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Duet for life: Is alexithymia a key note in couples' empathy, emotional connection, relationship dissatisfaction, and therapy outcomes?

Pamela D. McNeill
Edith Cowan University

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Duet for Life: Is Alexithymia a Key Note in Couples’ Empathy, Emotional Connection, Relationship Dissatisfaction, and Therapy Outcomes?

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This thesis is submitted in fulfilment of the
requirements for the award of Doctor of
Philosophy in Clinical Psychology.

Date of submission: 31 March 2014

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

STATEMENT OF CONFIDENTIALITY

Ethical clearance from the Edith Cowan University Ethics Committee was granted prior to the commencement of the research. The confidentiality and privacy of the informants were protected at all times, including all correspondence between myself and research supervisors, colleagues, and all other persons.

ABSTRACT

Alexithymia is an emotion-related construct involving difficulties identifying, describing, and processing emotion, which hinder the capacity to provide empathy, and the development of emotionally connected intimate relationships. To date, there has been minimal investigation of the impact of alexithymia on community couples' relationships, no associated examination of clinical couples, and no consideration of therapists' knowledge of alexithymia as a source of influence in couple therapy outcomes.

Studies 1 and 2 investigated alexithymia in 170 community couples and 17 therapy couples, respectively, in association with their empathy provided, empathy received, emotional connection components (i.e., turn toward, turn away, turn against, positive emotional connection), and relationship dissatisfaction. Study 3 examined 61 couple therapists' knowledge and experience of alexithymia.

Alexithymia was assessed with the Toronto Alexithymia Scale (TAS-20), which generates a total alexithymia score, and three subscale scores of *difficulty identifying feelings* (DIF), *difficulty describing feelings* (DDF), and *externally oriented thinking* (EOT) (Bagby, Parker, & Taylor, 1994). Empathy provided and empathy received were measured with the Barrett-Lennard Relationship Inventory (BLRI MO and OS; Barrett-Lennard, 1986). A scale was developed to assess the emotional connection components. Relationship dissatisfaction was measured with the revised Marital Satisfaction Inventory (MSI-R; Snyder, 1997). Therapists' data were gathered via personal interviews.

Findings for the community couples indicate that husbands' and wives' own TAS-20, DIF, and DDF predicted all of their own outcome variables in the expected positive and negative directions; their EOT predicted decreased empathy provided and increased turn against. Relationally, husbands' and wives' TAS-20 and DDF predicted lower empathy provided and empathy received in each other, and DDF also predicted higher partner relationship dissatisfaction. Clinical husbands' TAS-20, DDF, and EOT were associated with decreases in their own empathy provided. These variables, plus DIF, were related to lower turn away in their wives. Clinical wives' DIF was associated with their own decreased empathy provided and increased relationship dissatisfaction, and EOT was associated with increased turn away. Wives' DDF was related to higher turn away in their husbands.

Discrepancy analyses with the community couples found that husbands' outcomes were predicted by discrepancies in TAS-20, DIF, DDF, and EOT, and wives' outcomes were predicted by TAS-20 partner differences. The discrepancies between the partners predicted their empathy and emotional connection, and the effects varied for husbands and wives.

Mediation analyses with the community couples indicate that for husbands, two pathways fully mediated the association between alexithymia and relationship dissatisfaction. One pathway was through lower empathy received, leading to higher turn away. The second pathway was through lower empathy received, leading to lower positive emotional connection. Two partial mediation pathways were found for wives.

Comparisons between the community and clinical couples found no significant between-group differences on the alexithymia variables; however, a greater proportion of clinical husbands and wives had a high level of total alexithymia. Clinical partners were also significantly lower than community partners on empathy provided, empathy received, turn toward, and positive emotional connection, and higher on turn against, and relationship dissatisfaction. Additionally, clinical partners had significantly greater TAS-20 and DDF discrepancies when wives' scores were higher than their husbands' scores.

Interviews with couple therapists found that, although therapists recognised the emotion-related features of alexithymia, the majority of therapists had minimal awareness, or understanding, of the alexithymia construct.

The findings are discussed in relational terms and with a focus on their potential to advance therapeutic practise and treatment outcomes for couples. Therapists' low awareness of alexithymia is emphasised, as is the need to disseminate clinically based education about alexithymia.

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Edith Cowan University (ECU)

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NOTES TO THE READER

In the interest of clarification for readers, explanatory notes are provided regarding the research, and the thesis presentation.

The Research

Essentially, this research is directed toward clinical aspects involved in alexithymia, couples' relationships, and couple therapy outcomes. Although one study is devoted to a nonclinical community sample of couples, this serves a foundational purpose for the topic under investigation.

Spelling and Vernacular

Because this research was conducted in Australia, by an Australian, I have remained faithful to the spelling and vernacular that is customary in my country; for example, the word 'utilize' is presented as 'utilise'. In Australia, a piece of work such as this is generally referred to as a thesis, and that term is applied here. In other countries, it may be known by a different name, such as a dissertation.

Terminology

Throughout this thesis, and within the literature cited herein, a number of terms are utilised that require some clarification.

Where the term *marital* is applied, it may refer to both legally married and de facto couples. The term *de facto* refers to couples who live together in a committed intimate relationship yet are not legally married. The terms *cohabiting couples* and *intact couples* refer to couples who live together in a marital or de facto relationship.

The terms *husband*, *wife*, *partner*, and *spouse*, are used interchangeably to refer to either the male or female member in the relationship.

With respect to the order in which the partners' genders are presented, consideration was given to whether male or female spouses would be listed first. Ultimately, the decision was made to maintain consistency by listing males first and females second. This was to avoid the disjointed sense of writing, and reading, that occurred when attempting to alternate the terms. In appreciating the age of political correctness in which we live, this in no way reflects a view of one gender being more important than the other gender.

The terms *marital satisfaction*, *marital dissatisfaction*, *marital quality*, and *dyadic/marital adjustment* are used interchangeably to refer to couples' satisfaction or

dissatisfaction with their intimate relationships. As the thesis progresses to the results, the term *relationship dissatisfaction* is used exclusively because it aligns with the variable and measure utilised in this research.

The terms *therapist*, *clinician*, and *practitioner* refer to qualified professionals who work therapeutically with individuals and couples.

When referring to therapy with couples, the terms *relationship therapy*, *marital therapy*, and *couple therapy* are used interchangeably. The use of the term couple therapy rather than couples' therapy is deliberate.

At times throughout the thesis, the first letters of the variables' names are capitalised. Although not customary, this is to highlight the variables and to assist with ease of readability. This emphasis occurs mainly in the results and discussion sections. When discussing alexithymia in general, I am referring to high levels of the emotional difficulties.

In Australia, when discussing individuals within a psychologically therapeutic context, the term *client* rather than patient is generally applied, and this has been maintained herein.

Presentation of the Thesis

When writing, and reading, about research with individuals, the process is reasonably straightforward because the content is usually phrased in terms of individuals or groups of individuals. However, in dyadic research with couples, this becomes more complicated, particularly when reporting the findings and their interpretations. This is because the content may refer to male or female members of the couple, male, and female, members, the influences of one person's independent variables on their own dependent variables, or the influences of a partner's independent variables on the other person's dependent variables. In being mindful of this complexity, I have attempted to be as clear as possible with the overall content and the findings; however, the details may seem somewhat repetitive. For those who find this to be the case, summaries of the findings are provided at the end of each set of analyses.

Finally, given that the majority of readers will have a past or present familiarity of being in a couple relationship, I think the thesis is more interesting to read if one considers the content from a personal and/or "real world" perspective. This research is, essentially, a privileged snapshot of couple partners' shared emotional worlds, and the influences these have on their intimate relationships – an experience to which most of us can relate.

*“Life is lived in relationships,
and the quality of those relationships
has much to do with how life turns out.”*

(Lewis, 1998, p. 582)

CHAPTER ONE

Introduction

There is little doubt that emotions play an important role in life and are fundamental to the human experience (Cheng, Chen, Lin, Chou, & Decety, 2010; Greenberg & Safran, 1987). They could be viewed as the “subjective spices of life” (Thompson, 1988, p. 3) that provide quality, intensity, and meaning to existence (Jourard, 1974). As key components of temperament and personality, emotions and their arousal influence life experiences, motivate and direct behaviour and performance (Cloninger, 1996), assist in decision-making, and help to foster intimacy in relationships (Gottman, 1999). Emotions are also valuable sources of information as they are a readily available ‘readout’ of one’s internal state and therefore facilitate adaptation and self-regulation (Buck, 1993; Grotstein, 1997).

Most people have some capacity to access and utilise their emotions; they are able to identify and express their feelings, empathise with the feelings of others, and enjoy emotionally connected intimate relationships. For around 10% of the non-clinical general population, however, this is not the case (Franz et al., 2008). In this group of people, whilst there may be awareness of the physical sensations of emotional arousal, there are underlying problems in the cognitive processing and regulation of emotions, which affect the ways in which individuals experience and express emotion (Bagby & Taylor, 1997a). These people may suffer from alexithymia.

Alexithymia is a Greek word translating to “no words for mood or emotion” (Sifneos, 1973, p. 256). The term denotes a stable, multifaceted, dimensional, and cross-cultural personality construct. The construct encompasses difficulty identifying feelings and distinguishing feelings from the body sensations of emotion, difficulty describing and elaborating on feelings, limited imaginal processes, and having a thinking style that is focused on external details rather than on inner experience (Bagby & Taylor, 1997a).

When individuals have significant degrees of alexithymia, they can have a sense that they are different from other people; however, they are unable to understand why, or what to do about it. Subsequently, in lacking understanding of their own emotions, they have difficulty understanding or empathising with the feelings of others (Bagby & Taylor, 1997a; Dawda & Hart, 2000; Grabe, Spitzer, & Freyberger, 2001; Grynberg, Luminet, Corneille, Grézes, & Berthoz, 2010; Krystal, 1979; Parker, Taylor, & Bagby, 2001; Swiller, 1988). In turn, these deficits contribute to difficulties forming and/or maintaining meaningful intimate relationships (Bagby & Taylor, 1997a; Swiller, 1988). Thus, the defining and associated features of alexithymia can adversely influence couples' relationships, which is further complicated when a highly alexithymic person forms a relationship with someone who is more emotionally competent and aware (Swiller, 1988; Taylor, 2001). In other words, such couples have discrepant degrees of alexithymia.

When relationships are formed between partners with discrepant degrees of alexithymia, the interpersonal experience may become problematic because emotional competence, empathy, and emotional connection, are factors that can determine the success and quality of couples' relationships (Barrett-Lennard, 1997, 2003; Gottman, 1999; Gottman & DeClaire, 2001). The importance of these factors is underscored by findings that their absence is strongly associated with divorce (Gottman, 1999; Gottman & DeClaire, 2001).

Although the general literature on alexithymia is substantial, the research base pertaining to alexithymia and couples' relationships is comparatively sparse. However, findings across the relational studies indicate a consensus that, within cohabiting heterosexual married and/or de facto couples, alexithymia is associated with partners' relationship dissatisfaction (Cordova, Gee, & Warren, 2005; Dunham, 2008; Eid & Boucher, 2012; Eizaguirre, 2002; Foran, O'Leary, & Williams, 2012; Frye-Cox & Hesse, 2013; Mirgain & Cordova, 2007; Wachs & Cordova, 2007). Importantly, in studies examining mediating variables, findings suggest that the impact of alexithymia on relationship satisfaction may not be direct, with intimate safety (Cordova et al., 2005; Dunham, 2008; Mirgain & Cordova, 2007), loneliness, and intimate communication (Frye-Cox & Hesse, 2013) having been identified as mediators.

Two studies have examined the relationships between alexithymia, empathy, and couples' relationship satisfaction. Both studies looked at the alexithymia-related features of difficulty identifying feelings, and difficulty describing feelings, and utilised a measure of empathy provided to others (i.e., Interpersonal Reactivity Index, IRI, Davis, 1980). One

study found higher difficulty identifying feelings to be associated with greater discomfort in the presence of others' suffering (personal distress) (Wachs & Cordova, 2007). The second study tested a range of emotion skills that included the above-named two alexithymia features and the IRI subscales of empathic concern, perspective taking, and personal distress; however, the authors assimilated these variables into composite variables of five and 10 emotion skills, which created a difficulty in distinguishing specific effects. Overall, women were found to be more emotionally skilful than men, to have greater empathic concern, and to experience less discomfort in the presence of others' suffering (personal distress) (Mirgain & Cordova, 2007).

Alexithymia discrepancies between partners seem to have been investigated in only one study. Findings indicated that such differences are associated with decreases in relationship quality for the spouse with the higher alexithymia as well as the partner who is more emotionally competent (Yelsma & Marrow, 2003).

The findings from the previous research examining alexithymia and couples' relationship (dis)satisfaction have provided a valuable empirical base; however, a number of limitations are present. For instance, there were inconsistencies in the features of alexithymia that were examined, and some of the studies did not account for the potential nonindependence of the dyadic data (e.g., Cordova et al., 2005; Dunham, 2008; Eizaguirre, 2002; Foran et al., 2012; Mirgain & Cordova, 2007; Wachs & Cordova, 2007). Also, within the mediation analyses, only one study tested both the direct and indirect effects of the associations (i.e., Frye-Cox & Hesse, 2013), which is an essential phase when testing mediation processes.

Another limitation (in both the general and the relational alexithymia research) is the focus on empathy *provided* to others, with no attention given to how alexithymia may influence empathy *received* from others. Additionally, there appears to have been no prior investigation of the influence of alexithymia on emotional connection variables. Therefore, it is currently unknown whether alexithymia is associated with the ability to receive empathy, or whether alexithymia is related to indices of emotional connection.

Furthermore, although the previous relational findings have indicated the presence of mediating variables between alexithymia and relationship dissatisfaction, as with most research, there does not appear to have been any attempt to apply this knowledge beyond informing the literature. Given the cited difficulties that highly alexithymic individuals have with empathy and emotional connection, and the importance of these factors in

couples' relationships, the current research will investigate the mediating roles of these variables with a view to informing clinical practise. If shown to mediate between alexithymia and relationship dissatisfaction, it may be that empathy and emotional connection strategies could be targeted within therapy to improve the relationships of couples with discrepant degrees of alexithymia.

In the previous research examining alexithymia and couples, all of the samples were from the general population, and the absence of studies examining alexithymia within couples who are having therapy for their relationship distress represents an important gap in the clinical knowledge base. This particularly concerns how alexithymia may be associated with therapy couples' relationship dissatisfaction, whether therapy couples differ from general community couples, and whether a distinguishing feature between therapy and community couples is that of alexithymia discrepancies between partners.

Supporting the importance of this is relationship research indicating that spouses' mismatches in their expression and experience of emotion create relationship problems and can predict divorce with 80% accuracy (Gottman, 1999). Extrapolating from this, it seems likely that couples attending relationship therapy due to alexithymia-related issues would have discrepant degrees of alexithymia (e.g., Swiller, 1988). Indeed, Swiller (1988) suggested that the motivation for such therapy usually arises from the more emotionally aware partner being dissatisfied with a "lack of 'communication' or of 'closeness' in the relationship" (p. 51).

It appears that Swiller (1988) is the only author to address the issue of alexithymia within couple therapy, and his paper has provided a cogent anecdotal account of the processes involved in psychotherapy with partners who have differing degrees of alexithymia. Encouragingly, Swiller (1988) indicated that marital therapy is possible with such couples, and he offered some guidance regarding treatment challenges that may be involved for both the couple and the therapist.

Anecdotal and empirical evidence suggest that the therapeutic challenges involved with alexithymic-discrepant couples arise from the inherent difficulties of treating individuals with high levels of alexithymia, and the tendency for treatment outcomes to be poor (e.g., Freyberger, Kunsebeck, Lempa, Wellman, & Avenarius, 1985; Ogrodniczuk, Piper, & Joyce, 2011; Sifneos, 1975; Swiller, 1988; Taylor, 1977, 1997b; Taylor & Bagby, 2013). Correspondingly, with couple therapy, although treatment is of great benefit for many couples, around one third of couples leave treatment having achieved few positive gains

(Gurman, 2011), less than half of all couple partners gain equal benefits from therapy (Bambling, 2007), and generally, the gains that have been achieved are not maintained over time (Atkinson, 2005; Bambling, 2007; Doss, Simpson, & Christensen, 2004; Gottman, 1998). Therefore, it is possible that there is a certain group of couples who encounter difficulties in therapy, and that these couples may have alexithymia discrepancies that have not been recognised by their therapists.

This proposal seems plausible when considering the early statement by Bagby, Parker, and Taylor (1991a) that the alexithymia construct “is relatively unknown to clinical psychologists” (p. 222). Although this statement specified clinical psychologists, I believe it could be generalised to include practitioners from a range of therapeutic orientations.

The issue of therapists’ lack of awareness of alexithymia is of concern because it has been established that the greatest sources of influence in treatment outcomes are those of the client, the therapist, and the working alliance that is formed (Wampold, 2010), with the therapist deemed to have the most pivotal role (Wampold, 2001, 2010). Therefore, if most therapists are indeed unaware of the alexithymia construct, their lack of knowledge may be a key influencing source that undermines the success of therapeutic outcomes.

With reference to the treatment of intimate relationships, Gottman (1999) stated “emotion and how people feel about expressing it appear to be central to almost all the therapy we do with couples” (p. 307). Given the emotional difficulties of alexithymia, therapists who are unaware of the construct may struggle with the communicative styles of these spouses, and interpret their lack of emotional responsiveness as resistance or noncompliance rather than as a deficit. Subsequently, this can result in therapists experiencing negative reactions toward their clients (Krystal, 1982-83; Ogrodniczuk et al., 2011; Swiller, 1988; Taylor, 1977).

Therapists’ negative reactions to clients may also arise from their unrealistic expectations of the emotional capacity of highly alexithymic partners (Krystal, 1988; Ogrodniczuk, 2007), and their failure to recognise that treatment modification is needed to accommodate the emotional deficits (Swiller, 1988; Taylor, 1997b). Additionally, therapists’ negative reactions can be exacerbated by such clients’ inability to form a therapeutic attachment (Mallinckrodt, King, & Coble, 1998), and their use of immature defences and maladaptive distress management behaviours (Helmes, McNeill, Holden, & Jackson, 2008; Parker, Taylor, & Bagby, 1998; Taylor & Bagby, 2013).

Of further importance is that if therapists do misinterpret clients' alexithymic difficulties as resistance or noncompliance, they might urge clients to attempt emotion-focused tasks that are beyond their capabilities. This may increase clients' anxiety and distress, which can trigger underlying life-endangering medical conditions (Krystal, 1979; 1982-83). The therapeutic alliance will likely be disrupted, couples may drop out of therapy prematurely, and treatment outcomes will suffer (McCallum, Piper, Ogrodniczuk, & Joyce, 2002). Hence, as suggested by Ogrodniczuk (2007), "alexithymia may exert some of its negative effect through the therapist" (p. 5). Surprisingly, it appears that therapists' awareness of alexithymia as a significant factor in therapeutic outcomes has not been considered in either the general or the relational research into alexithymia.

As shown, a number of limitations have been identified in the research regarding alexithymia and couples' relationships, and the way in which alexithymia may influence their therapeutic outcomes. The identified limitations provide the context for the current research.

Purpose of the Research

This research was designed to extend the relational and clinical literature on alexithymia and couples' relationship distress, and the influence of alexithymia in couple therapy outcomes. As with previous research on alexithymia and couples' relationships, Study 1 examined a general community sample of couples. In contrast to the previous research, Study 2 examined a sample of clinical couples who had recently started having relationship therapy, and it evaluated comparisons between clinical and community couples. Study 3 extended the clinical focus by exploring the way in which therapists may be significant sources of influence in couple therapy outcomes. An outline of the research is presented below.

In order for the research to have clinical value, an initial task was to identify key variables that are associated with alexithymia and couples' relationship dissatisfaction. The main aim of identifying these variables was to inform the therapeutic treatment of couples comprising partners who have notable discrepancies in their levels of alexithymia. The selection of the variables was thereby based on two criteria: Firstly, there needed to be empirical evidence of their importance to both alexithymia and to couples' relationship dissatisfaction. Secondly, the variables were required to have behavioural components that

could be successfully learned and utilised by both a highly alexithymic partner and a more emotionally competent partner.

The behavioural component was important due to the recognised difficulties treating highly alexithymic individuals (e.g., Freyberger et al., 1985; Ogrodniczuk et al., 2011; Sifneos, 1975, Taylor, 1997b), the added complexity when treating couples who have alexithymia discrepancies (Swiller, 1988), and the inability of highly alexithymic individuals to respond to others from an emotional basis. The behavioural rationale was that although highly alexithymic partners are unable to respond to their spouses in an emotional way, those who are motivated to improve their relationships may be able to respond from cognitive and activity-based standpoints.

Given these requirements, it seemed pragmatic to consider variables that have been found to improve the quality of couples' relationships, and could involve treatment strategies that have emotional components yet do not rely completely on emotional competence. Essentially, I sought to discover a behavioural method of accomplishing an emotion-related outcome that is enhancing for both partners and achievable regardless of emotional ability. Based on these aims, the two variables identified as fulfilling the criteria were those of empathy in the form of empathic understanding, and emotional connection.

Empathy

In the current research, empathy is based on Godfrey Barrett-Lennard's conceptualisation of empathic understanding as an interactive process of responsivity between partners (Barrett-Lennard, 1981, 1983, 1986, 1997, 2003). As such, it involves the two components of empathy provided to a partner and empathy received from a partner. This concept of empathy represents a relational perspective, which differs from other concepts of empathy that focus only on the aspect of empathy provided to others (e.g., Davis, 1980).

Empathy has been found to be inversely associated with alexithymia (e.g., Grabe et al., 2001; Grynberg et al., 2010), and positively associated with relationship satisfaction (Barrett-Lennard, 1997, 2003; Gottman, 1999; Guerney, 1977). As already noted, the research on alexithymia and empathy has been hindered by the focus on empathy *provided*, with no investigation of whether those who are highly alexithymic are able to *receive* empathy. Within the relational alexithymia literature, Wachs and Cordova (2007) found that empathy was not associated with relationship satisfaction; however, these authors

utilised only two features of alexithymia (namely, difficulty identifying feelings and difficulty describing feelings) and an empathy measure that evaluates empathy components that are provided by individuals.

From a behavioural viewpoint, empathic understanding may be attained through one of the most influential techniques utilised with couples in relationship therapy - that of the listener-speaker exercise (Gottman, 1999; Guerney, 1977). In this exercise, each partner takes a turn to voice his or her concerns, thoughts, and feelings as ‘I’ statements (for example, “I think ...”, “I feel ...”), after which the other partner suspends judgement or argument, and paraphrases back the content and meaning of the message. The partners continue to discuss the statement in this way until the speaker confirms that the listener has understood and captured the full meaning of the message (see Gottman, 1999).

Rather than depending completely on emotional competence, the listener-speaker exercise requires partners to actively focus their attention on each other, listen carefully without judgement, defensiveness, or argument, and to reflect back their partner’s concerns until both spouses agree that the message has been understood accurately. In this, both partners have the opportunity to experience a sense of being heard, acknowledged, and accepted. My proposal is that when taught within a therapeutic setting, and utilised by couples outside of the sessions, the technique could be a relatively simple yet powerful strategy to facilitate mutual empathic understanding between spouses with discrepant levels of alexithymia.

Emotional Connection

The emotional connection concept is based on John Gottman’s Sound Marital House theory of marriage, and the Bank Account Model (Gottman, 1999) in which the components of ‘turn toward’, ‘turn away’, and ‘turn against’ are considered foundational elements within marriage (Gottman, 1999; Gottman & DeClaire, 2001). Although there does not appear to have been any empirical investigation of alexithymia and emotional connection, anecdotal reports indicate that individuals with a high degree of alexithymia have difficulty forming and maintaining emotionally connected relationships with others (Bagby & Taylor, 1997a; Swiller, 1988). Within the general relationship literature, the emotional connection variables of ‘turn toward’, ‘turn away’, and ‘turn against’ have been found to be fundamental to the success and quality of couples’ relationships, and associated with divorce (Gottman, 1999; Gottman & DeClaire, 2001).

The theory relating to the emotional connection variables proposes that when attempting to connect with others, people make verbal and nonverbal bids to each other for emotional closeness. In response to such bids for closeness, individuals typically react in one of three ways: (1) turn toward the other (responding in a positive and interested way), (2) turn away from the other (responding by ignoring the person or acting preoccupied), or (3) turn against the other (responding with belligerence, anger, or criticism). The Bank Account Model (BAM) proposes that when couples consistently turn toward each other, they accumulate an emotional bank account that is rich in positive responding, which can serve as an effective buffer during times when conflicts arise (Gottman, 1999; Gottman & DeClaire, 2001).

From a behavioural perspective, the actions involved in the ‘turn toward’, ‘turn away’, and ‘turn against’ manifestations of emotional connection are not reliant on emotional capacity, and the concept of the BAM is easily understood. Therapeutically, the behaviours can be directed toward the couple’s specific needs, and incorporated into their everyday interactions. The gradual accumulation of positive interactions elevates the positive to negative interaction ratio, which is considered a key aspect in the development of marital friendship and connection. Once again, the use of this concept would be achievable by both highly alexithymic partners and partners with greater emotional ability.

Through empathy and emotional connection, there appears to be an opportunity for both an alexithymic partner and an emotionally competent partner to have many of their needs satisfied, albeit in different ways. Within therapy, the very process of discussing these concepts may serve as a clinical intervention because such discussion could reveal the couple’s concerns in a manner that is not anxiety producing for the highly alexithymic partner. Moreover, the achievability of the behavioural components for both partners may ease any sense of hopelessness they may have about resolving their emotional disparity, strengthen their bond, and interrupt negative relationship patterns.

Although examination of couples’ empathy and emotional connection addresses limitations in the alexithymia literature, a consideration of these variables as potential mediators could provide a working model for treating couples for whom alexithymia discrepancies create relational distress. It seems clear that treating alexithymic-discrepant couples is challenging, and there is a need to modify the therapeutic approach (Swiller, 1988). It is therefore suggested that use of the empathic understanding and emotional

connection strategies may provide therapists with a realistic way of reducing couples' negative communication patterns and improving their relationship satisfaction.

If these strategies are utilised by therapists within an atmosphere of understanding, patience, and optimism, therapeutic alliances may be strengthened. Stronger alliances may reduce the likelihood of couples terminating therapy, which will provide opportunities for obtaining successful treatment outcomes. Obtaining such positive outcomes, however, is reliant upon therapists having knowledge about both alexithymia and the implications of the emotional deficits for couples and their treatment.

The Current Research

The current research examined the effects of couples' alexithymia on their empathy provided, empathy received, emotional connection (consisting of turn toward, turn away, turn against, positive emotional connection), and relationship dissatisfaction. The research expanded the previous sampling by including a group of community couples and a group of clinical couples who had recently commenced relationship therapy. The data were analysed according to the recommended dyadic data analysis guidelines (Kenny, Kashy, & Cook, 2006). In addition, a sample of relationship therapists was examined as a possible source of influence in couples' therapeutic outcomes.

Community Couple Study

The community couple study examined the relationships among alexithymia and the outcome variables from four main perspectives. Firstly, correlational analyses provided a general picture of the intrapersonal and interpersonal associations among the variables. Secondly, the Actor-Partner Interdependence Model (APIM; Kenny et al., 2006) assessed the associations between the personal (actor) and partner effects of alexithymia and the outcome variables. Thirdly, partners' alexithymia discrepancies were examined in terms of their effects on the outcome variables. Fourthly, Structural Equation Modeling (SEM; Jöreskog & Sörbom, 2004) was utilised to test whether the empathy and emotional connection variables mediate the relationship between alexithymia and relationship dissatisfaction.

Clinical Couple Study

The data from this study enabled comparisons to be made between the clinical (therapy) and community couples in terms of their alexithymia, empathy, emotional connection, and relationship dissatisfaction variables. Comparisons were also conducted to assess the extent to which alexithymia discrepancies might discriminate between the groups.

Therapist Interview Study

Data from interviews with relationship therapists were utilised to shed some light on their awareness of the alexithymia term and knowledge of the alexithymia construct. Comparisons were made between clinical psychologists and practitioners trained in other therapeutic orientations.

Structure of the Thesis

The thesis commences with a literature review that includes a brief outline of the salient issues upon which the research is based, an overview of the processes of emotion, and a review of the alexithymia literature. The literature review includes the origins and development of the construct, aetiology, salient features of alexithymia, interpersonal and relational aspects of alexithymia, and treatment processes involved in psychotherapy with highly alexithymic individuals and couples who have discrepant levels of alexithymia (Chapter 2). Chapter 3 comprises an outline of the conceptual and empirical links that informed the research rationales, together with a brief description of each of the three studies.

Chapter 4 presents the study with community couples. This is the foundational study in the research, and commences with an overview of previous research on alexithymia and couples' empathy, emotional connection, and relationship (dis)satisfaction, together with the current study design. The methodology is then detailed, which is followed by the analyses and results. The analyses and results are organised in four phases, with each phase including a brief overview of the main issues, previous research specific to those issues, and the current analytical strategy. Phase 1 comprises preliminary data analyses and assessment of intrapersonal and interpersonal correlations. Phase 2 examines the personal and partner effects between the variables through utilising the APIM (Kenny et al., 2006). Phase 3 investigates the effects of spouses' TAS-20, DIF, DDF, and EOT discrepancies on their outcome variables. The Phase 4 analyses, utilising SEM, explore

empathy and emotional connection as mediators between alexithymia and relationship dissatisfaction.

Chapter 5 presents the study with clinical (therapy) couples. This chapter commences with an overview of the issues, the study design, and the research questions. These are followed by the methodology, analyses, and results. The analyses begin with preliminary data analyses and assessment of intrapersonal and interpersonal correlations. Findings are then detailed for comparisons between the clinical and community couples' alexithymia and outcome variables, and couples' alexithymia discrepancies.

Chapter 6 contains the therapist interview study, which includes an overview of the issues, study design, and research questions, which is followed by the methodology, analyses and results.

Chapter 7 comprises the discussion of the findings, conclusions regarding the implications and clinical applications of the research, and recommendations for informing the clinical field about alexithymia.

CHAPTER TWO

Literature Review

Most adults aspire to sharing a close and loving intimate relationship with a significant other, and these relationships play a vital role across the lifespan (Cheng et al., 2010); however, love has not always been the basis for these significant relationships. Up until around 200 years ago, it was considered a radical idea that marriages should be centred on emotion (Coontz, 2007, p. 9). Prior to that time, most people entered into marriage to acquire wealth, influence, and social status, to improve their family labour force, and/or to seal military alliances (Coontz, 2007). Indeed, defenders of these early arrangements “warned that love would be the death of marriage” (Coontz, 2007, p. 9).

By the 1910s and 1920s, the notion of marriage being based on emotion was firmly established, and there was societal expectation that marriage would provide men and women with their greatest satisfaction in life. Unfortunately, many couples found that their marriages failed to provide them with the degree of love, companionship, and emotional intimacy they expected, and divorce rates increased sharply (Coontz, 2007, p. 11). Since the 1980s, divorce rates have gained some stability, which seems largely due to marriage being taken more seriously as a *relationship* between two individuals; however, along with this approach, couples have “higher emotional expectations than ever before” (Coontz, 2007, p. 15). Given such high emotional expectations, and the fact that divorce continues to remain prevalent (ABS, 2012), it is important for research to expand the search for previously unexamined emotion-related factors that may contribute to the failure of couples’ relationships.

Based on longstanding and dedicated marital and emotion-related research, an ideal couple relationship is now considered to include the fundamental elements of emotional competence and compatibility, the giving and receiving of empathic understanding, and having a meaningful emotional connection (Barrett-Lennard, 1997, 2003; Gottman, 1999; Gottman & DeClaire, 2001; Lewis, 1998).

The alexithymia difficulties can lead to relationship dissatisfaction because the deficits limit a person’s emotional competence, the ability to provide empathy, and the development of emotionally connected bonds with others. In addition, spouses’ emotional

compatibility is compromised when one partner is highly alexithymic and the other partner is more emotionally competent and aware. This suggests that people who have high levels of alexithymia lack the very abilities that are required to attain successful and fulfilling relationships (Swiller, 1988).

When an intimate relationship is formed between partners who differ in their degrees of alexithymia, the emotional mismatches can ultimately become distressing for both spouses (Gottman, 1999; Swiller, 1988; Yelsma & Marrow, 2003). As a result, couples may seek professional therapeutic help to resolve their distress. Although relationship therapy is beneficial for many couples (Gurman, 2011), treatment with couples that have alexithymic discrepancies will be challenging for both the couple and the therapist. This is due to the overlapping aspects of the individual's alexithymia deficits, partners' differing emotional capacities, the difficulties associated with treatment of alexithymia (Swiller, 1988; Taylor, 1977, 1997b) and relationship therapy, and the limited long-term success of therapy with couples (Bambling, 2007; Doss et al., 2004; Gottman, 1998, 1999; Gurman, 2011). Furthermore, with the therapist having a pivotal role (Wampold, 2001, 2010), the process is reliant on the clinician knowing about alexithymia and recognising the true nature of the condition for which treatment is being sought.

The noted conceptual and empirical links between alexithymia, couples' relationships, and the treatment difficulties within both fields, provide the template for the current research. In seeking to shed light on the nature of these linkages, this research examines couples' alexithymia in association with their empathy, emotional connection, and relationship dissatisfaction, and the role that couple therapists may have in couples' treatment outcomes.

The implications of alexithymia within these areas are serious; however, in order to fully appreciate the alexithymia deficits and their influences, it is important to have some understanding about the processes involved in emotion. Therefore, an overview of the salient emotion literature is provided below.

The Processes of Emotion

Early views of emotion espoused a negative perspective that centred on its disorganised and irrational nature, as well as the dichotomy between cognition and affect (Somers, 1981). However, as Planalp and Fitness (1999) indicated, it is now clear that cognition and emotion are symbiotic and have complementary functions in that "the cognitive system

orients us to what makes sense, whereas the emotion system orients us to what matters” (p. 734).

From an empirical viewpoint, emotions have been established as composite states that originate in the brain (Damasio, 1999; Moriguchi & Komaki, 2013; Pally, 1997), which results in thoughts and feelings being inextricably linked (Somers, 1981; Taylor, Bagby, & Parker, 1997a). As such, emotions operate within a dynamic and integrated system that is influenced by genetics, neural circuitry, biological events, developmental and environmental experiences, plus physiological, cognitive, and behavioural actions (Damasio, 1999; Moriguchi & Komaki, 2013; Pally, 1997).

Antonio Damasio proposed a theory of emotion that will be utilised here to highlight the main processes that occur (Damasio, 1999). In Damasio’s view, emotions are induced in the brain and experienced in the body (p. 8), and there are three related stages of emotion processing; “*a state of emotion*, which can be triggered and executed nonconsciously; *a state of feeling*, which can be represented consciously or nonconsciously; and *a state of feeling made conscious*, i.e., known to the organism having both emotion and feeling” (p. 37). In separating the two feeling elements, Damasio stated “‘having a feeling’ is not the same as ‘knowing a feeling’” (p. 284). This is because at times, we may not be consciously aware that a feeling is taking place, and knowing we are having a feeling relies on consciousness (pp. 36-37). Consciousness of feelings is required for those feelings to influence the person beyond the here and now (p. 37). If there is consciousness of a feeling, there is also opportunity for reflection on that feeling, and this is yet another step up in the cognitive process (p. 284).

In defining emotion, Damasio (1999) posited “emotions are complicated collections of chemical and neural responses” (p. 51) that form patterns that are based on an organism’s “biologically determined processes”, and serve the purpose of regulation of the organism (p. 51). Essentially, emotions are nerve activation patterns that correspond to the internal state of the person, and these patterns are obtained from neural and hormonal feedback mechanisms. There are a number of brain sites whose activity patterns are involved in producing an emotion; these sites include “nuclei in the hypothalamus, brain stem, basal forebrain, amygdala, and ventromedial prefrontal cortices” (p. 280). In addition, “the activity pattern can be represented within second-order brain structures” (p. 280), which include the thalamus and cingulate cortices (p. 280).

Furthermore, Damasio (1999) suggested that emotions can be induced through experiences with external objects and situations, and internally through memories that are represented as images in the thought process (p. 56). Once an emotion state is induced and the neural patterns are activated, biological changes occur in the body state and the cognitive state. Changes in the body state, called the ‘body loop’, involve chemical messages sent via the bloodstream and electrochemical messages sent via nerve pathways. Through these messages, “the body landscape is changed and is subsequently represented in somatosensory structures of the central nervous system, from the brain stem on up” (Damasio, 1999, p. 281). An associated alternative process is that of the ‘as if body loop’, where the body proper is bypassed and the changes are created under the control of other neural sites. This appears to be an adaptive process that brings about rapid transfer of the chemical messages and thereby conserves time and energy.

Along with the neural patterns of emotion, nerve cell activity in the brain produces patterns that are known as cognitive representations; thus, thinking also occurs through patterns of neural activation. Changes in cognitive states occur when the emotion process results in the secretion of chemicals “in nuclei of the basal forebrain, hypothalamus, and brain stem”, and those chemicals are delivered to the cerebral cortex, thalamus, and basal ganglia” (Damasio, 1999, p. 281). When emotion interacts with cognitive representations, alterations occur in the state of viscera and the muscle contractions of the face, throat, trunk, and limbs, which produce further changes in several neural circuits within the brain itself (p. 282). This feedback information can then be used to adapt behaviour appropriately. When these changes are represented by images, and the images are accompanied by a sense of self awareness, they become conscious; this awareness results in the state of “feelings of feelings” (p. 282). With these processes, the reciprocal nature of emotion and cognition becomes apparent whereby “all emotions use the body as their theater ... but emotions also affect the mode of operation of numerous brain circuits” (p. 51). This is consistent with views that emotion and cognition have a bidirectional relationship, with cognitive processes such as attention, appraisal, mental representations, imagination, dreams, and expression leading to emotions and behaviour, which then leads to further cognitive processing, and so forth (Lazarus, 1991). Together, these aspects provide a psychobiological bridge between the mind and the body, and support the position that mental and physical phenomena interact in a reciprocal fashion (e.g., Thompson, 1988).

Damasio (1999) distinguished between primary emotions of happiness, sadness, fear, anger, surprise, and disgust, and secondary emotions of embarrassment, jealousy, guilt, and pride. He also introduced the concept of background emotions such as well-being or malaise, calm or tension, fatigue or energy, and anticipation or dread. Background emotions are generally observable to others, and these are in play when we can look at someone and sense that they are happy, edgy, excited, and so forth (pp. 50-51).

When emotions are activated, the patterns are specific to the individual, his or her unique circumstances, and the kind of emotion being induced. Some emotions occur “in a ‘burst’ pattern with a fairly rapid onset, peak of intensity, and a rapid decay. Anger, fear, surprise, and disgust are cases in point. Other emotions have more of a ‘wavelike’ pattern; some forms of sadness and all of the background emotions are prime examples” (Damasio, 1999, p. 341).

In addition, Damasio (1999) differentiated between emotion, feeling, mood, and affect. As such, an emotion is designated as a set of responses that is often able to be observed, and this leads to a feeling, which is “the private, mental experience of an emotion” (p. 42). When emotion states are frequent or extend over lengthy periods of time, they are referred to as moods. In this sense, “moods are dragged-out emotions along with the consequent feelings” (p. 342). When moods become pathological, they are described as mood disorders, with one example being depression. Depression occurs when the emotion of sadness is “not a single burst or a gentle wave, but a continuous mode of being, physically and mentally” (p. 341). When individuals remain in such a state for an extended time, changes occur in the endocrine system, autonomic nervous system, musculoskeletal system, and in the mental processing of images. A persistent mood and collection of responses may be referred to as affect, which encompasses emotions, feelings, and moods, and is generally the expressive element that is displayed toward an object or situation (p. 342).

The distinction between emotions and feelings is particularly important because, as Damasio (1999) indicated, whilst an emotion may be activated by any number of internal and external events, it is through feelings that emotions “begin their impact on the mind; but the full and lasting impact of feelings requires consciousness, because only along with the advent of a sense of self do feelings become known to the individual having them” (p. 36).

A further process, which is not directly addressed by Damasio (1999), is that of emotional expression. Indeed, the Latin verb *emovere* (meaning ‘to move out’ or ‘expel’) implies that “emotions involve a readiness to action” (Taylor et al., 1997a, p. 13). Emotional expression can be defined as the “observable behavioral component of emotion that occurs either automatically in response to arousal or more deliberately after cognitive processing” (Kennedy-Moore & Watson, 1999, p. 18).

Once there is awareness of feelings, the expressive response may be verbal or non-verbal, and determined by personal dispositions, developmental and socialisation experiences, situational factors, and/or cultural norms (Kennedy-Moore & Watson, 1999; Thompson, 1988); thus, expression forms an important and complex link between individuals’ internal emotional experiences and their external world. However, as shown, emotions *per se* are not concrete entities. In order for emotions and the ensuing feelings to have meaning, descriptive labels are required that accurately describe the experience (Pierce, Nichols, & DuBrin, 1983). Simply stated, we need words for our feelings.

For a variety of reasons, there may be times when it is more appropriate to *not* express emotion (Gross & Levenson, 1997), and attaining a balance between expression and non-expression is vital to a healthy adaptation to life (Jourard, 1974). Healthy emotional expression includes the capacity to experience a broad emotional range and the ability to choose appropriate expression or control of emotion (Jourard, 1974). Such expression also includes the capacity to engage in, and complete, the appropriate action sequence related to the emotion in question (Pierce et al., 1983). For example, if a loved one dies suddenly, and a full process of appropriate grieving is experienced to the point of acceptance and re-engagement in life, the action sequence could be said to have been completed. It is the completion of the sequence that is thought to provide maintenance of optimal psychological and physiological balance (Jourard, 1974).

Findings from research investigating the effects of emotional expression have shown positive associations with the areas of self-understanding and insight, self-acceptance, interpersonal communication, intimacy in relationships, problem-solving (Kennedy-Moore & Watson, 1999 review), personality, and psychotherapy (Dindia & Allen, 1992, review; Whelton, 2004). In addition to the personal and psychological benefits gained through emotional expression, there is strong evidence to suggest that expression of distressing emotions leads to improved long-term physical health (Pennebaker & Beall, 1986; Smyth, 1998). However, the ability to freely express emotions is not universal.

As Damasio (1999) suggested, “sometimes, we use our minds to hide a part of our beings from another part of our beings” (p. 29). This screening process may be conscious or unconscious and it can prevent a part of the mind from sensing the inner states of the body. This represents a disruption in the emotion process, and is symbolised as “vagueness, elusiveness, and intangibility of emotions and feelings” (p. 29). In other words, the emotion process occurs physiologically but it does not reach the level required for conscious mental processing. With human emotion and feeling pivoting on consciousness, there is a personal cost associated with this screening (p. 37). Screening precludes connectedness with a sense of self, knowing the feelings of one’s emotions, and the ability to utilise fully the constant internal adjustments that are natural responses to the process of life (pp. 29-30). As Damasio (1999) stated, “the neurological evidence simply suggests that selective absence of emotion is a problem” (p. 42). When emotion and cognition are aligned appropriately, they provide a support system for each other that is of assistance in rational decision-making; if there is imbalance, the organism cannot operate properly (p. 42).

Although not suggested by Damasio (1999), it could be hypothesised that such screening also has an interpersonal cost. If individuals are disconnected from their own emotions, feelings, and sense of self, it is likely that, by extension, they will be unable to understand and connect with those aspects in others. In turn, this will have an adverse impact on the ability to form meaningful emotional relationships with significant partners.

These emotional difficulties seem to reflect an underlying problem in the cognitive processing and regulation of emotions, which will influence the way individuals experience and express emotion. The dominant personality construct that is associated with such difficulties appears to be that of alexithymia.

To provide a context within which to place alexithymia and its associated research, the formation and investigation of the construct could be conceptualised as having had a temporal progression that has occurred in ‘waves’ across different fields of enquiry. Generally, the construct was named and formalised in response to the emotional difficulties of individuals with psychosomatic conditions, which led to alexithymia being examined in association with those medical disorders (Nemiah, Freyberger, & Sifneos, 1976; Sifneos, 1973).

Following the development of alexithymia measurement instruments (e.g., Bagby, Parker, et al., 1994; Taylor, Ryan, & Bagby, 1985), the research progressed to

investigation of alexithymia and psychiatric disorders, which expanded to include psychological conditions and personality constructs. Within this research, clinical reports provided information regarding the difficulties associated with the treatment of alexithymia and the need for modified forms of therapy that did not require client insight. The personal characteristics of those with high alexithymia were also considered, which provided a clearer picture of how the features may present in individuals (see Taylor, 2000; Taylor, Bagby & Parker, 1997b for review).

A new wave in direction occurred in 1988 when Swiller (1988) initiated a shift from an intrapersonal focus to recognising the interpersonal influences of alexithymia. Swiller's paper informed the field about treating individuals who have high levels of alexithymia, and couples comprising one partner who is highly alexithymic and the other partner who is more emotionally competent and aware. Although this paper was based on anecdotal rather than empirical data, it highlighted the complexities of alexithymia within the treatment of couples, and the need for an adapted form of couple therapy. However, despite this recognition of the importance of alexithymia within such relationships, it was not until 14 years later that empirical investigation specifically focused on the effect of alexithymia on cohabiting couples' marital quality (i.e., Eizaguirre, 2002). Since that time, a small and gradually emerging body of relationship research has extended the findings in this area.

Along with the interpersonal research progression, the work of John Ogrodniczuk and colleagues has advanced the treatment field through their examination of alexithymia within the therapy domain (Joyce, Ogrodniczuk, Piper, & McCallum, 2003; Joyce, Ogrodniczuk, Piper, & Sheptycki, 2010; McCallum, Piper, Ogrodniczuk, & Joyce, 2003; Ogrodniczuk, Joyce, & Piper, 2007, 2013; Ogrodniczuk, Piper, & Joyce, 2004, 2005, 2008, 2011; Ogrodniczuk, Piper, Joyce, & Abbass, 2009; Ogrodniczuk, Piper, Joyce, & McCallum, 2000; Ogrodniczuk, Sochting, Piper, & Joyce, 2012). These authors have redirected a focus to treatment processes that are involved with highly alexithymic individuals, and the relationship between the client and the therapist. Importantly, they have begun to draw attention toward the attributes of the therapist as a source of influence within alexithymia therapy outcomes.

As a result of the broad body of research conducted across the decades, recognition of alexithymia has been extended, and validation of the construct has occurred. To assist readers who may be unfamiliar with the construct, the review below provides an outline of

the origins and development of the construct, aetiology, salient features of alexithymia, intrapersonal and relational aspects of alexithymia, and treatment processes involved in psychotherapy with highly alexithymic individuals and couples who have discrepant levels of alexithymia.

Alexithymia: Origins and Development of the Construct

The term ‘alexithymia’ was coined by Sifneos in 1972 (Sifneos, 1973), and stems from the Greek: *a* = lack, *lexis* = word, *thymos* = mood or emotion, denoting a lack of words for feelings (Nemiah et al., 1976; Sifneos, 1973). Although the construct has gained substantial recognition over time, the associated constellation of affect-related disturbances was noted decades earlier within the fields of psychosomatic medicine and psychoanalytic psychiatry (Horney, 1952; MacLean, 1949; Ruesch, 1948; Shands, 1958).

Recognition of the disturbances emerged gradually due to consistent reports by clinicians and researchers in Europe and North America who were working independently of each other. These investigators noticed that a certain group of people who were being treated for medical and psychiatric conditions also had a number of affective difficulties. The difficulties included verbal expression of feelings and symbolic processes, a lack of emotional- and self-awareness, an inability to localise somatic sensations, minimal dream content, an absence of goal directed fantasy, intellectualising of problems, a pervasive externalised living style, a concrete operational way of thinking that focused on physical symptoms and the minutiae of external events, a need to exhibit socially acceptable behaviour, a sense of feeling empty and unrelated to anything or anyone, and problems with interpersonal relationships, (Horney, 1952; Krystal, 1968; MacLean, 1949; Marty & de M’Uzan, 1963; Nemiah & Sifneos, 1970; Ruesch, 1948; Shands, 1958). Essentially, the cognitive and affective difficulties were deemed to reflect a paucity of the entire emotional experience (Horney, 1952). Further attention was drawn to the difficulties as it became evident that such individuals had a poor response to therapy requiring intrapersonal or interpersonal insight (Horney, 1952; Kelman, 1952; Sifneos, 1973).

Progress in operationalizing the alexithymia construct occurred within the scientific community when an international conference held in London in 1972 proposed the need for a definitive definition, and research into the measurement and biological aetiology of alexithymia (Sifneos, 2000). In 1976, the 11th European Conference on Psychosomatic

Research, held in Heidelberg, Germany, firmly established the importance of alexithymia and its role in psychosomatic disorders (Bagby & Taylor, 1997a; Sifneos, 2000).

Sifneos (1996) indicated that the Heidelberg conference prompted the development of a variety of observer-rated, projective, Q-set, and self-report alexithymia measures. However, later scholars proposed that most of these early instruments were unsuitable for research or clinical purposes due to a lack of attention to psychometric theory, which resulted in unstable reliability and validity (e.g., Bagby & Taylor, 1997b). To overcome such deficits, a measurement-based, construct validation methodology was utilised to develop the 26-item (four-factor) Toronto Alexithymia Scale (TAS-26, Taylor et al., 1985). Following revision of the TAS-26, the measure was refined to the current three-factor 20-item TAS scale, which assesses total alexithymia, and three factors of *difficulty identifying feelings and distinguishing between feelings and physical sensations of emotional arousal*, *difficulty describing feelings to other people*, and *externally oriented thinking* (TAS-20; Bagby, Parker et al., 1994; Bagby, Taylor, & Parker, 1994; Parker, Taylor, & Bagby, 2003).

Since the development of the TAS scales, a variety of other alexithymia measures have emerged; examples of these include the Observer Alexithymia Scale (Haviland, Warren, & Riggs, 2000), The Rorschach Alexithymia Scale (RAS, Porcelli & Mihura, 2010), and The Psychological Treatment Inventory Alexithymia Scale (PTI-AS, Gori, Giannini, Palmieri, Salvini, & Schuldberg, 2012). All of these scales were developed for use with adults; however, measures have also been constructed to assess alexithymia in children and adolescents. Examples of these include The Alexithymia Scale for Children (Fukunishi, Yoshida, & Wogan, 1998), and the Emotional Awareness Questionnaire for Children (Rieffe et al., 2007).

Furthermore, some authors have examined whether the TAS-20 is suitable for assessment of alexithymia in adolescents. Heaven, Ciarrochi, and Hurrell (2010) utilised the two TAS-20 factors of ‘difficulty identifying feelings’ and ‘difficulty describing feelings’ to test 796 Grade 8 teenagers. Findings indicated that the briefer 12-item scale showed alexithymia to be distinguishable from the study’s dependent variables; however, in terms of factor structure, the two subscales loaded onto one single factor. The authors noted that this was “somewhat inconsistent with the original factor structure developed by Bagby, Parker, et al. (1994)”. Parker, Eastabrook, Keefer, and Wood (2010) examined whether the TAS-20 is suitable for assessment of alexithymia with young (aged 13-14

years), middle (aged 15-16 years), and older (aged 17-18 years) adolescents, and young adults (19-21 years). These authors found that the younger the age of the sample, the greater the deterioration in the quality of the measurement. They therefore do not recommend that this scale be utilised with adolescent samples until the measure undergoes further adaptation and psychometric validation.

In addition to these measures, the Toronto Structured Interview for Alexithymia (TSIA, Bagby, Taylor, Parker, & Dickens, 2006) has been developed to provide a research alternative or addition to the use of self-report rating scales. Despite the variety of available alexithymia measurement instruments, the TAS-26, and particularly the TAS-20, are the most widely and frequently used alexithymia measures (Taylor & Bagby, 2013), with their availability generating a proliferation of research.

Alexithymia Definition

The defining characteristics of alexithymia were formulated by Nemiah et al. (1976), which provided a basis from which investigation could take place. Alexithymia is currently viewed as a multifaceted construct, and is defined as “(i) difficulty identifying feelings and distinguishing between feelings and physical sensations of emotional arousal; (ii) difficulty describing feelings to other people; (iii) constricted imaginal processes, as evidenced by a paucity of fantasies; and (iv) a stimulus-bound, externally oriented cognitive style” (Bagby & Taylor, 1997a, p. 29).

It is important to note that alexithymia is not considered a free-standing diagnostic condition that should be listed in any psychiatric diagnostic manual of mental disorders (Swiller, 1988). Rather, the term and definition provide a way of communicating a set of “thinking, feeling, and relating processes which can exist in people with a wide variety of psychiatric diagnoses” (Swiller, 1988, p. 48), medical illnesses, psychological conditions, and in the non-clinical general population (Taylor et al., 1997b; Taylor & Bagby, 2000, 2013).

Aetiology of Alexithymia

There is both theoretical and clinical value in knowing the aetiology of alexithymia, and as Krystal (1988) stated, “the question of what to do about alexithymia depends on what we think it is and in regard to this question there is quite a bit of diversity” (p. 256). To date, no single cause of alexithymia has been established, which is congruent with the

multifaceted and dimensional nature of the construct. In this, it would seem that the aetiology is multifactorial and involves interactions between genetic and environmental influences (Taylor & Bagby, 2013).

Early distinctions were made between primary alexithymia, which is proposed to include genetic and dispositional factors, and secondary alexithymia, involving developmental experiences, and/or transitory, chronic, or traumatic events (Nemiah, 1977; Nemiah et al., 1976; Sifneos, 1983). Krystal (1988) suggested that alexithymia represents an arrest in emotional development due to childhood experiences, or regression during adolescence or adulthood resulting from psychic trauma. The early views of the influence of traumatic events are consistent with findings of large effect sizes associating conditions such as Posttraumatic Stress Disorder (PTSD) with alexithymia (Frewen, Dozois, Neufeld, & Lanius, 2008). Other researchers have proposed that socialisation processes have a role in the origins of alexithymia (Lindholm, Lehtinen, Hyypä, & Puuka, 1990).

Studies with twins have strengthened the views suggesting genetic and environmental components underlying alexithymia. Comparisons between monozygotic (identical) and dizygotic (fraternal) twins have shown a strong genetic effect of alexithymia (Heiberg & Heiberg, 1977). In a large sample of Danish twin pairs, 30 to 33 percent of the variance in TAS-20 scores was attributable to genetic factors, with environmental factors accounting for the balance (Jorgensen, Zachariae, Skytthe, & Kyvik, 2007). Similarly, in a study with Italian twins, after controlling for depression, 33 percent was accounted for by genetic factors and the balance accounted for by developmental indices (Picardi et al., 2011). However, as Fonagy, Gergely, Jurist, and Target (2002) suggested, developmental influences are not created by the environment *per se*. Rather, their creation occurs through an interaction between these factors and the way in which children experience and interpret the events that occur.

The role of developmental influences in the aetiology of alexithymia has been supported based on associations with emotional deficiencies in parents, and in the family environment. From the age of two and a half to three years, children begin to learn what to do with the emotions they experience, and the learning process establishes the foundation for the emotional and cognitive representations of their reality (Lewis, 1989). Alexithymic tendencies in parents will seriously limit their capacity to provide children with the adaptive emotional learning that is necessary for development and growth (Firestone &

Catlett, 1989), and this will influence how children learn to regulate emotion and its expression (Lewis, 1989; Taylor & Bagby, 2000).

Lumley, Mader, Gramzow, and Papineau (1996) found that the alexithymia scores of mothers correlated significantly and positively with their offspring's TAS-20 total score and each of the three factors, with no differences found between mother/son or mother/daughter combinations. Within the family environment, Lumley et al. (1996) also found that in males, a perception of emotionally dysfunctional parental over- or under-involvement correlated positively with the TAS-20 total score, *difficulty identifying feelings* and *difficulty describing feelings*. For females, a lack of family rules/guidelines for behaviour correlated positively with the TAS-20 total score and *externally-oriented thinking*. Furthermore, Mallinckrodt et al. (1998) found that parent-child role-reversal in terms of exposure to inappropriate parent-child coalitions correlated positively with the TAS factor *difficulty identifying feelings*. Somewhat similarly to Lumley et al. (1996) and their findings for males, Kooiman, Spinhoven, Trijsburg, and Rooijmans (1998) found maternal care to be inversely associated with *difficulty identifying feelings* and that paternal overprotection was positively associated with the TAS-20 total score.

Another area within the family of origin to show associations with alexithymia is that of emotional expression and communication difficulties. Findings have indicated that the development of high alexithymia is associated with an emotionally inexpressive family atmosphere (Yelsma, Hovestadt, Anderson, & Nilsson, 2000), family members' lack of expression to each other of opinions and feelings (Kench & Irwin, 2000), a decreased level of positive communication, and feeling emotionally unsafe (Berenbaum & James, 1994). In addition, a study of adults' own expressiveness within their current families found positive expressiveness to be inversely related to *difficulty describing feelings* and *externally oriented thinking*, and negative expressiveness to be positively correlated with *difficulty identifying feelings* (Yelsma, Hovestadt, Nilsson, & Paul, 1998). These associations are important given findings that, compared to individuals with low alexithymia, those with high alexithymia have significantly higher scores on negative affects, and lower scores on positive affects (Parker & Taylor, 1997b), thus leading to a possible propensity for less positive expressiveness and greater negative expressiveness.

Linehan (1993) considered the role of what she terms 'invalidating environments' relating to lack of emotional expressiveness. Within such environments, painful experiences of the child are trivialised, punished through physical, sexual, or psychological

means such as criticism, attributed to negative characteristics within the child, or reinforced erratically. The child learns that whilst moderate expression of emotion will fail to be validated, extreme emotional expression often brings a response. Through this kind of learning, “the family shapes an emotional expression style that vacillates between extreme inhibition and extreme disinhibition” (Linehan, 1993, p. 3).

Moreover, the child can fail to learn how to tolerate distress, and accurately label, modulate, or trust his or her emotional responses as being valid interpretations of experiences. When children cannot trust their own interpretations of events, they can become dependent on others to provide cues about how to feel and act. With emotional expression as a form of communication being effectively cut off, there can be a disruption in the ability to adaptively cognitively organise, redirect, or control behaviour in response to strong feelings. Continual inhibition of emotional expression may lead to a sense of numbness and feelings of emptiness, and the seeking of relief through maladaptive behaviour strategies (Linehan, 1993). Indeed, young adults who report deficiencies in family of origin emotional expressiveness appear to have difficulties with experiencing and expressing emotions (Yelsma et al., 2000).

The socialisation process is also considered to play a role in the development of alexithymia, which is related to consistent evidence that males have higher alexithymia than females (e.g., Taylor et al., 1997b). Evidence has suggested that boys and girls are socialised differently in terms of their emotional expressiveness (Brody, 1997) through different culturally determined gender roles, display rules (Malatesta & Culver, 1993), and persistent socialised stereotypes that may act as self-fulfilling prophecies (Brody, 1997).

Although developmental and socialisation influences undoubtedly play a part in alexithymia, studies have found that gender differences in sensitivity to internal or external states are observable in very young children. For example, evidence has indicated that in infants, girls are more sensitive to their own, and others', internal states than boys, and, compared to girls, boys have more difficulty regulating and controlling internal negative emotions (Zahn-Waxler, Crick, Shirlcliff, & Woods, 2006). This gender difference was supported by Watson, Futo, Fonagy, and Gergely (2011) who tested 12-month old infants and found that compared to boys, girls showed significantly greater sensitivity to internal cues, suggesting that from as early as one year of age, girls are more attuned to internal experiences than are boys. This may indicate that babies are born with a genetically

predisposed sensitivity toward focusing on internal and/or external experiences, and that different developmental and socialisation experiences influence the salience of that focus.

A further suggestion is that alexithymia reflects an underlying problem in cognitive processing and emotion regulation (Bagby & Taylor, 1997a). This is believed to influence the way in which emotion is experienced, communicated, and cognitively appraised and processed, which subsequently affects the organism's ability to self-regulate (Taylor et al., 1997b). This notion is supported by findings of negative associations between alexithymia and the recognition of verbal and nonverbal emotional stimuli (Grynberg et al., 2012; Lane, Sechrest, Reidel, Shapiro, & Kaszniak, 2000; Lane et al., 1996; Pandey & Mandal, 1997), thereby suggesting deficits in encoding and transforming emotional information (Parker, Taylor, & Bagby, 1993a, b).

Research utilising a signal-detection paradigm to assess recognition of neutral and negative emotional facial expressions under slow and rapid presentation conditions found that the alexithymia factor *difficulty describing feelings* was related to a lower ability to recognise negative emotional facial expressions, particularly when detection was under the speeded condition (Parker, Prkachin, & Prkachin, 2005). In contrast to these findings, however, when shown black and white slides of facial expressions depicting anger, sadness, disgust, surprise, happiness, and fear, no differences in emotion recognition were found between individuals with low and high alexithymia (Montebarocci, Surcinelli, Rossi, & Baldaro, 2011). Given the general and relational importance of the ability to recognise facial expressions of emotion, and the conflicting findings, it is clear that this area of research requires further clarification.

Sifneos (1996) believed that as sophisticated technology became available, the final answer on the aetiology of alexithymia would arise from neuroimaging research. In a review of the early neurobiological literature, Parker and Taylor (1997a) suggested that alexithymia “is associated, at the very least, with a variation in brain organization” (p. 113); however, it is unclear whether “this variation represents a dysfunction of the right hemisphere, an interhemispheric transfer deficit, an inhibition of the right hemisphere by a highly activated left hemisphere, or merely a preferred hemispheric mode” (Parker & Taylor, 1997a, p. 113). Of interest is that a later study did find indications of the presence of interhemispheric transfer deficits involved in alexithymia (Parker, Keightley, Smith, & Taylor, 1999).

Furthermore, along with the development of sophisticated imaging technology, the neurobiological research into alexithymia has expanded, and it has provided a deeper understanding of the processes that can occur. Utilising three-dimensional positron emission tomography (PET) scanning, Karlsson, Naatanen, and Stenman (2008) examined alexithymia and the way in which the brain processes emotion. These researchers compared a group of highly alexithymic women to a group of women with low alexithymia on their responses to viewing videos depicting neutral, amusing, and sad situations. With the amusing and sad videos, compared to the low alexithymia group, the brains of the highly alexithymic women showed greater activation in the motor and somatosensory areas, and lower activation in the anterior cingulate cortex (an area that plays a part in experiencing emotion in a differentiated and complex manner). This group also showed evidence of “distinct left-sided lateralisation” in the brain (p. 36). Of particular interest is that the highly alexithymic women reported greater anger after watching the amusing films, more disgust after the sad films, and a high rating to threat after the neutral films. Essentially, this study found that in women viewing emotion-evoking stimuli, high alexithymia was associated with “a tendency to activate brain areas relating to bodily sensations”, and “impairment in the processing of emotions” (p. 36).

Through the use of functional Magnetic Resonance Imaging (fMRI), Berthoz, Armony, Blair, and Dolan (2002) found that when shown emotion-related pictures, a highly alexithymic group had less neural activity in the medial prefrontal cortex than did a group with low alexithymia. However, there were no group differences in brain activation within areas that have a vital role in emotional responding to simple perception and association of stimuli (that is, the amygdala, hippocampal formation, and the hypothalamus). Similarly, Moriguchi et al. (2006) found highly alexithymic participants to have low neural activity in the medial prefrontal cortex when describing the actions of two triangles moving like humans in a silent visual animation.

Moriguchi et al. (2007) compared the neural responses of groups with high and low alexithymia when viewing pictures of human hands and feet in painful situations. Individuals with high alexithymia had less activation in the left dorsolateral prefrontal cortex, the dorsal pons, the cerebellum, and the left caudal anterior cingulate cortex, and greater activation in the right anterior and posterior insula and inferior frontal gyrus (areas associated with emotion processing). This group also reported lower ratings of the pain

being depicted, suggesting impairment in the ability to take the perspective of another person.

In an excellent review of the neuroimaging studies conducted on alexithymia, Moriguchi and Komaki (2013) evaluated the findings from studies that have utilised the four experimental paradigms of: 1) External emotional stimuli; 2) Imagery and fantasy; 3) Somatosensory or sensorimotor stimuli; and 4) Stimuli containing a social context (p. 2). Their conclusions were that individuals with high levels of alexithymia show reduced emotional arousal to external stimuli, disturbed voluntary cognitive functioning such as creating an image inside one's mind spontaneously (not triggered by external events), hypersensitivity (amplification) to physical level sensations and stimuli, and reduced cognitive processing in social contexts requiring mentalizing ability or theory of mind, indicating impairments in empathy (p. 7).

In other words, highly alexithymic people “exhibit either dullness to external affective triggers or hypersensitivity to internal and direct physical sensations, or both”, they “rely on a lower level of emotional awareness (i.e., physical/action level)”, and “their higher cognitive awareness is rather compromised” (Moriguchi & Komaki, 2013 p. 8). As the authors noted, these findings fit well with the theoretical conceptions of emotion proposed by Lane and Schwartz (1987) in which emotional awareness can be viewed as a developmental process and graded at different levels. I also suggest that the findings are aligned with Damasio (1999) in terms of alexithymia reflecting a disruption in the interaction between emotion and cognitive representations, leading to impairment in the feedback information system, which affects the person's imaginal ability. Together these processes prevent a conscious sense of self-awareness, which results in an inability to ‘feel their feelings’ (see Damasio, 1999, p. 282).

In addition to research into aetiological influences of alexithymia, measurement of alexithymia was greatly assisted by the establishment of cut-off scores for the TAS instruments, which has enabled comparative studies across diverse samples. This has facilitated information to be obtained regarding associations between alexithymia and sociodemographic information, and prevalence rates in both general non-clinical populations and in samples with medical and psychological conditions.

TAS Cut-off Scores

As a dimensional construct, empirically established cut-off scores have been determined for the TAS-26 and the TAS-20. For the TAS-26, scores ≥ 74 indicate high alexithymia

and scores ≤ 62 indicate low alexithymia. For the TAS-20, scores ≥ 61 indicate high alexithymia and scores ≤ 51 indicate low alexithymia (Bagby & Taylor, 1997b). To date, there are no available cut-off scores for the TAS-20 factors of DIF, DDF, and EOT.

Sociodemographic Information

In terms of sociodemographic information, alexithymia has been found to be unrelated to vocabulary skills and general intellectual ability (Parker, Taylor, & Bagby, 1989). However, findings concerning age, gender, educational level, socioeconomic status, and marital status have shown relational inconsistencies. Where some studies have shown no significant associations between alexithymia and these five variables (Bach & Bach, 1995; Joukamaa, Saarijarvi, Muuriaisniemi, & Salokangas, 1996; Luminet, Bagby, & Taylor, 2001; Parker et al., 1989), others have shown positive associations between alexithymia and age (Honkalampi, Hintikka, Tanskanen, Lehtonen, & Viinamaki, 2000; Joukamaa, Sohlman, & Lehtinen, 1995; Lane, Sechrest, & Riedel, 1998; Lane et al., 1996; Salminen, Saarijarvi, Aarela, Toikka, & Kauhanen, 1999).

With respect to alexithymia and gender, males have been found to score higher than females on the TAS-20 scale (Franz et al., 2008; Fukunishi, 1994; Lane et al., 1998; Parker, Bagby, Taylor, Endler, & Schmitz, 1993; Parker et al., 1993b; Parker et al., 2001; Salminen et al., 1994; Salminen, Saarijarvi, Aarela, Toikka, & Kauhanen, 1999; Taylor, Parker, Bagby, & Bourke, 1996), on the *difficulty describing feelings* factor (Parker et al., 2001), and the *externally oriented factor* (Parker et al., 2001; Salminen et al., 1999; Taylor et al., 1996). Conversely, females have been found to score higher than males on the total TAS scales (Mason, Tyson, Jones, & Potts, 2005; Wise, Mann, Mitchell, Hryvniak, & Hill, 1990), and the *difficulty describing feelings* factor (Pandey, Mandal, Taylor, & Parker, 1996).

Furthermore, education level has been found to be negatively associated with alexithymia (Franz, et al., 2008; Joukamaa et al., 1995; Lane et al., 1998; Salminen et al., 1999; Taylor, Parker, Bagby, & Acklin, 1992), as has socioeconomic status (Franz et al., 2008; Joukamaa et al., 1995; Lane et al., 1998; Lane et al., 1996; Salminen et al., 1999; Taylor et al., 1992). Being in a white collar profession has been found to be associated with less *difficulty identifying feelings* and *difficulty describing feelings* (Kooiman, et al., 1998).

In research that has examined alexithymia and marital status, there has been disparity in the findings. Some studies have shown no significant associations between high and low alexithymia and whether people are single, married, divorced, or widowed (Joukamaa, Saarijarvi, et al., 1996; Kooiman et al., 1998), or whether they are married or living in a de facto relationship (Honkalampi et al., 2000). However, other studies have found a higher degree of total alexithymia in single men (Franz et al., 2008; Kokkonen et al., 2001). Conversely, both Joukamaa et al. (1995) and Joukamaa, Karlsson, Sohlman, and Lehtinen (1996) found high alexithymia to be least common in unmarried persons.

Also, Joukamaa et al. (1995) found alexithymia to be highest in those who were divorced, and this was supported by Franz et al. (2008) who reported that compared to married persons or those who cohabited with a partner, divorced individuals without a partner showed significantly higher total alexithymia. Joukamaa, Karlsson, et al. (1996) found high alexithymia to be most common in those who were widowed, with the divorced group ranking second to the widowed group. In addition, Salminen et al. (1999) found married women to be significantly less alexithymic than unmarried women, and Franz et al. (2008) found married women to have low total TAS-20 scores. Thus, in terms of sociodemographic information, the relationships between alexithymia and age, gender, educational level, socioeconomic status, and marital status remain varied.

Alexithymia Prevalence Rates

Studies that have included reporting of the prevalence of high alexithymia have shown rates in general population non-clinical adult samples ranging between 10% (Franz, et al., 2008; Honkalampi, et al., 2001; Mason et al., 2005) and 34% (Joukamaa, Saarijarvi, et al., 1996). In medical samples, rates have been between 25% (Barbosa, Freitas, & Barbosa, 2011; Fortune, Richards, Griffiths, & Main, 2004; Porcelli, Tulipani, Di Micco, Spedicato, & Maiello, 2011; Porcelli, Zaka, Leoci, Centonze, & Taylor, 1995) and 66% (Porcelli, Taylor, Bagby, & De Carne, 1999). In adult psychological/psychiatric samples, reported rates have been between 12.5% (Celikel et al., 2010; Nowakowski, McFarlane, & Cassin, 2013; Parker, Taylor, Bagby, & Acklin, 1993) and 68.8% (Bourke, Taylor, Parker, & Bagby, 1992).

In terms of prevalence rates of high alexithymia for each gender, Franz et al. (2008) reported rates of 11.1% for men and 8.9% for women, which were comparable to findings by Honkalampi et al. (2000) of 12.8% for men and 8.2% for women. Kokkonen et al.

(2001) reported rates of 9.4% for men and 5.2% for women, Montebanocci, Codispoti, Baldaro, & Rossi (2004) found rates of 9.5% for men and 7.2% for women, and Salminen et al. (1999) found rates of 17% for men and 10% for women. In contrast, Mason et al. (2005) found prevalence to be 7.7% for men and 20% for women. Studies examining married couples and alexithymia have reported prevalence rates of 21% for husbands and 18% for wives (Eizaguirre, 2002) and 7.5% for husbands and 6.2% for wives (Frye-Cox & Hesse, 2013). In addition to these fundamental aspects of alexithymia, research has established a number of features that are associated with the construct.

Associated Features of the Alexithymia Construct

The characteristics of alexithymia identify a pervasive way of functioning (Lesser, 1985), and evidence has indicated that “the structure of the construct is equivalent across many cultures, thereby supporting the view that alexithymia is a universal trait” (Taylor & Bagby, 2013, p. 107). As such, alexithymia does not define a particular ‘type’ of person (Taylor & Bagby, 2013). An important feature of alexithymia is that it is not an *all or nothing* trait as it can be distinguished by low, moderate, and high dimensions (Bagby & Taylor, 1997a). The dimensionality of alexithymia has gained strong support through the use of taxometric methodologies with large samples of English speaking community members and students, a smaller psychiatric outpatient sample (Parker, Keefer, Taylor, & Bagby, 2008), and a large community Finnish sample (Mattila et al., 2010). The dimensional nature allows for variations in the degree of the affect deficits, and therefore, the presenting characteristics. Of course, the degree of alexithymia can vary from one person to another; however, at times, it may also vary within the same person in response to stressful situations such as multiple losses or traumatic experiences (Krystal, 1982-83). This suggests that alexithymia may be a personality trait that can vary according to a particular state.

The view of Krystal (1982-83) is associated with an earlier debate within the literature regarding whether alexithymia should be construed as a stable personality *trait* that is independent of a specific cause, or a stress-related *state* that resolves as the stressful situation abates (Bagby & Taylor, 1997a). Early authors were unclear about their position on the trait-state issue (i.e., Nemiah & Sifneos, 1970); however, research has since found that alexithymia remains stable despite changes on psychological and/or medical indices (Martinez-Sanchez, Ato-Garcia, Adam, Medina, & Espana, 1998; Porcelli, Leoci, Guerra,

Taylor, & Bagby, 1996; Salminen et al., 1994; Taylor, Bagby, & Luminet, 2000), particularly when the absolute and relative stability of alexithymia are taken into account (Luminet et al., 2001). Furthermore, although some researchers have proposed the existence of distinct subtypes of alexithymia (Bermond et al., 2007), a large-scale confirmatory investigation failed to provide empirical support for this distinction (Bagby et al., 2009).

In considering the various ways in which alexithymia may present in individuals, a range of characteristics has been identified. Highly alexithymic people have an empty emotional life and a limited sense of their own needs (Kraemer & Loader, 1995). They generally respond unemotionally and calmly to emotional experiences and psychologically serious events (McDougall, 1985), and they often use a wall of language to put a screen between themselves and others rather than to communicate their ideas and emotional experiences (McDougall, 1985).

Although those who are highly alexithymic are unable to identify and communicate specific feelings, they know when they do not feel good (Ogrodniczuk, 2007); however, with their thinking focused on facts, details, and events that are external to the self, there is minimal inner reflection. Consequently, there is an inability to link emotional experiences to any associated thoughts and feeling sensations, or to utilise this process as a source of information to guide decisions and modulate mood states (Taylor & Bagby, 2000). In accordance with the proposal by Damasio (1999), this seems to suggest that emotional awareness in high alexithymia is fixed at the level of the broad background emotions (for example, a calm versus tense state), with the lack of cognitive processing prohibiting higher order specificity of feelings, inner reflection, and affect regulation.

It is a misconception that highly alexithymic individuals are completely unable to express feeling states. Rather, it is more accurate to regard these people as having emotions that are “poorly differentiated and not well represented mentally” (Taylor & Bagby, 2000, pp. 42-43). Those with high levels of alexithymia may communicate emotive words such as ‘sad’, ‘angry’, or ‘frightened’, exhibit emotional outbursts of rage, crying, and/or slamming of doors (Krystal, 1979; Nemiah et al., 1976; Thompson, 1988), and experience dysphoria and emotional turmoil (Taylor et al., 1992). However, the sudden outbursts can stop as abruptly as they start, and there will be an inability to elaborate and reflect on the associated feelings, or identify the source of the feeling state (Taylor & Bagby, 2000).

Paradoxically, although highly alexithymic individuals lack the cognitive, expressive, and reflective skills associated with emotion states (Krystal, 1988), as with people who are colour-blind, they may have learned from others that they have the deficits (Lane et al., 1996). Despite differing from other people in terms of emotion skills and emotional reactions to events, the alexithymia deficits themselves do not appear to prevent the ability to complete self-report instruments such as the TAS-26 or TAS-20. The value of these instruments is that the items tap into indicators of emotional difficulties rather than requiring awareness of emotions *per se*. The validity of the measures is supported by findings of significant correlations between the TAS-20 and its three factor scales of *difficulty identifying feelings*, *difficulty describing feelings*, and *externally oriented thinking* and non-self-report measures of alexithymia (Porcelli & Mihura, 2010), and an observer-rated measure (Bagby, Taylor et al., 1994).

In addition to the features detailed above, alexithymia has been investigated in association with other developmental and personality constructs such as autism spectrum disorder, defense mechanisms, emotional inhibition, psychological mindedness, and emotional intelligence. A brief overview of this research is presented below.

Autism Spectrum Disorder

Within the alexithymia and Autism Spectrum Disorder (ASD) literature, similarities between the features of alexithymia and those comprising ASD have been noted and empirically investigated. Prevalence findings indicate that between 40 and 65% of adults with autism meet the criteria for alexithymia (Berthoz & Hill, 2005; Hill, Berthoz, & Frith, 2004). Moreover, studies have found that, compared to a control group, and a group of relatives, adults with high-functioning forms of ASD had significantly higher alexithymia (Hill et al., 2004), and that the TAS-20, DIF, DDF, and EOT scores for those with ASD demonstrated temporal stability (Berthoz & Hill, 2005). Furthermore, Bird, Press, and Richardson (2011) found that the ASD aspect of reduced eye fixation (when looking at social scenes) was predicted by the severity of alexithymia and not by the autism symptom severity, suggesting that there is a sub-group of adults with ASD who have the emotional deficits of alexithymia in addition to the social deficits of ASD. These findings have provided some evidence that, although alexithymia and ASD are significantly related, they are separate constructs.

A review by Bird and Cook (2013) lends some strength to the findings noted above. These authors referred to alexithymia as a “subclinical condition”, and they proposed a theory called “the alexithymia hypothesis” (p. 1). This theory “suggests that, where observed, the ‘emotional symptoms of autism’ are in fact due to the greater proportion of individuals with severe alexithymia in the autistic population” (p. 2). In other words, the empathy and emotion recognition deficits often seen in those who have autism are due to severe alexithymia rather than autism *per se* (pp. 5-6). In support of their hypothesis, Bird and Cook cited a series of studies comprising individuals with autism, and individuals without autism, who had varying degrees of alexithymia. The cited research examined autism and alexithymia in association with aspects of facial emotion recognition, recognition of vocal or musical affect, and included fMRI studies of empathy or emotional introspection. The conclusion was that “in every case ... alexithymia, but not autism, has been associated with emotional deficits” (p. 6). The emerging findings in this area are important because, as Bird and Cook indicated, if ongoing research continues to show consistent support for the alexithymia hypothesis, the findings will have significant implications for the diagnostic markers of autism, research into autism, and the clinical practise with individuals who have the disorder.

Alexithymia and Defense Mechanisms

Throughout the alexithymia literature, there has been conjecture regarding whether the deficits should be viewed as ego defenses against anxiety and neurotic conflicts. For instance, examination of associations between alexithymia and the repressive coping style have shown inconsistent findings, with some investigators arguing that the two constructs are similar and differ only in magnitude (Lane et al., 2000) and others finding that they are separate and distinct constructs (Myers, 1995; Newton & Contrada, 1994). Furthermore, although the characteristics of alexithymia were once thought to be influenced by individuals’ needs to exhibit socially conforming or acceptable behaviour (Horney, 1952; Ruesch, 1948), studies have indicated that alexithymia is not influenced by social desirability (Fukunishi, 1994; King, Emmons, & Woodley, 1992), self-deception (King et al., 1992; Linden, Lenz, & Stossel, 1996), or impression management (Linden et al., 1996).

Over time, empirical studies with clinical and non-clinical populations have found consistent evidence that alexithymia is correlated positively with the use of immature defenses, and negatively with the use of adaptive or mature defenses (Helmes et al., 2008;

Joyce, Fujiwara, Cristall, Ruddy, & Ogrodniczuk, 2013; Kooiman et al., 1998; Parker et al., 1998; Wise, Mann, & Epstein, 1991). However, despite the more consistent findings of associations between alexithymia and the use of immature defenses, Parker and Taylor (1997b) proposed that “this does not mean that alexithymia itself should be conceptualized merely as a primitive defense” ... “rather, one must view alexithymia as a more complex construct and ask what are the developmental and psychic structural elements that prevent an alexithymic individual from employing more neurotic or mature defenses to manage affects” (p. 91). As Kennedy-Moore and Watson (1999) stated, “the limited emotional expression of alexithymics is characterized by struggle rather than denial” (p. 81).

Alexithymia and Emotional Inhibition

Another construct that has been viewed as conceptually similar to alexithymia is that of emotional inhibition, and indeed, the two constructs do have similarities. Based on the General Adaptation Syndrome established by Hans Selye (Selye, 1976), Pennebaker and Beall (1986) developed the theory of behavioral inhibition and psychosomatic disease. Their theory suggests that inhibiting the expression of distressing emotions is an active process that involves *not* thinking about the associated emotion, and requires an increase in both psychological and physiological effort and energy (Pennebaker & Beall, 1986; Pennebaker, Hughes, & O’Heeron, 1987). Over time, the continual physiological effort required with inhibition places cumulative stress and wear and tear on the body, and it is this process that adversely affects physiological functioning and potentially leads to the development of psychosomatic disorders (Pennebaker & Beall, 1986; Selye, 1976).

Investigation of alexithymia and inhibition of emotional expression has found low to moderate positive correlations between the two constructs, indicating that they are related yet separate (Davies, Stankov, & Roberts, 1998; King et al., 1992). Therefore, although inhibition and alexithymia may seem similar, their conceptual nature differs in that inhibition may be viewed as an *unwillingness* to express emotion (Horowitz, Markman, Stinson, Fridhandler, & Ghannam, 1990), whereas alexithymia can be viewed as an *inability* or *difficulty* that is associated with [emphasis added] expressing emotion (Taylor, 1997a).

Alexithymia, Psychological Mindedness, and Emotional Intelligence

Two other personality constructs considered to overlap with alexithymia are those of psychological mindedness (PM) and emotional intelligence (EI). The concept of

psychological mindedness is not new, and it has value in identifying those who are likely to gain benefit from insight-oriented therapy (Parker, 2000, p. 492). According to Bar-On (2001), the concept of psychological mindedness arose from observations about alexithymia, and alexithymia “can be considered the essence of EI” (p. 83). Although a number of definitions have been proposed (see Parker, 2000, pp. 492-493), basically, it can be conceptualised as “a person’s ability to see relationships among thoughts, feelings, and actions, with the goal of learning the meanings and causes of his experience and behavior” (Appelbaum, 1973, p. 36). As may be expected, research has found the TAS-20 and its three factors to be strongly and negatively related to psychological mindedness (Bagby, Taylor, et al., 1994).

Alexithymia is also viewed as conceptually similar to emotional intelligence (Ciarrochi, Chan, & Caputi, 2000a; Ciarrochi, Chan, Caputi, & Roberts, 2001; Taylor, Parker, & Bagby, 1999), with Taylor et al., (2000) suggesting that “the TAS-20 could be used ... as a brief screening device for identifying individuals with low emotional intelligence” (p. 305). The concept of EI is important when considering alexithymia as it could be argued that high alexithymia and high EI are at opposite ends of the cognitive-affective experience. Definitions of EI vary according to different authors (Ciarrochi et al., 2000a; Taylor & Bagby, 2000), and here it is defined as “the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth” (Mayer & Salovey, 1997, p. 10).

A comprehensive EI model (Bar-On, Brown, Kirkaldy, & Thome, 2000), and measurement instrument, the Bar-On Emotional Quotient Inventory (*EQ-i*, Bar-On, 1997), includes “*intrapersonal capacity*”, “*interpersonal skills*”, “*adaptability*”, “*stress management*”, and “*motivational and general mood factors*” [emphasis in original] (p. 1108). The interrelated abilities of the Bar-On et al. (2000) EI model encompass both intrapersonal intelligence, which “involves the examination and knowledge of one’s own feelings”, and interpersonal intelligence, which involves “the ability to read the moods, intentions, and desires of others and potentially to act on this knowledge”, which is generally referred to as empathy (Taylor & Bagby, 2000, p. 44).

Empirical evidence utilising the *EQ-i* (Bar-On, 1997) supports the model in relation to alexithymia, with findings that alexithymia and EI are strongly overlapping constructs that

are independent of each other (Parker et al., 2001). Furthermore, strong inverse relationships have been found between EI total scores, EI dimensions relating to intrapersonal and interpersonal capacities, adaptability, and stress management skills and the total TAS-20 (Dawda & Hart, 2000; Parker et al., 2001) and its three factors (Parker et al., 2001). A more recent study by Khodabakhsh and Fatehi (2012) also found that the TAS-20 was negatively correlated with a measure of emotional intelligence.

The findings of negative associations between alexithymia, PM, and the EI dimensions, have provided further evidence that those with high alexithymia have difficulties with intrapersonal processes, and they have demonstrated that alexithymia is negatively associated with interpersonal capabilities.

Although the greater majority of the studies on alexithymia have been directed toward examining intrapersonal variables, there is a longstanding and recurring theme within the clinical literature indicating that those who have a high degree of alexithymia also have difficulty forming and maintaining close emotionally connected relationships with others (e.g., Apfel-Savitz, Silverman, & Bennett, 1977; Bagby & Taylor, 1997a; Horney, 1952; Kelman, 1952; Krystal, 1979, 1988; Lolas & von Rad, 1989; McDougall, 1985; Swiller, 1988; Taylor, 2001; Weinryb, 1995).

When considering the bases of interpersonal difficulties associated with alexithymia, it has been established that early childhood experiences with caregivers are influencing factors in the development of emotion-related and cognitive abilities, which can transform into difficulties with affect regulation (Fonagy & Target, 1997). Given the developmental and family of origin factors noted above in the aetiology of alexithymia, it appears that individuals' earliest relationships, and the kinds of attachment styles adopted with primary caregivers, may set the stage for the bonds formed later in life (Kraemer & Loader, 1995).

Alexithymia and Attachment

According to Bowlby (1977), "attachment theory is a way of conceptualizing the propensity of human beings to make strong affectional bonds to particular others and of explaining the many forms of emotional distress and personality disturbance, including anxiety, anger, depression and emotional detachment, to which unwilling separation and loss give rise" (p. 201). Given the associations found between alexithymia and the lack of parental emotional attunement (Lumley et al., 1996), and family environmental factors

(Berenbaum & James, 1994), it seems plausible that alexithymia would be related to attachment.

Support has been found for the hypothesis of associations between alexithymia and attachment through consistent empirical evidence that in adults, alexithymia and its factors are negatively correlated with measures of secure attachment (Scheidt et al., 1999; Troisi, D'Argenio, Peracchio, & Petti, 2001). Additionally, findings have shown positive correlations with scales measuring insecure attachment strategies that have been termed as dismissing and deactivating (Scheidt et al., 1999), fearful (Posner, 2000), dismissive-avoidant (Beckendam, 1997), compulsive care-seeking (a sub-type of ambivalent attachment), and with compulsive self-reliance (a sub-type of avoidant attachment) (Schaffer, 1993 Dissertation, cited in Bagby & Taylor, 1997a).

Additionally, Mallinckrodt et al. (1998) tested whether attachment style is associated with the way in which adults with high alexithymia relate to other adults, namely, their therapists. Mallinckrodt et al. found that the TAS-20 total score and the factor *difficulty identifying feelings* were negatively correlated with secure attachment to the therapist, *difficulty identifying feelings* was also positively correlated with avoidant-fearful and preoccupied attachment to the therapist, and the factor *difficulty describing feelings* was positively correlated with preoccupied attachment to the therapist. Furthermore, attachment to the therapist has been found to be associated with the quality of therapy sessions, with secure attachment producing greater psychotherapeutic depth and smoothness within the session (Mallinckrodt, Porter, & Kivlighan, 2005).

Clinicians treating highly alexithymic individuals are in a unique position to observe and experience the communicative styles of these clients, with the client-therapist relationship able to provide an indicator of the ways in which alexithymic individuals relate to others in their lives. The findings by Mallinckrodt et al. (1998, 2005) suggest that therapists may have difficulty establishing positive therapeutic alliances with clients who have high alexithymia, and that it may be therapeutically prudent to explore factors surrounding the style of functioning within the alexithymic client's family of origin. The findings also suggest that the legacy of early emotional misattunement by parents, and the emotional milieu within the family environment, can extend to relationships that are formed throughout adulthood.

The relational difficulties experienced by highly alexithymic individuals seem to be strongly influenced by their emotional deficits, and consequential to these deficits, the

interpersonal characteristics that define their styles of relating to others (e.g., Swiller, 1988; Taylor, 2011). The interpersonal characteristics of those with a high degree of alexithymia have received empirical attention, with evidence presenting a broad picture of the features that may be present in those with the emotional deficiencies.

Interpersonal Characteristics of Alexithymia

Studies have found associations between individuals' high levels of alexithymia and having discomfort with closeness with others, a lack of confidence, a need for approval, viewing close relationships as secondary aspects in life (Montebarocci et al., 2004; Triosi et al., 2001), having a low frequency of experiencing positive affect, a low level of social support (Fukunishi & Rahe, 1995; Jacob & Hautekeete, 1999), and gaining minimal pleasure in social situations yet having normal responses to physical stimulation and sensations (Prince & Berenbaum, 1993). Whilst there may not be a denial of the importance of self-disclosure, there can be difficulty disclosing health- and self-related details (Loiselle & Dawson, 1988). There may also be a discrepancy between nonverbal behaviours and verbal reports related to anger, a tendency to be interpersonally avoidant after anger provocation (Berenbaum & Irvin, 1996), symbolic portrayal of anger as hurting others, suspicion and criticism (Cecero & Holmstrom, 1997), and difficulty trusting others (Cecero & Holmstrom, 1997; Taylor et al., 1996). In also having a low sense of personal responsibility, there may be high blaming of others, as well as a reluctance to give personal or emotional statements, an inability to resolve difficult situations, feeling ineffective, worrisome, pessimistic, fearful, and shy (Grabe et al., 2001), and having poor stress-management skills (Fukunishi & Rahe, 1995). For males particularly, there can be restrictive emotionality and emotional expressiveness, limited affectionate behaviour, and a fear of intimacy that is related to having a more traditional masculine gender role orientation (Fischer & Good, 1997). In addition, a recent study found *difficulty identifying feelings* to be associated with the use of an escape-avoidance coping strategy, that *difficulty describing feelings* is associated with less seeking of social support from others, and that *externally oriented thinking* is correlated with less confrontation with others (Tominaga, Choi, Nagoshi, Wada, & Fukui, 2014).

Although this summary presents a somewhat pessimistic image of the highly alexithymic person's approach to interpersonal relationships, it is relevant to recall the dimensional and multifactorial nature of alexithymia. In this, individuals will vary in the

characteristics they have, how these are exhibited, and the degree to which the characteristics are present.

Alexithymia within Interpersonal Relationships

As empirical interest in the interpersonal aspects of alexithymia began to emerge, a number of authors investigated the relational experiences involved with alexithymic spouses; however, the focus of the earlier studies was on individuals rather than couples. Firstly, Weinryb, Gustavsson, Asberg, and Rossel (1992) verified that alexithymia is associated with problems in interpersonal relationships. However, the associations were based on measurement of alexithymia using the Karolinska Psychodynamic Profile, which is a psychodynamic assessment instrument rather than an alexithymia measure.

Subsequently, other authors found that those with high levels of alexithymia had fewer close relationships in terms of friends, dates, and a steady partner (Lumley, Ovies, Stettner, Wehmer, & Lakey, 1996). Vingerhoets, Van Heck, Grim, and Bermond (1995) found that there was a tendency for females with high alexithymia to have had fewer experiences with falling in love; however, the association was unclear, and disappeared when controlled for the time between the females' first time of being in love and current age. The lack of clear findings by Vingerhoets et al. (1995) may be partially explained by a potential selection bias in their sample of "women ($n = 152$) who had returned a questionnaire on love experiences in a women's magazine, and who had indicated that they were willing to take part in an extended study on this topic" (p. 38).

Hesse and Floyd (2008) advanced the area by examining associations between alexithymia and the experience of affectionate communication (at the trait level), stress, depression, happiness, and affectionate communication in individuals' closest relationships. These authors proposed that alexithymia is an influence in individuals' relational, physical, and mental well-being because of the limits it creates in the ability to understand and express interpersonal affection, which thereby lessens the benefits that affectionate communication may have in relationships.

The findings by Hesse and Floyd (2008) indicated that compared to individuals who reported lower levels of alexithymia, those with higher alexithymia experienced significantly less affection, closeness within their closest relationship, happiness, nonverbal immediacy, affectionate communication, as well as significantly more depression and stress. Mediation analyses indicated that affectionate experience partially mediated the

relationships between alexithymia and happiness, nonverbal immediacy, and depression. Affectionate experience fully mediated the relationships between alexithymia and affectionate communication and relational closeness; however, the association between alexithymia and stress was not mediated by affectionate experience. The authors suggested that the lack of mediation between alexithymia and stress may be a reflection of highly alexithymic individuals finding the expression and receiving of affection stress inducing.

In a more recent study, Hesse and Floyd (2011) found that affection partially mediated the association between alexithymia and anxious/avoidant attachment, and fully mediated the relationship between alexithymia and the need for intimacy and the number of close relationships. Findings also indicated that the association between alexithymia and the need for intimacy was stronger for females than males.

Vanheule and colleagues have also investigated interpersonal problems associated with alexithymia. Findings indicated that high alexithymia to be associated with cold/distant and non-assertive social functioning (Vanheule, Desmet, Meganck, & Bogaerts, 2007a), vindictiveness, self-centredness, and with lower self-sacrificing and accommodation to others' needs (Vanheule, Vandenberghe, Verhaeghe, & Desmet, 2010). Also, in their study of alexithymia and relationships, Mallinckrodt et al. (1998) found that, although alexithymia was not associated with marital conflict, both marital conflict and alexithymia were positively associated with fear of separation.

A previous study by Yelsma (1996) examined marital conflict in terms of whether alexithymia is associated with abuse in couples' relationships. Participants were 64 males and 15 females who had perpetrated physical and verbal abuse against their partners, 4 male and 53 female victims of abuse (who were not related to the perpetrators), and 35 functional (no abuse) husband and wife couples. Yelsma (1996) found that, compared to functional husbands and wives, both the perpetrators *and* the victims of abuse showed higher total alexithymia scores as well as significant deficits in the ability to experience and express subjective emotions, lack of awareness of emotional information to assist with relationship communication, lower levels of positive feelings about their lives, and lower levels of expression of positive emotions (p. 157). Unexpectedly, the functional wives expressed more negative emotions than did the victimised females; however, according to Yelsma (1996), a "deficit of positive affect versus the presence of negative affect was a significant indicator of physical abuse reported within intimate relationships" (p. 141).

These results supported previous findings that within functional relationships, the adaptive expression of negative emotions is an indicator of less verbal abusiveness reported by partners (Yelsma, 1995), that active management of conflict is significantly correlated with marital adjustment, and that having a high range of positive feelings is important to that adjustment (Yelsma, 1984a).

Given the importance of emotion in relationships (Barrett-Lennard, 2003; Gottman, 1999; Lewis, 1998), and emotional compatibility between couple partners (Gottman, 1999; Gottman & DeClaire, 2001), it seems plausible that alexithymia would be a contributing factor to the quality of couples' relationships.

Clinical reports have suggested that, when entering into a close relationship with someone who is highly alexithymic, those who are unfamiliar with the construct's characteristics can initially be misled by observations of a highly functioning and successful individual who seems super-adjusted (Krystal, 1988). This is consistent with McDougall's (1985) description of alexithymics as "normopaths" who display a form of "pseudonormality" (p. 156). When partnered with such individuals, relationships often start well; however, interpersonal difficulties may arise when the couple's interactions cannot move past superficial functioning and communication to a deeper and more emotionally meaningful connection, which may be particularly difficult for a partner who is more emotionally aware and expressive (Swiller, 1988; Taylor, 2001).

Interpersonal communication has been found to be a consistent major contributing factor to marital discord (Burleson & Denton, 1997; Halford, 2000; Halford, Hahlweg, & Dunne, 1990; Noller & Venardos, 1986; Parker & Scannell, 1998; Snyder & Wills, 1989), and communication problems have long been cited as a cause of relationship discontent for both men and women (Wolcott & Hughes, 1999). The communication styles of highly alexithymic individuals can be experienced by others as extremely frustrating and boring, and this is largely due to their unrelenting focus on the minutiae of events that are external to the self (Swiller, 1988; Taylor, 1977, 1984b). As an interesting aside, evidence has indicated that highly alexithymic individuals may also be bored with themselves. Eastwood, Cavaliere, Fahlman, and Eastwood (2007) found that those who reported higher *externally oriented thinking* on the TAS-20 also reported having greater boredom; however, the more important aspect was an impoverished emotional awareness. As the authors stated, "although the bored individual focuses on the external world and how it

fails to satisfy them, the underlying problem is actually a lack of emotional awareness” (p. 1042).

When highly alexithymic individuals do form intimate relationships, if maintained, they can have a “concrete, addictive quality in that the subject must cling to the loved one at all costs, as if that were the only means of care and security” (Kraemer & Loader, 1995, p. 939). These couple dynamics can have a devitalising effect on interpersonal communication and relationships (McDougall, 1985), which couples may feel powerless to change. Conversely, Swiller (1988) indicated that in couples where one partner is high in alexithymia and the other partner is low in alexithymia, the relationship can have positive elements such as mutual respect, affection, and satisfying sexual relations. However, generally, the partner who is more emotionally competent gradually becomes dissatisfied and angry, and commonly complains about “the lack of ‘communication’ or lack of ‘closeness’ in the relationship” (Swiller, 1988, p. 51). Unfortunately, having a lack of empathy and self-awareness leaves highly alexithymic partners bewildered, unable to understand their spouse’s frustration and dissatisfaction, and uncertain about how to change the situation. In this, there can be a sense of being the problem in the relationship, which may add to their distress and lower their self-esteem (Swiller, 1988).

It may be that such couples become caught up in a negative cycle of relating, which over time erodes the positive aspects of the relationship for one or both partners. The question of how long it may take for such erosion has not been specifically examined; however, Humphreys, Wood, and Parker (2009) found that, in a group of undergraduate students who were in intimate relationships ranging in time from three to 68 months, alexithymia was negatively associated with sexual satisfaction.

Given that “intimate relationships are the principal context within which we live out our emotional lives” (Mirgain & Cordova, 2007, p. 1002), the relational characteristics of highly alexithymic individuals present a risk to the well-being of the partners who are involved in those unions. From a clinical standpoint, it therefore seems important to identify and investigate variables that are associated with alexithymia and are fundamental to the quality of couples’ relationships. As noted earlier, to be of practical assistance to couples who have discrepant alexithymia levels, the suitability of the variables would be reliant upon having behavioural components that could be successfully learned and utilised by both a highly alexithymic partner and a more emotionally competent partner. In this,

there may be opportunities for both partners to have some of their relational needs met, and for negative interaction patterns to be interrupted.

Two variables that fulfil these criteria are those of empathy and emotional connection, both of which are viewed as being foundational to the relational experience. Empathy is recognised as an integral part of a couple's communication system, and significantly associated with partners' relationship satisfaction (Barnoski, 1988; Barrett-Lennard, 1997, 2003; Boettcher, 1977; Carter, 1981; Cramer, 2001, 2003; Cramer & Jowett, 2010; Franzoi, Davis, & Young, 1985; Gottman, 1999; Gottman & DeClaire, 2001; Rowan, Compton, & Rust, 1995). Additionally, empathy is fundamental to the emotional connection between partners (Barrett-Lennard, 1997; 2003; Jordan, 1997; Lewis, 1998), and emotional connection (and the behaviours that create it), is a vital determinant of the success and quality of couples' relationships, and is strongly associated with divorce (Gottman, 1999; Gottman & DeClaire, 2001).

Empathy

According to Hornblow (1980), the concept of empathy is longstanding, and “although the term ‘empathy’ itself did not appear until after the turn of the century” (p. 22), the investigation of empathic behaviours can be “traced back to 1872 when Charles Darwin asked subjects to identify emotions from photographs” (p. 22). The term ‘Einfühlung’ (feeling oneself into) was introduced by Lipps in 1897, and the English translation ‘empathy’ was applied by Titchener in 1909 (p. 19). Within the psychological field, throughout the first five decades of the 1900s, a substantial amount of research attempted to discover the characteristics of those who were accurate judges of others' emotional responses. This empirical interest in empathy resulted in the development of a variety of different conceptualisations, definitions, and associated measurement instruments. However, the wide variations in theoretical bases and ensuing measures created confusion around the meaning of empathy and the characteristics involved in empathic ability, which was reflected by consistent findings of low correlations between the measures.

Research into empathic accuracy was particularly prevalent until 1955 when Cronbach (of Cronbach's alpha fame) demonstrated that the interpretations of the research findings were not justified because “the results could have been produced by mathematical artefact and a constant mental set, rather than by empathic ability per se” (Hornblow, 1980, p. 22). Although Cronbach helpfully suggested alternative methods for dealing with the issues he

had raised, the research into empathic accuracy declined sharply between 1955 and the early 1960s. Following this empirical lull, the focus of empathy changed somewhat after researchers developed measures that enabled ratings of perceived empathy (i.e., Barrett-Lennard, 1962; Traux & Carkhuff, 1967); however, during the 1970s, the Traux scale and its derivatives incited much debate and criticism regarding their lack of validity and unreliability (Hornblow, 1980).

Despite the difficulties with the early empathy research, some important features of empathy were discovered. Indications were that “the process of knowing others can be influenced by the context, by cognitive and affective characteristics of the perceiver, by the relationship between the perceiver and the perceived, and by developmental and cultural factors” (Hornblow, 1980, pp. 23-24). Furthermore, empathic abilities can: (a) vary between and within individuals; (b) arise in the course of development and are considerably influenced by situational factors; (c) can (at least with certain empathic skills) be learned over a relatively short training period; (d) tend to be negatively related to personality disturbance; and (e) are important in interpersonal communication and are probably necessary though not sufficient ingredients in effective psychotherapy (Hornblow, 1980, pp. 25-26).

Additionally, during the 1990s, there was a resurgence of research into empathic accuracy when the dyadic interaction paradigm was developed (Ickes, 1993). Investigations found that empathic accuracy can improve relationship satisfaction, and that such accuracy can be increased when partners feel secure with each other, there is intimacy and closeness in the relationship, when they have a shared cognitive focus in day-to-day interactions, when partners act a little like strangers with each other in terms of closely attending to each other’s behaviour, and also when partners’ thoughts are viewed as potentially threatening, as this motivates closer attention to behaviour (Flury & Ickes, 2001).

Conversely, empathic accuracy has been found to decline over time, and this may be because the person providing empathy needs the capacity to be empathically attuned to others, motivated to attend to others in a focused and interested way, and to have a minimal control orientation (Flury & Ickes, 2001; Hancock & Ickes, 1996). Furthermore, empathic accuracy can be inhibited by high levels of acute or chronic stress (Flury & Ickes, 2001), and individuals may be motivated toward inaccuracy in their inferences, especially if there is a potential for negative consequences resulting from being too accurate (Ickes, 1993). In

this, Flury and Ickes (2001) cautioned that empathic accuracy can also be harmful to relationships when it leads to interactions and insights that are emotionally painful, distressing for either or both partners, and/or it prompts doubts about the strength and permanence of the relationship. Of interest is that Thomas, Fletcher, and Lange (1997) found that empathic accuracy was not significantly associated with marital satisfaction.

In considering those who are on the receiving end of empathy, a requirement is that they are actually 'readable'. A person's readability is increased when there is behavioural consistency and coherence, the person is willing to share taking the initiative in the relationship, is self-disclosing, reduces the level of masking or suppression of true thoughts and feelings (Flury & Ickes, 2001), and provides feedback regarding his or her actual thoughts and feelings (Marangoni, Garcia, Ickes, & Teng, 1995).

Evidence from Thomas et al. (1997) has suggested that there are no gender differences in empathic accuracy, and that accuracy is higher for couples who have been married for shorter periods. However, these researchers also found that the link between length of relationship and empathic accuracy was mediated by partners having a shared cognitive focus. Contrasting somewhat with these findings, Marangoni et al. (1995) found that accuracy increases with greater exposure of the perceiver to the target person. Although empathic accuracy has not been investigated in association with alexithymia, the aspect of empathy provided to others has received both clinical and empirical attention.

Alexithymia and Empathy

There has been longstanding clinical reporting of associations between alexithymia and a lack of empathic ability, and it makes intuitive sense that if a person is unable to understand and connect with their own emotions, they will struggle to do so with the emotions of others. These views are supported by findings of strong negative associations between alexithymia and psychological mindedness (Bagby, Taylor, et al., 1994), and alexithymia and dimensions of emotional intelligence (Dawda & Hart, 2000; Khodabakhsh & Fatehi, 2012; Parker et al., 2001). They are also strengthened when taking into account the evidence of associations between alexithymia and impaired recognition and labelling of emotional facial expressions (e.g., Grynberg et al., 2012; Jessimer & Markham, 1997; Karlsson et al., 2008; Lane et al., 2000; Lane et al., 1996; Mann, Wise, Trinidad, & Kohanski, 1994; Moriguchi & Komaki, 2013; Moriguchi et al., 2007; Parker et al., 1993b). Such impairment has been found to be particularly prevalent in the detection of anger,

sadness, and fear (Prkachin & Prkachin, 2001), and when the requirement is to rapidly recognise and label non-verbal emotion expressions (Parker et al., 2005). Individuals with high alexithymia have also reported inaccurate interpretations of non-verbal behaviours that are biased toward anger, dominance, and beliefs that the average person would react less strongly to events depicted (Berenbaum & Prince, 1994).

These impairments with alexithymia and recognition and labelling of emotion parallel the neurological findings presented earlier (Moriguchi & Komaki, 2013), and as with emotion (Damasio, 1999), empathic ability has been found to be associated with neurological functioning. For example, Decety and Moriguchi (2007) conceptualised empathy as “a multidimensional construct to account for the sense of sharing and understanding of the subjective experience of others. Thus, empathy includes aspects of emotion communication, self-awareness and theory of mind” (p. 2). They have suggested that responding empathically is reliant on cognitive as well as emotional factors, and “flow and integration of information between specific brain circuits” (p. 17). These authors reported that current theory indicates that empathy “involves partly dissociable components, including shared neural affective representations, self-awareness, mental flexibility, and emotion regulation” and that these are “mediated by specific and interacting neural systems” (p. 18). Within the neural systems, two key areas in the brain that are involved in emotional processing in general, and empathy in particular, are the anterior insula and anterior cingulate cortex (ACC). Decety and Moriguchi (2007) also indicated that disturbances “to different cortical and sub-cortical structures or circuits can lead to an alteration of empathy or even a lack of empathic ability” (p. 14). With reference to alexithymia, the empathy deficits are viewed as involving “aspects of mental flexibility to adopt the subjective perspective of the other and executive and regulatory processes that modulate the subjective feelings associated with emotion” (p. 17).

Throughout the relevant literature, empathy has often been conceptualised, measured, and defined as a unitary construct involving either emotional (Mehrabian & Epstein, 1970) or cognitive (Hogan, 1969) responses to another person’s experience. However, other investigators have acknowledged that empathic responding is a multifaceted process encompassing cognitive, affective, communicative, and interactive dimensions (Barrett-Lennard, 1981, 1986, 1997, 2003; Davis, 1983).

Some of the studies investigating alexithymia and empathy have arisen from research examining alexithymia in relation to other constructs such as temperament and character

(Grabe et al., 2001), and emotional intelligence (Davies et al., 1998; Dawda & Hart, 2000; Parker et al., 2001), with empathy forming an incidental component to the major findings. Grabe et al. (2001) found the TAS-20 total score, and each of the three factors (*difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking*) to be significantly and negatively correlated with the empathy subscale on the German Version of the Temperament and Character Inventory (TCI). Parker et al. (2001) found the total TAS-20, and all three factors, to be significantly and negatively correlated with the *EQ-i* (Bar-On, 1997) empathy subscale. Although Dawda and Hart (2000) did not specify findings on specific *EQ-i* subscales, they found the TAS-20 total score for both males and females to be significantly and negatively correlated with the *EQ-i* interpersonal scale (which includes the empathy subscale).

Davies et al. (1998) utilised the TAS-20 as an emotional intelligence measure, and found the Mehrabian and Epstein (1970) scale of emotional empathy to be negatively correlated with the *externally oriented thinking* factor of the TAS-20. However, despite the significant result, Davies et al. (1998) questioned the reliability of the TAS-20. Further investigation indicated that the findings from that study must be regarded with caution because a True/False response format on the TAS-20 was used instead of the instrument's five-point rating scale (see Davies et al. 1998), and there was a failure to reverse score the negatively keyed items on the TAS-20 (Parker et al., 2001). Subsequent analytic correction resulted in higher, and satisfactory, reliability of the TAS-20 (Ciarrochi et al., 2000b).

Other studies conducted by Bekendam (1997 Dissertation cited in Taylor & Bagby, 2013), Grynberg et al. (2010), Guttman (2002), Guttman and Laporte (2002), Moriguchi et al. (2006, 2007), Sonnby-Borgström, 2009, and Teten, Miller, Bailey, Dunn, and Kent (2008), all utilised the TAS-20 to measure alexithymia and the Interpersonal Reactivity Index (IRI, Davis, 1983) to measure empathy. The IRI incorporates both cognitive and emotional aspects of empathy and evaluates an individual's Perspective Taking (PT; the ability to see another person's point of view), Fantasy (F; the ability to identify with fictional imagination), Personal Distress (PD; feeling anxious when in a tense emotionally negative situation), and Empathic Concern (EC; feeling sympathy and concern for others' unfortunate circumstances).

Alexithymia was found to be inversely associated with the IRI subscales of Perspective Taking and Empathic Concern (Bekendam, 1997 Dissertation cited in Taylor & Bagby,

2013; Sonnby-Borgström, 2009), with Sonnby-Borgström (2009) confirming the Perspective Taking association by also finding that, compared to individuals with low alexithymia, those with high alexithymia were less able to imitate facial expressions of negative emotion.

A study by Grynberg et al. (2010) initially found significant negative associations between the TAS-20, DIF, DDF, and EOT and Perspective Taking (PT), negative associations between the TAS-20, DDF, and EOT and Empathic Concern (EC), and positive associations between the TAS-20, DIF, and DDF and Personal Distress (PD). Whilst DIF was positively correlated with Fantasy (F), EOT showed a negative correlation with Fantasy. However, controlling for anxiety eliminated the significance between the TAS-20, DIF, DDF, and Personal Distress. Controlling for depression did not negate any of the significant findings.

Guttman (2002) investigated alexithymia and empathy in a group of women diagnosed with borderline personality disorder (BPD) and their parents. Findings indicated that a lack of empathic parenting negatively influenced attachment care giving, and that a greater degree of adaptive communication was associated with lower alexithymia in family members. In an extension to that study, Guttman and Laporte (2002) examined women with BPD, anorexia nervosa (AN), a non-clinical control group, and the families of the women. Negative associations were found between the alexithymia factor *difficulty identifying feelings* and the IRI scales of PT and PD, between *difficulty describing feelings* and PD and EC, and between *externally oriented thinking* (EOT) and PT, F, and EC scores. Moreover, women with BPD and AN were found to have higher alexithymia scores than those in the control group. Women with AN had higher alexithymia scores than their parents, and family members of women with BPD had the highest levels of alexithymia of all of the groups. In the families of women with BPD, there was also an association between high alexithymia in one of the parents and low levels of empathy in the other parent.

Within the previously cited studies by Moriguchi et al. (2006, 2007), investigations of associations between the TAS-20 and the IRI found negative correlations between high alexithymia and PT, PD, and EC scores (but not the F scores). Also, Khodabakhsh and Fatehi (2012) found that the TAS-20 was negatively correlated with the total IRI measure.

Teten et al. (2008) investigated middle-aged male war veterans recruited from a trauma clinic and found that, whilst deficits in Empathic Concern (EC) predicted general verbal

aggression, alexithymia (measured with the total TAS-20) predicted impulsive aggression. Neither of the EC or TAS-20 deficits predicted general physical aggression. The association between alexithymia and impulsive aggression supports the view that those with high levels of the emotional difficulties are prone to ‘affect storms’ or episodes of explosive anger as a way of relieving unregulated emotion and tension (Krystal, 1979).

These studies have provided consistent evidence that those with a high degree of alexithymia have difficulty with cognitive and emotional aspects of empathy; however, it is also important to consider that all of this research reflects only one side of the empathy process, that is, individuals’ perceptions of the empathy they *provide*. This raises a question of whether alexithymia is associated with the ability to *receive* empathy from others, which to date, appears to have been an absent area of empirical inquiry.

Furthermore, although the findings that alexithymic individuals have limited empathic ability are of value, there appears to have been no investigation of whether the findings can be generalised in a way that provides clinical benefits to highly alexithymic individuals, or to couple partners who have alexithymic discrepancies. In order to contemplate this, however, it would seem judicious to examine firstly whether those with high alexithymia are able to receive empathy.

To my knowledge, the only empathy measure able to capture individuals’ perceptions of the empathy they provide and the empathy they receive is the Barrett-Lennard Relationship Inventory (BLRI; Barrett-Lennard, 1986). In accounting for the multidimensional nature of empathy, Barrett-Lennard has developed “the most explicitly differentiated conceptualization of the interactive process of empathic responsivity” (Harman, 1986, p. 371). Originating from Carl Roger’s conditions of empathic understanding, positive regard, congruence, and unconditionality deemed optimal in therapeutic practice, Barrett-Lennard (1981, 1983, 1986, 1997, 2003) construes empathy as an intrapersonal, interpersonal, and multiphasic process, and he has expanded the concept of empathic understanding within the therapeutic setting to include a wider range of interpersonal relationships (Barrett-Lennard, 1997). From this view, empathy relates to having awareness of, and being sensitive to, one’s own inner thought and feeling processes, having the ability to act responsively to others from this awareness, and being able to receive empathy from others (Barrett-Lennard, 1983, 2003). In this sense, according to Barrett-Lennard (1997), “empathy or its lack not only has a profound bearing on relations with others but also has a crucial role in the person’s inner world” (p. 119).

The multidimensional perceptual view of empathy developed by Barrett-Lennard (1962, 1981, 1983, 1986, 1997, 2003) seems to have similarities and differences to the empathic accuracy paradigm proposed by Ickes (1993). The two areas are similar in that they both relate to congruence between couple partners' perceptions. However, where empathic accuracy is measured in terms of couples' congruence in empathic content, Barrett-Lennard's view of empathy is measured in terms of congruence between couples' perceptions of whether the empathy provided to each other is actually experienced as being received. It is this concept of empathy that is of interest in the current research.

Barrett-Lennard's (1986, 1997, 2003) notions of empathy also seem to have similarities with the concept of reflective function proposed by Peter Fonagy and colleagues. Reflective function is "the capacity to envision mental states in the self and others" and includes "the ability mentalize, to represent behavior in terms of mental states, or to have a "theory of mind" (Fonagy & Target, 1997, p. 679). Mentalization has been viewed as being founded in four polarities, with each polarity related to separate neural systems. "These polarities are (a) automatic-controlled, (b) internally focused-externally focused, (c) self-oriented-other-oriented, and (d) cognitive-affective" (Fonagy & Target, 1997, p. 106).

Treatments have been developed for mentalizing problems, which include Metacognitive Based Therapy (MBT), aimed at assisting clients who have problems with affect regulation (Bateman & Fonagy, 2006), and Metacognitive Interpersonal Therapy (MIT), which was developed for specific use with clients who have poor emotional awareness (Dimaggio & Lysaker, 2010). Additionally, an expanding body of evidence linking biological systems and interpersonal understanding suggests that the use of intranasally administered oxytocin improves performance on mentalizing tasks, trust, generosity, and emotional attunement to observed suffering (see Fonagy & Target, 1997, pp. 99-100). In examining the mentalizing polarities, similarities can also be seen with alexithymia. Given the biological bases of emotion, and the links these have to the emotional deficits of alexithymia, a beneficial area of future investigation may be to examine whether MBT, MIT, and oxytocin have some applicability for those who are highly alexithymic. This idea is supported by Fonagy and Target (1997), who stated that "the polarities offer a framework for understanding the way mentalization relates to overlapping constructs such as theory of mind, empathy, mindfulness, alexithymia, emotional intelligence, psychological mindedness, and insight" (p. 106).

The associated mentalizing literature notwithstanding, according to Barrett-Lennard (2003), empathic understanding is “an active process, not just a reflective mirroring” (p. 96), and it involves “a *desire* to closely engage with and know the other’s experience and to *reach out* to receive their feeling communication and meaning” [emphasis in original] (p. 96). As such, “empathic understanding is the most crucial kind of responsive knowing in interpersonal-relational life” (p. 34). Barrett-Lennard (2003) suggested that there are (at least) two ways in which empathic communication can be approached and treated. In one way, “*we respond entirely to the literal content of the other’s statement*”, and the second way is where “*responding takes the other’s words as an expression of their inner experiencing, view and meaning, at the time*” [emphasis in original] (p. 35). In both ways, however, the listener retains a background awareness that the other’s expressed communication belongs to that person, and “it is this awareness that helps to make empathy distinct from identification or sympathy” (p. 35).

Within the total process of interpersonal empathy, Barrett-Lennard (2003) proposed that there are three main phases. Phase 1 is where one person is actively attending to or listening with an empathic attitude to another person who is in some way expressing his or her experiencing. The core aspect of the first phase is that, at some point, the listener has an inner recognition and understanding of the other person’s experience. In Phase 2, the listener communicates that empathic understanding in ways that may be voluntary or involuntary and/or verbal or non-verbal. Importantly, if the listener’s response does not emerge from an inner empathically felt process, and is merely a technical mirroring of the other person’s words, this is not truly Phase 2 empathy. Phase 3 empathy is the speaker’s experience of receiving the empathic understanding.

The experience of being heard and understood can have a significant influence on the receiver; “whether of relief, of something at last making sense, a feeling both of inner connection and being less alone, and very possibly a sense of something further to express – which *opens in the wake of having been understood*” [emphasis in original] (Barrett-Lennard, 2003, p. 37). However, Barrett-Lennard (1997) did acknowledge that those who have limited scope for empathic responding, perhaps due to a developmental failure for such responsiveness, will be unreceptive to the “felt inner experiencing and meanings” of both the self, and of others (p. 104).

The views of Barrett-Lennard (2003) seem to resonate with vital elements that are missing in the lives of those who are highly alexithymic. Consequential to the alexithymia

emotional deficits, it may be that their inability to provide empathy is partly because this kind of responding is outside of their frame of reference and experience. Given the developmental, family of origin, and attachment influences involved in alexithymia, it seems likely that these people will have received little understanding from others. In addition, one might assume that the influences of their early experiences do extend into adulthood, and that their communicative styles continue to engender minimal empathic understanding from others. Therefore, in being unable to provide what has not been experienced, there will be a lack of knowledge about how to be empathically understanding, even though this would be limited to their cognitive or literal perspective.

Barrett-Lennard (2003) stated “without activation of empathy, the individual lives in emotional isolation” (p. 50). Along with living a life of emotional isolation, there may also be a sense of loneliness, which may be unable to be expressed to others or may not even be recognised by the highly alexithymic person (Taylor, 2011). Taylor (2011) provided insight into the profound loneliness that can exist in those with severe alexithymia, which can be present despite being in a relationship with a significant other. Indeed, Frye-Cox and Hesse (2013) found that in married couples, “higher alexithymia was associated with greater loneliness, which predicted lower intimate communication, which was related to lower marital quality” (p. 203).

From a clinical standpoint, it may be that educating highly alexithymic individuals, and their more emotionally competent partners, about the cycle of empathic understanding provided and received could be a fundamental way of helping these couples to interrupt the negative trajectory that may be occurring within their relationships. Although the alexithymic partner may not be able to respond from an emotional inner experiencing, if the desire and motivation are present, he or she may have the capacity to respond from a cognitive and literal perspective. Although this kind of responding would not represent true Phase 2 empathy (e.g., Barrett-Lennard, 2003), it could provide a communication method that is within their capabilities, and demonstrate to their partners a willingness to meet their needs as much as is possible. If more emotionally competent partners also learn to provide empathy, their understanding may increase of the emotional difficulties that are influencing the marital distress, and they may develop greater compassion for their alexithymic spouses. This, in turn, may have the potential to improve the quality of the couples’ relationships.

Swiller (1988) stated that when treating highly alexithymic individuals, part of the therapists' role will be that of a teacher. In educating couple partners who have alexithymic discrepancies, the well-known listener-speaker exercise detailed in the research purpose section seems to have merit. Although that method is often utilised in treatment with therapy couples, it may be particularly applicable for alexithymic-discrepant couples. The value of this exercise is that it is achievable for both partners, has the potential to engender greater understanding of their differing perspectives, requires partners to join together with a shared focus on the achievement of a common goal, and it can continue to have benefits as the process is practised and generalised to situations outside of the therapeutic setting. Moreover, it has the potential to create a sense of positive emotional connection within their relationships. As Barrett-Lennard (2003) indicated, it is through empathic understanding that emotional connection is possible.

Emotional Connection

In support of the importance of emotional connection within intimate relationships, Lewis (1998) reported findings based on three decades of clinical experience, and cross-sectional and longitudinal research conducted under the auspices of The Timberlawn Studies. Lewis (1998) concluded that the common characteristics prevailing in well-functioning marriages involve: (1) a strong emotional connection existing between the couple partners, (2) a balance between partners' separateness and connection, and (3) the ability to repair connections following unavoidable times of low synchrony.

Expanding on Lewis (1998), Gottman (1999), and Gottman and DeClaire (2001), stated that a major cause of divorce is the failure of couples to connect emotionally. To achieve such connection, an important relational element is that couples need to be mindful of, and attend to, the often-overlooked everyday moments of interpersonal interaction, as this can assist in regulating conflict within relationships (Gottman & DeClaire, 2001).

Past research examining marital disharmony has found that the most commonly given reason by couples for wanting to divorce is feeling unloved (Gigy & Kelly, 1992). This is consistent with Gottman (1999) who stated "the interactions of couples in treatment are often *not* characterized by intense fighting but by emotional distance and the absence of affect" [emphasis in original] (p. 24). Based on over 40 years of clinical experience and empirical investigation into the dynamics of successful and unsuccessful relationships, John Gottman and colleagues have examined the importance of emotion in relationships,

how emotional distance is created, and the ways in which emotional connection can be strengthened (e.g., Gottman, 1999; Gottman & DeClaire, 2001; Schwartz Gottman, 2004).

Gottman and DeClaire (2001) suggested that a large part of emotional connection involves emotional expression, which serves a number of functions. These authors suggested that the process of identifying and naming feelings activates areas in the brain that are related to logic and language. If such activation is followed by expression, there can be a greater sense of control over emotions, and use of emotional information to guide action. This can lead to the adoption of coping strategies aimed at regulating negative affect, gains in social support, a subsequent reduction in stress, and more adaptive outcomes. Moreover, having awareness and empathic understanding of one's own emotions, and the emotions of one's partner, provide a base for the kind of emotional connection possible, and the level of intimacy, support, and closeness that can be achieved within a significant relationship. All of these features resonate with the difficulties experienced by those with alexithymia.

Within couples, there are two important emotion-related processes that occur that are highly predictive of the success or failure of their relationships. One process involves discrepancies in couple partners' views, expression, and experience of emotion, and these mismatches alone create relationship problems and can predict divorce with 80% accuracy (Gottman, 1999; Gottman, Katz, & Hooven, 1996). The second process involves crucial interpersonal behaviours that can predict the success or failure of an intimate relationship with 91% accuracy (Gottman & Silver, 1999). This second process relates to "two simple truths" about improving intimate relationships (Gottman & DeClaire, 2006, p. 3). One truth is that with happy couples, "their relationships are characterized by respect, affection, and empathy", they have a high ratio of positive to negative behaviours during conflict, and they feel emotionally connected (Gottman & DeClaire, 2006, pp. 3-4). These characteristics are related to the second truth, which suggests that happy couples "handle their conflicts in gentle, positive ways" (Gottman & DeClaire, 2006, p. 4).

In line with the basic principles of successful relationships, Gottman (1999) developed a theory called The Sound Marital House, which was later renamed The Sound Relational House theory (SRH; Schwartz Gottman, 2004). The development of this theory was based on a 14-year longitudinal study involving over 700 couples, whereby primary relationship elements were identified in couples who stayed together. Findings indicated that couples who successfully stayed together approached their relationships with three main objectives:

(1) their romance was kept alive through the fundamentals of friendship, (2) they managed their conflicts well, and (3) they created a shared sense of meaning that knitted their lives together (Schwartz Gottman, 1994, p. 2).

Based on achieving these objectives, The SRH theory can be likened to a house that is subdivided into seven levels, with the first three levels representing the foundation for building strong relationships. Essentially, if couples do not have the first three levels, the rest of the house will be built on a tenuous base. Briefly, starting from the bottom, the levels involve: (1) Love Maps - these represent the knowledge we have about our partner's internal and external worlds. Happy couples accept that each other's lives are constantly changing and they actively seek to continually update their knowledge; (2) Fondness and Admiration - this involves voicing thoughts and feelings of care and respect for our partners; (3) Turning Toward - this is a vital element, which represents the nuts and bolts that hold the Sound Relational House together, and involves positively responding to a partner's bid for connection; (4) Positive Sentiment Override – this is the positive bonus perspective that is attained when the first three levels have been solidly built; (5) Managing Solvable Problems – this involves regulation of conflict, recognising when problems are solvable rather than perpetual, discussing problems using a soft start-up rather than criticism (i.e., starting conversations with 'I' instead of a blaming approach of 'you'), having the ability to repair the impact of negative or hurtful words and actions, being able to self-soothe when physiologically aroused, accepting influence from a partner, and showing compromise during conflict resolution; (6) Dialogue with Perpetual Problems and Honoring Each Other's Dreams – this includes utilising the speaker-listener exercise to understand each other's perspectives, with the aim of moving past conflicts that are perpetual and gridlocked; and (7) Creating Shared Meaning – this incorporates the concept of Love Maps whereby partners come to know each other on a deeply meaningful level (Gottman, 1999; Gottman & DeClaire, 2001; Schwartz Gottman, 2004, pp. 3-8).

Although all of the levels are important, the focus in the current research with couples is the level three component of turning toward as it appears to be the 'glue' that holds the relationship house together, particularly in terms of sustaining the friendship and deepening the couple's connection. The level of turning toward is incorporated into the SRH theory through a concept involving the behaviours that couple partners utilise in response to each other's attempts to gain greater emotional closeness and connection.

Gottman and DeClaire (2001) proposed that when attempting to connect with others, people make verbal and nonverbal *bids* (that is, gestures, facial and body expressions, questions, etc.) to each other for emotional closeness, and that individuals typically respond to others' bids in one of three ways: (1) turn toward the other (responding in a positive and interested way); (2) turn away from the other (responding by ignoring the other person or acting preoccupied); or (3) turn against the other (responding in a belligerent or critical way). Reported findings from longitudinal research (at a ten-year follow-up time) indicated that couples who consistently turn toward each other "develop stable, long-lasting relationships rich in good feelings for one another" (Gottman & DeClaire, 2001, p. 16). The majority of couples who consistently turn against each other eventually separate and/or divorce. However, couples who consistently turn away from each other show the earlier divorces.

Although the actions of turning against and turning away from each other are destructive to couples' relationships, the most harmful communication pattern is that of *unrequited turning*. This occurs when one partner regularly turns toward the other whilst the other partner regularly turns away. Couples who engage in this style of connecting have the earliest divorces of all of the groups (Gottman & De Claire, 2001).

Aligned with the processes involved in the emotional connection behaviours, Gottman's (1998) relationship research review indicated that distressed and nondistressed couples differ in their interactional response patterns, and that seven dysfunctional interactional patterns appear to be predictive of relationship discord, separation, and divorce. Compared to couples in happy relationships, unhappy couples show patterns of: (1) greater reciprocal negative affect, which is believed to be related to failing to repair negative affect and interactions; (2) lower ratios of expressed positive to negative emotions, which has an optimal level of five positive interactions to every one negative interaction; (3) less positive sentiment override, which refers to global feelings of affection or disaffection for a partner; (4) interaction patterns containing criticism, defensiveness, contempt, and listener withdrawal; (5) greater female demand-male withdraw patterns; (6) persistent negative attributions about the partner, and negative narratives about the relationship; and (7) higher physiological arousal, for which distressed couples are unable to provide stress-reducing soothing.

Gottman (1998) suggested that, although the seven interactional patterns represent vital elements in the quality of relationships, investigation into the origins of such patterns has

resulted in psychologists seeking answers in the wrong place, which is, focusing on the area of conflict resolution. Consequently, Gottman (1998) proposed an alternative integrated aetiological relationship theory, called the Bank Account Model (BAM), to account for how the dysfunctional patterns of relating originate and interact. As will be shown below, the BAM theory incorporates the features of the first three levels in the Sound Relational House theory.

The Bank Account Model (BAM) Theory

The BAM theory is based on the view that within relationships, high rates of positive reciprocal connections (bids) accumulate over time, and result in a reservoir of good feelings and positive emotional ‘money in the bank’, which is then drawn upon to help de-escalate negative feelings during times of conflict (Gottman, 1999; Gottman & DeClaire, 2001; Schwartz Gottman, 2004).

The BAM theory proposes that the seven dysfunctional interaction patterns reflect the *final* stage of a failure of three related processes: (1) the ratio of low levels of positivity to negativity when interacting about the day-to-day, mundane situations of life (i.e., the responses to bids when in *nonconflict* interactions); (2) the level of ‘cognitive room’ or thinking about the partner, his or her world, and the relationship (i.e., the couple’s Love Map); and (3) the level of spontaneous expressions of admiration and affection for a partner (i.e., the Fondness and Admiration System).

Gottman (1998) suggested that the interrelatedness of the three processes occurs because a high ratio of low positivity to negativity in nonconflict interactions is associated with greater turning away than turning toward one’s partner, which can result in an accumulation of everyday moments to which a partner’s bids for emotional closeness are not responded. The lack of responsiveness can lead to criticism, which may lead to contempt, defensiveness, and listener withdrawal.

Furthermore, a higher level of turning toward leads to positive sentiment override, whereas greater turning away leads to negative sentiment override. A central influence in positive sentiment override is providing physiological soothing to one’s partner during interactions concerning the day-to-day details of the couple’s life events. Physiological soothing can occur through using stress-reducing actions such as showing interest and affection, and providing validation, humour, and empathy. The amount of cognitive room or thinking allocated to one’s partner, his or her life, and the relationship, is an important

predictor in the longevity of the relationship, particularly for males. This process involves knowing about one's partner's life, and continually updating that knowledge. The degree of spontaneous expression of admiration and affection to one's partner also contributes to positive or negative sentiment override. Positive or negative sentiment override determines whether repair can occur when in conflict situations, and successful repair reduces negative affect reciprocity (Gottman, 1998).

In examining the role that emotional connection plays in couples' relationships, together with the BAM theory (Gottman, 1998; Gottman & DeClaire, 2001), there appear to be striking conceptual comparisons that can be made with high levels of alexithymia. Moreover, it is proposed that these views lend some explanatory power to the ways in which alexithymia may produce a negative impact on some couples' relationships.

Alexithymia, Emotional Connection, and the BAM Theory

The alexithymia deficits, and the associated difficulties with empathy and relationships, may lead to difficulty demonstrating and responding to emotional bids, and a subsequent inability to form a deep emotional connection with a partner. Therefore, it may be that, in couples' relationships involving alexithymic-discrepant partners, the relationship begins well due to the partner with high alexithymia presenting as a well-functioning and capable individual. However, difficulties may gradually arise because there is little empathic understanding provided by the alexithymic partner, misreading of non-verbal emotional cues, and because the partner who is more emotionally competent makes frequent emotional bids (turning toward) to which the highly alexithymic partner is unable to respond emotionally. The partner making the emotional bids may perceive this as continual turning away or turning against, thus resulting in an accumulation of everyday moments of unrequited turning, which leads to a sense of emotional disconnectedness and distance. The continual unrequited turning may begin a trajectory leading to failure of the three related processes identified in the BAM theory, and resulting in the seven dysfunctional interaction patterns that are predictive of separation and divorce.

Given the importance of relationships to individuals' well-being, and the empirical and conceptual linkages that have been made, there seems a compelling need to examine the effects of alexithymia on couples' empathy, emotional connection, and relationship dissatisfaction. To date, despite consistent notation of the interpersonal difficulties created by high levels of alexithymia (e.g., Hesse & Floyd, 2008; Krystal, 1982-83; Montebanocci

et al., 2004; Swiller, 1988; Taylor, 2001; Vanheule, Desmet et al., 2007a; Vanheule, Desmet, Rosseel et al., 2007b; Vanheule, Meganck, & Desmet, 2011; Vanheule et al., 2010), there has been comparatively little systematic investigation of the influences of alexithymia within couples' relationships. It has been only over the past 12 years that a gradually emerging body of research has directed an empirical focus toward this area.

Alexithymia and Couples' Relationships

Within the literature on alexithymia and couples' relationships, an extensive search indicated that up until 2013, 12 studies had been conducted. Of these, 11 are published studies (Cordova et al., 2005; Eid & Boucher, 2012; Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Frye & Feistman, 2010; Frye-Cox & Hesse, 2013; Humphreys et al., 2009; Mirgain & Cordova, 2007; P russe, Boucher, & Fernet, 2012; Wachs & Cordova, 2007; Yelsma & Marrow, 2003) and one is an unpublished dissertation (Dunham, 2008).

Review of Previous Alexithymia and Couples' Research Methodology

Although the samples in all of the studies were non-therapy heterosexual community couples, the nature of the samples varied. Whilst some of the samples consisted of intact community couples who were living in marital and/or de facto relationships (Cordova et al., 2005; Dunham, 2008; Eizaguirre, 2002; Foran et al., 2012; Frye-Cox & Hesse, 2013; Mirgain & Cordova, 2007; Wachs & Cordova, 2007; Yelsma & Marrow, 2003), other samples comprised university students and their spouses (Eid & Boucher, 2012), university students and their intimate partners who had been dating for a minimum of three months (Frye & Feistman, 2010), married, cohabiting, and dating couples that contained one partner who was attending a university (P russe et al., 2012), and university students who were in a couple relationship, but not with each other (Humphreys et al., 2009).

Seven studies examined alexithymia and couples' relationship quality (Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Frye & Feistman, 2010; Frye-Cox & Hesse, 2013; Humphreys et al., 2009; Yelsma & Marrow, 2003), and four studies indirectly tested this association through utilising facets of the TAS-20 alexithymia measure to assess 'emotion skills' in marriage (Cordova et al., 2005; Dunham, 2008; Mirgain & Cordova, 2007; Wachs & Cordova, 2007). P russe et al. (2012) examined alexithymia and couples' relationships but did not include a measure of relationship quality.

There were dissimilarities in the alexithymia variables tested, and despite all of the studies utilising the alexithymia TAS-20 measure, different aspects of that scale were employed. Variations included use of the total TAS-20 scale and its three factors of DIF, DDF, and EOT (Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Humphreys et al., 2009; Pérusse et al., 2012), the total TAS-20 scale (Frye & Feistman, 2010; Frye-Cox & Hesse, 2013), and the DIF, DDF, and EOT factor subscales (Yelsma & Marrow, 2013). In addition, Foran et al. (2012) also tested partner-rated alexithymia using the Observer Alexithymia Scale (OAS; Haviland et al., 2000).

In the four emotion skills studies, the TAS-20 DIF and DDF factor subscales were utilised and analysed as separate scales (Cordova et al., 2005; Dunham, 2008; Mirgain & Cordova, 2007; Wachs & Cordova, 2007); however, Mirgain and Cordova (2007), and Wachs and Cordova (2007) also summed and averaged the two subscales to produce a composite variable to measure self-reported emotion skills. Furthermore, Mirgain and Cordova (2007) used a composite DIF and DDF variable to assess observed emotion skills, and they also included DIF and DDF in two broader composite variables, one that included five emotion skills and one that included 10 emotion skills.

The variable of empathy provided was included in two studies that utilised the TAS-20 and a marital satisfaction measure (i.e., Mirgain & Cordova, 2007; Wachs & Cordova, 2007). In both of these studies, the empathy instrument was the Interpersonal Reactivity Index (IRI, Davis, 1980). Both Mirgain and Cordova (2007), and Wachs and Cordova (2007), utilised the IRI subscales of Perspective Taking, Empathic Concern, and Personal Distress separately, and Mirgain and Cordova (2007) also constructed a composite measure whereby scores on the three subscales were averaged to create a global empathy score.

In the research that has included an outcome measure of relationship quality, variations exist in the measures employed. Most studies used the Dyadic Adjustment Scale (DAS; Spanier, 1976) to assess relationship satisfaction (Cordova et al., 2005; Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Wachs & Cordova, 2007; Yelsma & Marrow, 2003), and the revised DAS (RDAS; Busby, Christensen, Crane, & Larson, 1995) was used by Dunham (2008) and by Frye-Cox and Hesse (2013). Humphreys et al. (2009) used the Relationship Assessment Scale (RAS; Hendrick, 1988), and Frye and Feistman (2010) employed the Investment Model Scale (IMS; Rusbult et al., 1998). Mirgain and Cordova (2007) used the Global Distress Scale (GDS) of the revised Marital Satisfaction Inventory

(MSI-R; Snyder, 1997), which provides a measure of relationship dissatisfaction. Foran et al. (2012) also included the GDS as an additional relationship quality measure.

In examining the analytic strategies utilised in the above-cited research, a range of different methods were employed. Along with consideration of these strategies, it is important to take into account the issue of nonindependence, or relatedness, of couple data because, in dyadic research, the analysis is often guided by this feature (Kenny et al., 2006). Note that the salient features relating to nonindependent dyadic data are detailed in a later section.

Within the research being reviewed here, the issue of dyadic data nonindependence was avoided in a number of ways. For example, by sampling unrelated couple partners (Humphreys et al., 2009), analysing intact husbands', and wives', data separately (Cordova et al., 2005; Dunham, 2008; Eizaguirre, 2002; Foran et al., 2012; Mirgain & Cordova, 2008; Yelsma & Marrow, 2003), and/or by combining the spouses' data to form one group (Humphreys et al., 2009; Wachs & Cordova, 2007). As a result of these strategies, the analyses treated the 'individual' rather than the 'couple' as the unit of analysis.

Three of the studies addressed data relatedness through utilising analyses that enabled the 'couple' to be the unit of analysis. These studies sampled intact couples, and assessed mutual influences between spouses through use of the Actor-Partner Interdependence Model (APIM; Kenny et al., 2006); however, this technique was used in various ways. Eid and Boucher (2012) used the APIM within Structural Equation Modeling (SEM) to test actor and partner effects, and to compare the findings from the APIM technique to findings based on simple correlational analyses. Frye and Feistman (2010) used the APIM within path analysis to test actor and partner effects, and Frye-Cox and Hesse (2013) used the APIM within SEM to test a mediation model to explain the association between alexithymia and marital satisfaction.

With regard to alexithymia, emotional connection, and couples' relationships, there does not appear to have been any research investigating this combination of variables with individuals or with couples.

Review of Previous Alexithymia and Couples' Research Findings

The review of the findings from previous research pertaining to alexithymia and couples will commence with the studies that either did not include a relationship quality measure or did not sample cohabiting couples. This will be followed by the studies that included

relationship quality measures and comprised samples of dating, married, or de facto couples. In the interest of concision, brief descriptions of the studies and the main findings will be presented.

Pérusse et al. (2012) sampled a group comprising 75 married, cohabiting, or dating couples that contained one partner who was attending a university. Although a measure of relationship satisfaction was not included, couples' alexithymia was examined in association with observations of couples' communication behaviours of hostility, withdrawal, communication skills (in terms of identifying and expressing emotion), and support and validation (regarding positive listening and behaviours used to show support and understanding of a partner). Findings indicated that males reported greater DDF, EOT, withdrawal, and support-validation than did females, and females reported greater hostility and communication skills than did males. The APIM found that males' DIF was positively associated with their own hostility, and the hostility, withdrawal, and decreased communication skills of their partners. Males' DDF was associated with their partners' hostility. For the females, there were no significant relationships found between DIF, DDF, or EOT and their own communication behaviours, or those of their partners. Mediation analyses indicated that males' DIF was positively associated with their own hostility, which was then associated with a decrease in their partners' communication behaviours.

Humphreys et al. (2009) utilised a sample of 158 unrelated undergraduate students who were in couple relationships, and assessed alexithymia, relationship satisfaction, sexual satisfaction, and positive and negative affect. No gender differences were found between males and females on the TAS-20, DIF, DDF, or EOT. Total sample analyses found that the TAS-20, DIF, DDF, and EOT were all positively correlated with each other. The alexithymia variables were also all negatively associated with relationship satisfaction and with sexual satisfaction, and relationship satisfaction and sexual satisfaction were positively correlated. Negative affect was positively associated with the TAS-20, DIF and DDF.

Frye and Feistman (2010) sampled 53 university students and their partners, who had been in a couple relationship for an average of 26.47 months. These authors assessed couples on the TAS-20 and relationship quality. No gender differences were found on either of the measures. Findings from APIM analyses indicated that males' TAS-20 was

negatively associated with their own, and their partners', relationship satisfaction and level of commitment to the relationship. No significant effects were found for females.

Eid and Boucher (2012) employed a sample of 84 university students and their partners (relationship status not reported), and investigated the TAS-20, DIF, DDF, and EOT in association with the Dyadic Adjustment Scale (DAS). Results indicated that males had higher scores than females on the TAS-20, DIF, DDF, and EOT, and there were no gender differences on the DAS. Males and females were positively correlated on the total TAS-20, DIF, DDF, and EOT. Analyses utilising the APIM found that males' TAS-20 and DDF were negatively associated with their own relationship satisfaction, and that males' TAS-20, DIF, and DDF were negatively associated with their partners' relationship satisfaction. Females' TAS-20, DIF, and DDF were negatively associated with their own relationship satisfaction, and their DDF was negatively associated with their partners' relationship satisfaction.

Eizaguirre (2002) examined 72 couples' alexithymia and dyadic adjustment. The TAS-20, DIF, DDF, and EOT, and the Dyadic Adjustment Scale (DAS) measures were utilised. Findings indicated that there were no gender differences on the TAS-20, DIF, DDF, or EOT. Husbands' DIF was negatively correlated with their own relationship satisfaction, and husbands with a high degree of alexithymia had lower relationship satisfaction than did husbands with a low degree of alexithymia. Wives showed no associations between the alexithymia and relationship satisfaction variables, and there were no differences in relationship satisfaction between those who had a high or low degree of alexithymia.

James Cordova and colleagues (i.e., Cordova et al., 2005; Mirgain & Cordova, 2007; Wachs & Cordova, 2007) have been conducting a program of research examining the role of emotion skills in marital health. Although these researchers have not been assessing alexithymia *per se*, they have utilised the two TAS-20 subscales of difficulty identifying feelings (DIF) and difficulty describing feelings (DDF) as measures of emotion skills.

Cordova et al. (2005) explored associations between emotion skills (operationalised as DIF and DDF), intimate safety, and the DAS (marital adjustment/satisfaction) in 92 married couples. Findings indicated that husbands were higher on DDF than wives, and there were no gender differences on DIF. Husbands and wives were positively correlated on DIF and DDF. Significant positive correlations were also found between husbands' DIF and wives' DDF, and between wives' DIF and husbands' DDF.

In addition, husbands', and wives', DIF and DDF were negatively correlated with their own marital satisfaction and intimate safety. Both husbands', and wives', DIF was negatively correlated with their partners' relationship satisfaction. However, the association between husbands' DIF and wives' relationship satisfaction was fully mediated by wives' intimate safety. Husbands' DIF was negatively correlated with wives' intimate safety. Wives' DIF was not significantly correlated with husbands' intimate safety. Husbands' DDF was negatively correlated with wives' relationship satisfaction and intimate safety. This association was fully mediated by wives' intimate safety. Wives' DDF was not correlated with husbands' relationship satisfaction or intimate safety (Cordova et al., 2005).

In summarizing the main findings by Cordova et al. (2005), husbands had significantly greater difficulty describing their feelings (DDF) than did wives, and both husbands', and wives', difficulty identifying feelings (DIF) negatively affected their own and their partners' relationship satisfaction. Although husbands' difficulty identifying feelings also negatively affected wives' intimate safety, the wives did not have a reciprocal influence on their husbands. Both husbands', and wives', difficulty describing feelings negatively affected their own relationship satisfaction and intimate safety. Whilst husbands' difficulty describing feelings negatively influenced wives' relationship satisfaction and intimate safety, again, the wives did not have a reciprocal influence on their husbands. The negative associations between the husbands' two emotion skills and wives' relationship satisfaction were mediated by wives' sense of intimate safety.

Dunham (2008) replicated the study by Cordova et al. (2005) and examined a sample comprising 132 African American married couples who were recruited primarily from local area churches in North and South Carolina. Consistent with Cordova et al. (2005), Dunham operationalised emotional skillfulness as DIF and DDF but utilised revised versions of the DAS and intimate safety measures.

In comparing and contrasting the findings by Dunham (2008) and Cordova et al. (2005), where both studies found no significant gender difference on DIF, in contrast to Cordova et al., Dunham also found no significant gender difference on DDF. Both Cordova et al. and Dunham found positive correlations between husbands and wives on DIF, but in contrast to Cordova et al., Dunham did not find a correlation on DDF.

In both studies, husbands', and wives', DIF was negatively associated with their own and their partners' relationship satisfaction. Contrasting with Cordova et al., Dunham

found that both husbands', and wives', DIF was negatively associated with their own and their partners' intimate safety. Similarly to Cordova et al., Dunham found that husbands' DDF negatively affected their own and their wives' relationship satisfaction, and wives' DDF negatively affected their own but not their husbands' relationship satisfaction. Both Dunham and Cordova et al. found that husbands', and wives', DDF was negatively associated with their own intimate safety, and that husbands' DDF was negatively associated with their wives' intimate safety. In contrast to Cordova et al., Dunham found that wives' DDF also negatively affected husbands' intimate safety. Finally, where Cordova et al. found that only wives' intimate safety fully mediated the associations between husbands' DIF, DDF, and wives' relationship satisfaction, Dunham found that intimate safety fully mediated the associations between both husbands' and wives' own DIF, DDF, and their partners' relationship satisfaction.

Mirgain and Cordova (2007) expanded examination of associations between couples' emotion skills, intimacy, and relationship dissatisfaction (MSI-R global distress scale), and also initiated development of an observational measure of emotion skills. Participants were 76 married couples who were assessed on a range of emotion indices that included DIF and DDF (which were averaged to create a global measure of emotional difficulties), emotion control, comfort with emotional expression, and empathy (utilising the IRI; Davis 1980). The empathy subscales of perspective taking, empathic concern, and personal distress were analysed separately, and also averaged to create a global empathy score. Mirgain and Cordova (2007) also included DIF and DDF in two broader composite variables that included 5 emotion skills and 10 emotion skills.

Findings by Mirgain and Cordova (2007) suggested that there were no gender differences on DIF or DDF. Observations indicated that, compared to husbands, wives expressed more non-hostile negative emotions, named their feelings more often, and showed less defensiveness. With the self-report measures, compared to husbands, wives showed greater empathic concern, less discomfort with others' personal distress, and less inhibition of emotional responses (p. 995). Both wives', and husbands', emotion skills were negatively associated with their own and their partners' relationship dissatisfaction. Furthermore, although feelings of intimate safety partially mediated associations between emotion skills and relationship dissatisfaction, emotion skills were also shown to have direct effects on relationship dissatisfaction (on both observational and self-report measures). Overall, wives had greater emotional skillfulness than husbands.

Wachs and Cordova (2007) examined the theory that “mindfulness contributes to greater intimate relationship satisfaction by fostering more relationally skillful emotion repertoires” (p. 464). The sample comprised 33 married couples who had taken part in the study on emotional skillfulness conducted by Cordova et al. (2005). Participants’ previous responses on relationship satisfaction and emotion skills (DIF and DDF) were included in the study, as well as additional measures of empathy (using the IRI), life satisfaction, mindful awareness, and relationship quality indices, which were completed via telephone. With the empathy subscale of personal distress, the authors changed the directionality to reflect a lack of personal distress.

The results indicated that there were no significant gender differences on the mindfulness and marital quality scales. Wachs and Cordova (2007) stated that analysing husbands’, and wives’, scores separately did not change the results substantially and they therefore collapsed the couples’ scores by taking the mean. Couple-level analyses were utilised to test mindfulness and the other study variables.

According to Wachs and Cordova (2007), findings indicated that couple-level DIF was positively associated with DDF, anger in, anger out, impulsivity, and aggression, and was negatively associated with relationship satisfaction, lack of personal distress, and control of anger out. DDF was positively associated with anger in and impulsivity, and negatively associated with relationship satisfaction and control of anger out. Relationship satisfaction was positively associated with lack of personal distress and control of anger out, and was negatively associated with anger out, impulsivity, and aggression. Additional findings were that mindful awareness was positively correlated with relationship satisfaction, empathic concern, perspective taking, lack of personal distress, control of anger in and control of anger out. Mindfulness was negatively associated with DIF, DDF, anger out, lack of aggression control, impulsivity, and aggression.

With regard to the empathy subscales, empathic concern was positively associated with perspective taking, control of anger in, and control of anger out, and negatively associated with lack of aggression control. Perspective taking was positively associated with lack of personal distress, control of anger in, control of anger out, and anger in, and negatively associated with lack of aggression control and impulsivity. Lack of personal distress was positively associated with control of anger in and control of anger out.

Foran et al. (2012) sampled 104 couples who were either married or living in a de facto relationship. These authors utilised a large battery of measures that assessed a variety of

variables. Relevant to the current research, the alexithymia measure was the TAS-20, and the DIF, DDF, and EOT factors, and the relationship quality scales were the DAS and the relationship dissatisfaction scale (GDS) of the MSI-R.

Foran et al. (2012) found positive correlations between husbands' TAS-20 and wives' DIF, DDF, and EOT, and between wives' TAS-20 and husbands' DIF, DDF, and EOT. Positive correlations were also found between husbands' DIF and wives' DDF, husbands' DDF and wives' DIF and EOT, and between husbands' EOT and wives' DIF and DDF.

In addition, for both husbands and wives, their own TAS-20 scores were correlated with their own decreases in relationship satisfaction and increases in their own relationship dissatisfaction. Husbands' TAS-20 was not associated with wives' relationship satisfaction or dissatisfaction; however, wives' TAS-20 was negatively correlated with husbands' relationship satisfaction and positively correlated with husbands' relationship dissatisfaction.

Frye-Cox and Hesse (2013) sampled 155 married couples, and assessed them on the TAS-20, the revised DAS, loneliness, and intimate communication. Findings indicated that for husbands, and wives, their own TAS-20 was negatively related to their own, and their partners', relationship satisfaction. Also, wives' loneliness was associated with decreases in their own, and their husbands', relationship satisfaction. Husbands', and wives', own loneliness was associated with their own lower degree of intimate communication. Mediation analyses indicated that for both spouses, their own alexithymia was associated with greater loneliness, which predicted less intimate communication, which was related to lower marital quality. For both husbands, and wives, their own loneliness mediated the association between their own alexithymia and intimate communication. It is noteworthy that Frye-Cox and Hesse (2013) were the only authors to test both direct and indirect effects when utilising the mediation analyses, which adds considerable rigour to the study and its findings.

It seems that to date, there has not been any investigation of couples' TAS-20 discrepancies and their influence on relationship (dis)satisfaction. However, Yelsma and Marrow (2003) explored couple partners' differences on the TAS-20 factors, and their effects on partners' relationship satisfaction; the differences were examined in terms of which spouse had the higher score on the factors. Yelsma and Marrow (2003) sampled 66 couples (58 married and 8 cohabiting), and examined associations between husbands' and wives' differences in their emotional expressiveness (operationalised as the TAS-20 factors

difficulty identifying feelings (DIF); *difficulty describing feelings* (DDF), and *difficulty personalizing feelings*, which relates to the externally oriented thinking factor of EOT) and relationship satisfaction (utilising the DAS).

Yelsma and Marrow (2003) initially found no gender differences on DIF, DDF, EOT, or on relationship satisfaction. However, after examining mean differences between the couples, significant differences were found between husbands and wives' DDF and EOT, but not for DIF. No significant difference was found between husbands and wives' relationship satisfaction mean scores (pp. 53-54). Further analyses found that DIF, DDF, and EOT predicted husbands', and wives', marital satisfaction, and that 12% of the variance in marital satisfaction was accounted for by the three measures.

With regard to emotion-related discrepancies between partners, 36 wives (54%) reported greater DIF than did their husbands, and 29 husbands (44%) reported greater DIF than did their wives. Twenty five wives (37%) reported greater DDF than did their husbands whereas 38 husbands (60%) reported greater DDF than did their wives. Twenty wives (30%) reported greater EOT than did their husbands, and 40 husbands (66%) reported greater EOT than did their wives. Also, some couples had the same levels of emotion-related difficulties: one couple had the same levels of DIF; three couples had the same levels of DDF; and six couples had the same levels of EOT (Yelsma & Marrow, 2003, p. 53). In examining husbands', and wives', specific emotion-related differences when each gender was higher in emotional expressiveness than the other, Yelsma and Marrow (2003, pp. 54-55) reported the following findings:

When husbands had greater DIF than did wives, there was no significant influence on husbands', or wives', relationship satisfaction. When husbands had greater DDF and EOT than did wives, only the husbands' own relationship satisfaction decreased. Although Yelsma and Marrow (2003) reported that wives' relationship satisfaction also decreased with husbands' higher DDF, the p value was .06, indicating that if utilising a significance level of .05, the finding may be better described as 'approaching significance'. Unfortunately, the authors did not state the overall study significance level against which the findings were evaluated. Furthermore, when wives had greater DIF than did husbands, both wives' and husbands' relationship satisfaction decreased. When wives showed greater DDF and EOT than did husbands, there was no significant influence on wives', or husbands', relationship satisfaction.

Thus, it appears that discrepancies between couple partners' alexithymia-related difficulties adversely affect both their own, and their partners', relationship satisfaction. Of particular interest is that Yelsma and Marrow (2003) found that, of the two genders, husbands were more influenced by their own, and their wives', emotion-related difficulties than were wives by their husbands' difficulties.

This body of research has importance to the alexithymia literature; however, there are some limitations of note. As can be seen, all of the studies utilised community samples of couples, with no consideration given to the impact of alexithymia within couples who are having relationship therapy. Also, some of the methodological and analytic strategies contain aspects that warrant enhancement. Although the inclusion of empathy in the studies by Mirgain and Cordova (2007), and Wachs and Cordova (2007), is of value, the method of collapsing multiple emotion-related variables to form composite measures creates a lack of specificity in the findings, particularly regarding associations between alexithymia, empathy, and relationship satisfaction; thus, these associations remain unclear. Additionally, the aspect of empathy *received* was not tested, and there also appears to have been no previous research examining the influence of alexithymia on couples' emotional connection.

Limitations notwithstanding, this previous research has provided a sound foundation for further investigation into alexithymia within couples, and the ways in which it influences partners and their sense of satisfaction or dissatisfaction with their relationships. The findings have also provided a base of evidence indicating that alexithymia and its emotion-related factors can have deleterious effects on couple partners' relationship satisfaction; although, at times, the effect may be indirect. In addition, the discovery that partners' DIF, DDF, and EOT factor discrepancies have negative influences on their relationship satisfaction shows some support for the work of Swiller (1988), and Gottman (1999), in terms of the adverse effects that couple partners' emotional mismatches can have on their relationships: This has particular relevance to the clinical field.

Clinically, when a couple with alexithymia-related distress attends for relationship therapy, it is probable that their fundamental issue will be that of marked differences in their levels of alexithymia, and hence, their emotional competencies: Such couples may present citing 'communication problems' and 'a lack of closeness' as their main concerns (Swiller, 1988). Although experienced clinicians may be familiar with the emotion-related *features* that characterise alexithymia (Taylor & Bagby, 2013), they may not be aware of

the alexithymia construct, its scope, or that it differs from having the emotional capacity to identify and express feelings and feeling inhibited to do so (e.g. Pennebaker & Traue, 1993). Therefore, therapists' knowledge of alexithymia is necessary to enable accurate distinction between different emotional capabilities in clients, and to understand the therapeutic processes that may be involved when treating highly alexithymic individuals and couples.

Alexithymia and Therapeutic Processes

The clinical importance of therapists having an understanding of alexithymia is underscored by Krystal's (1982-83) early statement that alexithymia is "possibly the most important single factor diminishing the success of psychoanalysis and psychodynamic psychotherapy" (p. 364). Furthermore, it has been estimated that approximately 25% of therapy clients are highly alexithymic (Grabe, Frommer, Ankerhold, Ulrich, Groger, Franke, et al., 2008); unfortunately, there do not appear to be any data on the prevalence of clients who have a moderate level of alexithymia. Given the empirical estimate for high alexithymia, however, there is a strong likelihood that therapists will be in contact with clients who have the associated emotion-related deficits.

Throughout the decades, it has been well recognised that, with highly alexithymic clients, psychological treatment presents a number of challenges for the both the client and the practitioner, and that gaining successful outcomes is difficult (Krystal, 1979, 1982-83, 1988; McCallum et al., 2003; McDougall, 1982; Ogrodniczuk, 2007; Ogrodniczuk et al., 2004, 2005, 2008, 2011; Sifneos, 1973; Swiller, 1988; Taylor, 1977; 1984a, b, 1997a, b, Taylor & Bagby, 2013; Vanheule, Verhaeghe et al., 2011). The therapeutic challenges are compounded when the treatment involves couples consisting of partners who have discrepancies in their levels of alexithymia (Swiller, 1988).

The complexity of couple therapy with alexithymic-discrepant partners is also exacerbated by two main commonalities that exist within the two treatment areas. Firstly, similarly to alexithymia, the process of couple therapy is considered difficult (Gurman, 2011), and secondly, although treatment has a positive effect for many couples (Gurman, 2011), the rates of successful long-term marital therapy outcomes are less than impressive (Gottman, 1999).

The lack of successful long-term therapy outcomes is supported by research findings that around one third of couples leave treatment not having achieved positive gains

(Gurman, 2011), and a substantial number of couples do not maintain the initial positive therapy gains that are achieved (Atkinson, 2005; Bambling, 2007; Doss et al., 2004; Gottman, 1998; Gottman, 1999; Gottman & Silver, 1999; Gurman, 2011; Schwartz Gottman, 2004). Also, Australian data has indicated that despite around 54% of couples showing reliable improvement from therapy, “the improvement is for *both* partners in only 36.1% of cases” [emphasis in original] (Bambling, 2007, p. 51). Therefore, it seems that when the element of high alexithymia is added to the treatment of a couple, the therapeutic process itself will be difficult, as will be the challenge to gain a successful long-term outcome for both partners.

In view of the treatment challenges in the alexithymia and couple therapy areas, it is relevant to consider the main sources of influence within the therapeutic process: In identifying these, the psychotherapy literature has provided some answers. Based on reviews comprising the evaluation of thousands of therapeutic treatment studies, Wampold (2001, 2010) concluded that the most important determinants of treatment and treatment outcomes are the client, the therapist, and the therapeutic alliance that is formed between the two. The alliance refers to the therapeutic relationship or bond formed between the client and therapist, the quality of which has been found to be one of the most consistent predictors of psychotherapy outcome (Bachelor & Horvath, 1999).

Importantly, in considering the main contributing factors to successful therapeutic alliances and outcomes, studies have found that although the client has a significant role to play, “dramatically more variance is due to therapists within treatments than to treatments” (Wampold, 2001, p. 226), and that across all therapy modalities, the therapist, and the skill he or she has in delivering the treatment, contributes more to therapy benefits than the particular treatment that is utilised (Wampold, 2010, p. 112). Therefore, the therapist is considered to have the most pivotal role in the therapeutic process. In reviewing the salient therapeutic processes that are involved when treating alexithymic-discrepant clients, the main influences are detailed below, with the focus being on the client, the therapist, and potential disruptions to the alliance.

The Influence of the Client

In the first instance, if alexithymic-discrepant couples do reach a point of seeking professional therapeutic help for their relationship distress, it is reasonable to believe that they arrive with an implicit expectation that the therapist will have the knowledge required

to recognise the source of their problems, and to assist in ways that produce positive relational outcomes.

Once the therapy process begins, the characteristics of highly alexithymic partners will emerge, and as noted earlier, although these clients may initially present as capable and competent, there is paucity in their emotional lives. Within the therapeutic setting, these individuals will struggle to identify what they are feeling emotionally, and may be unable to distinguish between feelings and their bodily sensations of emotional arousal. With this alexithymia aspect, their emotional distress may be experienced as somatisation. When somatisation of distress occurs, “emotions that are not experienced as feelings are experienced as bodily states” (Lane, 2008, p. 227), which may be related to the associations that have been found between alexithymia and a wide range of medical conditions (see Taylor et al., 1997b; Taylor & Bagby, 2013).

The propensity for somatisation of distress is an alexithymia element that merits emphasis because, as Krystal (1982-83) cautioned, “those with active psychosomatic diseases may, instead of experiencing strong emotion, develop a serious or even life-endangering exacerbation of their illness” (p. 363). Additionally, in clients who have an alcohol or other addiction, attempts to manage their upset may lead to an increase in the use of the addictive behaviour (Krystal, 1982-83; Wurmser, 1974) and/or other maladaptive coping behaviours (e.g., Taylor & Bagby, 2013; Helmes et al., 2008; Parker et al., 1998).

As a consequence of the lack of emotional awareness, highly alexithymic individuals will have difficulty describing or expressing their feelings to others. Whilst these individuals may be able to say that they feel ‘good’, ‘bad’, ‘angry’, or ‘sad’, further questioning will reveal that there is little ability to elaborate more specifically on these emotion states. There will be a focus on events external to themselves, and on the minutiae of those events; over time, others who are more emotionally competent may experience boredom with the lack of emotional content in the communication. Due to the externally oriented focus, alexithymic clients will also have a limited ability to make links between their distress and specific events. As such, this reflects negligible inner reflection, emotional or psychological insight, and the tendency to imagine goal directed future events. Interpersonally, they will not understand the feelings of their partner and will consequently lack empathy for that person. The relationship will lack a base of emotional

connectedness, and the alexithymic person will be puzzled by the negative emotional responses they engender (see Swiller, 1988; Taylor et al., 1997a).

As seen in the aetiology of alexithymia, highly alexithymic clients may have developmental histories that include emotional deprivation (Berenbaum & James, 1994; Lumley et al., 1996; Yelsma et al., 1998, 2000), inappropriate parenting (Kooiman et al., 1998; Mallinckrodt et al., 1998), and having lived in a family atmosphere that felt emotionally unsafe and was low in positive communication (Berenbaum & James, 1994). In addition, they may have experienced traumatic events in their lives (Krystal, 1988).

These early situations can give rise to insecure attachment styles that present as dismissing (Scheidt et al., 1999) and/or avoidant (Beckendam, 1997). In turn, their relationships will likely be based on an insecure style of attachment. As clients, they may have difficulty forming a secure attachment to their therapist (Mallinckrodt et al., 1998), which can affect the depth and smoothness of the therapy sessions (Mallinckrodt et al., 2005), as well as the alliance that is able to be formed.

Swiller (1988) appears to be the only author to directly address the therapeutic processes involved in couple therapy with alexithymic-discrepant partners. In terms of seeking professional assistance for relationship difficulties, Swiller (1988) indicated that individuals with a high degree of alexithymia rarely seek therapy of their own volition. If they do present for treatment, it will be due to pressure from a significant other person. Although the significant other person may be an individual's medical practitioner, it is most commonly his or her spouse, who applies pressure to attend because s/he is frustrated and dissatisfied with the lack of meaningful communication and/or emotional closeness in the relationship.

This view was supported for highly alexithymic males by Cusack, Deane, Wilson, and Ciarrochi (2003), who investigated alexithymia and the influences of men's attendance for professional psychological help. The findings indicated that, of the 73 males assessed, 96% reported that others had influenced their decision to seek help, with the people of most influence being their general medical practitioner and intimate partner. Thirty-six percent of the males reported that they would not have sought help without this influence. Encouragingly, more recent research has indicated that having a high degree of alexithymia is not a distinguishing factor in whether clients prefer psychotherapy, medication, or a wait-and-see approach to resolving their problems (Ogrodniczuk et al., 2009). Moreover, Ogrodniczuk et al. (2011) found that highly alexithymic individuals are

open to attending psychotherapy, although their preference is for group therapy. However, it seems that these people will experience greater struggles than emotionally competent individuals regardless of whether therapy occurs within an individual or group setting, and whether it is interpretive or supportive (Ogrodniczuk et al., 2011).

It is notable that, within the clinical literature on alexithymia, most of the research has focused on the characteristics of the client, with comparatively little attention directed toward the therapist. In paving the way, some clinicians have provided beneficial anecdotal evidence of the impact that highly alexithymic clients can have on their therapists (e.g., Swiller, 1988; Taylor, 1977, 1984b), and over the past decade, scholars have begun to empirically address the influence of the therapist within associated treatment outcomes (see Ogrodniczuk et al., 2011 for review).

The Influence of the Therapist

Encouragingly, Swiller (1988) believed that despite the clinical difficulties involved, marital therapy is possible with alexithymic-discrepant partners; however, this author also indicated that if the therapy proceeds quickly and shows rapid success, it is highly unlikely that the therapist is treating a client who has a significant degree of alexithymia. If, on the other hand, the therapy proceeds slowly and poorly, the converse is probably true (Swiller, 1988, p. 52). Having knowledge of this clinical indicator may be of particular value to therapists who are not familiar with the alexithymia construct.

When therapists are unaware of alexithymia, an initial consideration is that they may have an implicit assumption that all clients have access to their feelings and are emotionally capable and competent (Krystal, 1982-1983; Ogrodniczuk et al., 2011). Of course, such is not the case with those who have a high level of alexithymia. In this early stage of treatment, if alexithymic-discrepant couples' expectations intersect with the therapists' incorrect assumptions, there is potential for the alliance and treatment to be compromised, and the outcome to be poor (Krystal, 1982-83; Ogrodniczuk, 2007; Ogrodniczuk et al., 2011). This is largely because having such an assumption may lead to a lack of recognition of the true nature of clients' issues, and inaccurate perceptions about the alexithymic client and the meanings of his or her communications. In turn, this may influence treatment formulations and interventions, which can put the client, the alliance, and the outcome at risk (Ro & Wampler, 2009).

The issue of therapist assumptions preventing accurate recognition of the nature of clients' presentations was initially addressed by Krystal (1988), who stated that the alexithymia difficulties were not recognised earlier because "the role of emotions in psychotherapy is so central and essential that we did not catch on to these problems sooner because of our adherence to the conventional 'wisdom' that everyone can respond emotionally in an adult fashion but may be obstinately defending against it" (p. 254).

Given the emotional difficulties of highly alexithymic individuals, the interpersonal and communicative styles of these clients can be particularly challenging to emotionally competent therapists because, initially, there may seem to be little about the client that is open, expressive, or relatable. Further, therapists who are not aware of the construct may interpret their clients' lack of emotional responsiveness as resistance or noncompliance rather than as a deficit. If therapists do misinterpret couple partners' alexithymic difficulties in these ways, they might urge these individuals to complete emotion-focused tasks that are beyond their capabilities. When the partners are unable to complete the tasks, therapists' may have negative responses that can disrupt the therapeutic alliance. The responses of the therapist may cause clients to drop out of therapy prematurely, with the consequence that treatment outcomes will suffer (McCallum et al., 2002).

When treating alexithymic-discrepant partners, much patience is required by the therapist. This is because the nature of alexithymia precludes rapid progress and problem resolution, and the alexithymic client requires much remedial education. Within the therapeutic setting, this tends to make the alexithymic partner the focus of the couple's discord, which reinforces his or her position as 'the problem' in the relationship; this can lead to lowering of this person's self-esteem due to feeling criticised and confused. With the alexithymic partner experiencing bewilderment about the problem, and having no knowledge of how to change this position, there can also be great frustration on the part of the more emotionally competent spouse, which may further decrease the quality of the relationship (Swiller, 1988, pp. 52-53).

Similarly to the emotionally competent spouse, the therapist may experience a range of adverse feelings toward the alexithymic partner. For example, Swiller (1988) stated that highly alexithymic clients "are experienced as boring not only by their analysts; they are boring. They bore everybody" (p. 53). Swiller suggested that part of the therapist's task is to educate these clients that others experience them as boring, and to explain the reasons why this is so. Unquestionably, great thoughtfulness and tact are required when conveying

this message to alexithymic partners, and the message is best managed in a way that is non-destructive to the person's self-esteem (p. 53).

Empirically, researchers have begun to study therapists' responses to individuals with high alexithymia. Findings have indicated that the communicative styles of highly alexithymic clients do indeed evoke negative emotional reactions in therapists, which may lead to therapists responding in ways that convey these feelings to their clients (Ogrodniczuk, 2007). Furthermore, therapists have been found to perceive alexithymic individuals as being "cold, detached, or unempathic" (Ogrodniczuk et al., 2008, p. 262-263), and experience not only feelings of boredom with these clients, but feelings of dullness, frustration, despair, hopelessness, aggression, anger, dislike, and contempt (Krystal, 1982/83; Ogrodniczuk, Piper, & Joyce, 2005; Ogrodniczuk et al., 2008). Ogrodniczuk et al. (2008) found that when clients had higher levels of the alexithymia facets *difficulty describing feelings* and *externally oriented thinking*, they expressed fewer positive emotions, which then led to therapists having more negative reactions toward the clients.

The issue of the therapist experiencing negative feelings toward highly alexithymic clients is not new, and these responses are deemed to be counter-transference reactions. The concept of counter-transference is aligned with the concepts of transference and projection, and these terms originated within the frame of psychoanalytic psychiatry (see Sifneos, 1973; Taylor, 1977). Given that the initial conceptualisation of alexithymia was also within the field of psychoanalytic psychiatry (e.g., Sifneos, 1973), these terms are applied to explain the interpersonal reactions that occur between clients and their therapists. As such, they are viewed as important to the therapeutic alliance.

For readers who are unfamiliar with the terms, although numerous definitions have been proposed, transference is defined here as "the human capacity to project past experiences with significant figures onto a current relationship with the therapist" (Grant & Crawley, 2002, p. 16). Whilst transference can occur in any relationship, within therapy, the client's unresolved conflicts, defences, and/or early experiences are unconsciously transferred or projected onto the therapist, and the client experiences, and reacts to, the therapist as if s/he has the same attributes as a significant other (Grant & Crawley, 2002). Projection is considered a defence mechanism that is utilised by an individual to protect against experiencing perceived internal or external threat and the accompanying anxiety and/or

conflict. In avoiding the distressing experience, aspects of the self are denied and disowned, and are thereby transferred onto another person (Grant & Crawley, 2002).

Specific to the therapeutic relationship, the processes of transference and projection are crucial because they can provide a reflection of the client's unexpressed internal self, and the longstanding interactional patterns (Grant & Crawley, 2002, p. 12) that may be problematic in that person's life. Transferences involve persistent and subjectively distorted qualities that can be difficult to change despite evidence that contradicts the perceptions involved. However, although transference may be thought of as a process emanating solely from within the client, the therapist also has a part to play (Grant & Crawley, 2002; Taylor, 1977).

When transference and/or projection occur within therapy, in turn, the therapist will have an implicit or explicit response to the client; this response is known as counter-transference (Grant & Crawley, 2002). Having understanding and awareness of counter-transference responses are clinically important elements because "all affect is communicated, even if only unconsciously", and this includes therapists' perceptions of, reactions to, and feelings toward their clients (Maroda, 2010, p. 197).

When working with couples, there is additional complexity with regard to the transferences and counter-transferences that may occur. This is because the couple will have their own interpersonal transferences, and their joint transference toward the therapist. The therapist will have his or her own transference and counter-transference responses to each partner, and to the partners as a couple (Grant & Crawley, 2002).

In considering the alliance between the therapist and the client, "positive therapeutic outcomes are robustly predicted when therapists are experienced as being personally engaged rather than detached, collaborative rather than directive, empathic, and warmly affirming" (Orlinsky & Rønnestad, 2005, p. 179). Therefore, it behoves clinicians to be aware of their negative counter-transference responses because of the potential for engaging in a parallel process whereby they echo the very behaviours they perceive in the highly alexithymic client (McDougall, 1982). Swiller (1988) also cautioned that negative counter-transference reactions might occur particularly if the therapist's "self-esteem is closely tied to [his or] her ability to communicate with other human beings" (p. 53).

Taylor (1977) addressed therapists' counter-transference reactions to highly alexithymic clients, and stated that "at first sight the therapist experiences these as being his [or her] own response to something, not recognizing that they have been made by the patient" (p.

142). This is associated with psychoanalytic concepts of splitting and projective identification, whereby clients “split off much of what is experienced affectively and seek to control it by experiencing it as an attribute of the other” (McDougall, 1982, p. 385). In this, “it is the patient’s *creation*, it is a part of the patient’s personality” [emphasis in original] (Taylor, 1977, p. 142).

When treating highly alexithymic clients, it is these dynamics that are believed to occur within the therapeutic relationship and are the bases of therapists’ counter-transference responses. Having an appreciation of these dynamics is also clinically beneficial because it can assist therapists in seeing the value in their own felt reactions, and facilitate the use of these reactions to access the unconscious emotional world that lies beneath the alexithymic person’s seemingly empty façade (Taylor, 1977).

Counter-transference reactions in the therapist were once considered obstacles that needed to be replaced with neutrality; however, they are now viewed as valuable sources of information that can provide clues as to what is occurring in the client (Roper, 2011; Taylor, 1977; Taylor & Bagby, 2013). Thus, through understanding the features and nature of alexithymia, the attachment difficulties, and the defensive coping mechanisms employed by clients with high levels of the emotional deficits, clinicians can utilise their negative feelings as a guide to transforming and deepening the therapeutic experience for the client and for themselves. However, as Taylor (1977) poignantly stated, “the effort involved is in differentiating the patient’s contribution from one’s own” (p. 142).

The notion of therapists utilising their negative counter-transference reactions to clients can also be related to the aspect of therapist empathy. McWilliams (2011) suggested that although therapists may be self-critical about their negative reactions to clients, and view themselves as being unempathic, the responses to their clients might in fact indicate a high degree of therapist empathy. This may seem somewhat counterintuitive; however, it reflects a view of empathy as ‘feeling with’ rather than ‘feeling for’ clients (McWilliams, 2011, p. 14). In this, empathy is seen “in its literal sense of the capacity to feel emotionally something like what the other person is feeling” (p. 14). If therapists are empathising with the felt experiences of their clients, they will feel the clients’ “hostility, terror, misery, and other wretched states of mind” (p. 15).

Ideally, therapists will have the ability to see beyond, and work with, the personal and interpersonal styles of their alexithymic clients; however, research has found that, in order to do so, therapists require certain personal characteristics. Findings have suggested that in

managing and making use of the emotional responses evoked by highly alexithymic clients, therapists require the elements of self-integration, anxiety management, conceptualising abilities, empathy, and self-insight, with self-integration and self-insight being of particular significance (Hayes, Gelso, Van Wagoner, & Diemer, 1991).

In addition to the therapeutic processes outlined above, it is important for the therapist treating highly alexithymic individuals, or alexithymic-discrepant couples, to be mindful that traditional or emotion-focused modes of therapy (e.g., Greenberg & Johnson, 1988) will not be appropriate for these clients. This view is based on early clinical observations that highly alexithymic clients have minimal ability to benefit from insight-oriented therapy, which led to recognition that a modified psychotherapy approach is required (e.g., Freyberger, 1977; Freyberger et al., 1985; Krystal, 1979, 1982-83; McDougall, 1982; Ogrodniczuk et al., 2011; Sifneos, 1975, 1983; Swiller, 1988; Taylor, 1984a, b, 1997b; Vanheule, Verhaeghe, & Desmet, 2011; Warnes, 1986). As Swiller (1988) stated, the ideal treatment for those who are highly alexithymic “maximises their opportunities to learn while protecting their self-esteem and minimizing nonproductive stress” (p. 53).

Recommendations for a modified therapy have included providing a supportive form of therapy that involves different treatment phases (Freyberger et al., 1985; Krystal, 1979). It has also been recommended that, in the early therapy phases, “the therapist must comfortably accept the role of teacher. For these patients, at this time in their treatment, this is not surrendering to the resistance; it is doing what is required” (Swiller, 1988, p. 54). Affect tolerance is promoted through psychoeducation about emotions and their self-limiting nature, as well as the emotion-related difficulties involved in alexithymia. Clients are assisted in de-somatising their experiences by talking about themselves and their hypochondriacally based concerns, and through being taught how to separate their physical sensations from feelings, and correctly identify and label feelings (Freyberger et al., 1985; Krystal, 1979). Therapist guided reflection then helps alexithymic clients to see the links between their experiences, bodily symptoms, and feelings, and this is deemed to enable a greater ability for independent self-reflection (Freyberger et al., 1985).

In terms of assisting alexithymic-discrepant couples and their interpersonal communication, Swiller (1988) suggested that it may be of benefit for highly alexithymic partners to attend group therapy as an adjunct to individual or marital therapy. The group culture can be a useful and active milieu within which alexithymic partners learn about the effects on others that their lack of empathy and emotional awareness and expression can

have. By observing those who are more emotionally competent, there is an opportunity to gain greater awareness of interpersonal processes, emulate successful behaviours, and increase their empathic understanding of others' perspectives (Swiller, 1988). Learning these skills may transfer to the alexithymic partner's intimate relationship and assist in the development of a closer emotional connection.

However, if the client's alexithymia is lowered through these interventions, therapists need to be prepared for possible increases in distress levels as previously unacknowledged and expressed pain and emotion emerge. Appropriate treatment for the emerging psychological symptoms will then be required (McDougall, 1989) in terms of assisting the client to work through the distress.

Given therapists' potential influences on their highly alexithymic clients, the alliances formed, and treatment outcomes, it seems crucial for therapists to be aware of the alexithymia construct and its associated clinical implications; however, there are indications that this may not be the case. Bagby et al. (1991a) appear to be the first authors to raise the issue of clinicians' lack of knowledge about the alexithymia construct, with the early statement that alexithymia "is relatively unknown to clinical psychologists" (p. 222). A decade later, Tacon (2001) supported this by suggesting that there remains a substantial lack of awareness of the construct within clinical practise, which is problematic in terms of clients' treatment needs being met. To date, this clinical feature does not seem to have received any empirical attention.

Summary

The review of the alexithymia-related literature has aimed to provide a sound basis of information that may facilitate understanding of alexithymia and the implications it can have for individuals, couples, and their therapeutic outcomes. The primary intention has been to assist clinicians who may have little knowledge of alexithymia or the scope of the construct. Alexithymia is not considered a disorder *per se* as the emotional difficulties can exist in the general population as well as in people with medical, developmental, mental health, and relational issues. As such, it may be viewed as an underlying comorbid feature that can exacerbate any condition or relational problem that an individual may have. Furthermore, the presence of high alexithymia may have serious consequences for the well-being of the affected individuals, their partners, and the processes that occur when they seek professional help for their distress.

Throughout the process of therapy, the main sources of influence are the client, the therapist, and the alliance that is able to be formed. Within this triad of influence, it appears that therapists hold the pivotal position, and that their responses to the interpersonal styles of highly alexithymic individuals can adversely impact on all three elements. In this, the importance has been emphasised of therapists having awareness and knowledge of alexithymia.

Within the alexithymia literature pertaining to couples and therapists, some important empirical gaps have been identified. These gaps pertain to investigating couples' alexithymia in association with empathy received, emotional connection, and alexithymia discrepancies between couple partners. Examination is also warranted of the feasibility of utilising empathy and emotional connection behaviours as treatment strategies through testing their mediation between partners' alexithymia and relationship dissatisfaction. Furthermore, there has been an empirical absence concerning alexithymia and couples who are having therapy, and therefore an inability to compare community and therapy couples to ascertain if group differences exist. In extending the clinical focus, it seems essential to explore therapists' awareness of alexithymia, which may reveal a previously unrecognised source of influence in the poor treatment outcomes that have been noted.

These areas of investigation represent new research directions, and they aim to expand the general, relational, and therapeutic literature on alexithymia in addition to offering possible guidelines for future clinical endeavours. An outline of the research is presented in Chapter 3.

CHAPTER THREE

Outline of the Research

This research aimed to provide a coherent picture of the intrapersonal and interpersonal influences of alexithymia within couples, and examine alexithymia as a potential influence in therapists' treatment of couples' relationships and their outcomes. To achieve this, the variables examined were alexithymia, empathy provided, empathy received, the emotional connection indices of turn toward, turn away, turn against, and positive emotional connection, and global relationship dissatisfaction. In addition, therapists' knowledge of alexithymia was investigated.

A couple-focused program of research was formulated whereby Study 1 sampled nonclinical community couples, Study 2 sampled clinical couples who had recently entered relationship therapy, and Study 3 sampled therapists whose clinical work includes the treatment of individuals, and couples' relationships.

As shown in Figure 1, the first study, with community couples, encompassed the following: Preliminary analyses, the Actor-Partner Interdependence Model (APIM) to examine intrapersonal and interpersonal influences of alexithymia on the outcome variables, discrepancy analyses to assess the effect that spouses' differences in alexithymia may have on their empathy, emotional connection, and relationship dissatisfaction, and Structural Equation Modeling (SEM) to test whether the empathy and emotional connection variables mediate the relationship between alexithymia and relationship dissatisfaction.

The second study, with clinical (therapy) couples, was initially designed to replicate the analyses in the first study, and to compare the two samples to see if 'group' was a distinguishing factor in the findings. However, consultation with experienced clinicians suggested that it might be difficult to gain a sample of couples having therapy that would be large enough to undertake the replication aspect of the design. Despite lengthy recruitment efforts, this suggestion was shown to be accurate. Therefore, the analytic process in Study 2 was reformulated to advance the correlational and comparison components of the design.

The third study examined alexithymia from the perspective of therapists' familiarity with the construct. The sample consisted of therapists who were working clinically with individuals and couples, and was drawn from the practitioners who had agreed to refer couple clients for participation in Study 2.

In structuring the reporting of each study, consideration was given to the complexity of the research, the numerous analyses that were computed, and the many findings that emerged. To assist the reader in retaining the information presented, each study begins with a brief overview of the issues being addressed, and throughout the various sections, summaries are included of pertinent information and findings. The summaries are highlighted by their placement in shaded text boxes. As a further aid to readability, within these sections, the variables' names are capitalised, and in the reporting of the statistics, significant values are in boldface. Study 1 is presented in Chapter 4.

RESEARCH AND ANALYTIC PROCESS

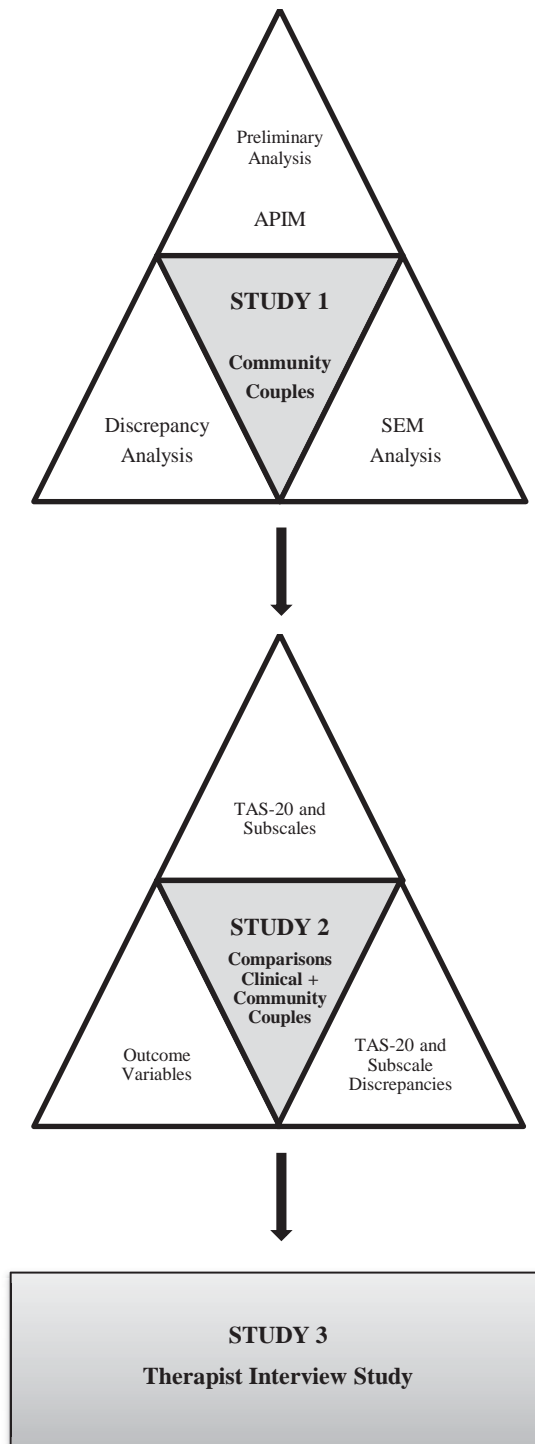


Figure 1. Diagrammatic representation of the overall research and analytic approach, and the components within each study.

CHAPTER FOUR

Study 1: Community Couples

Overview of Previous Research – Alexithymia and Couples’ Relationships

This overview is of the previous research with couples that has included measures of alexithymia and/or empathy, emotional connection, and relationship satisfaction / dissatisfaction; the focus here is on the studies’ samples, measures, and analytical strategies. Although numerous other variables were also included within the previous studies, the overview will be limited to the variables of interest in the present study with community couples. The current study design aimed to provide a more complete and standardised picture of the influences of alexithymia within community couples’ relationships, whilst addressing methodological issues involved with dyadic data.

Previous Studies

To date, there appear to have been seven studies that have examined alexithymia and couples’ relationship quality (Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Frye & Feistman, 2010; Frye-Cox & Hesse, 2013; Humphreys et al., 2009; Yelsma & Marrow, 2003), and four studies that have indirectly tested this association through utilising facets of alexithymia measures to assess ‘emotion skills’ in marriage (Cordova et al., 2005; Dunham, 2008; Mirgain & Cordova, 2007; Wachs & Cordova, 2007). One other study that examined alexithymia and couples’ relationships did not include a measure of relationship quality (Pérusse et al., 2012), and is therefore not included in the review below.

Previous Couple Samples

Although the samples in all of the studies were heterosexual community couples, the natures of those samples varied. Whilst some of the samples consisted of married and/or de facto community couples (Cordova et al., 2005; Dunham, 2008; Eizaguirre, 2002; Foran et al., 2012; Frye-Cox & Hesse, 2013; Mirgain & Cordova, 2007; Wachs & Cordova, 2007; Yelsma & Marrow, 2003), other samples comprised university students and their spouses (Eid & Boucher, 2012), university students and their intimate partners who had

been dating for a minimum of three months (Frye & Feistman, 2010), or university students who were in a couple relationship but not with each other (Humphreys et al., 2009).

Previous Variables Tested

There were also dissimilarities in the variables tested, and the ways in which they were measured. For example, despite all of the studies utilising the alexithymia TAS-20 measure, different aspects of that scale were employed. Variations included use of the total TAS-20 scale and its three factors DIF, DDF, and EOT (Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Humphreys et al., 2009), the total TAS-20 scale (Frye & Feistman, 2010; Frye-Cox & Hesse, 2013), and the DIF, DDF, and EOT factor subscales (Yelsma & Marrow, 2013). In addition, Foran et al. (2012) tested partner-rated alexithymia with the Observer Alexithymia Scale (OAS; Haviland et al., 2000).

In the four emotion skills studies, the DIF and DDF factor subscales were utilised and analysed as separate scales (Cordova et al., 2005; Dunham, 2008; Mirgain & Cordova, 2007; Wachs & Cordova, 2007); however, Mirgain and Cordova (2007), and Wachs and Cordova (2007) also summed and averaged the two subscales to produce a composite variable to measure self-reported emotion skills. Furthermore, Mirgain and Cordova (2007) used a composite DIF and DDF variable to assess observed emotion skills, and they also included DIF and DDF in two broader composite variables that included five emotion skills and 10 emotion skills.

Empathy was included in two studies that utilised the TAS-20 and a marital satisfaction measure (i.e., Mirgain & Cordova, 2007; Wachs & Cordova, 2007). In both of these studies, the empathy instrument was the Interpersonal Reactivity Index (IRI, Davis, 1980). Both Mirgain and Cordova (2007), and Wachs and Cordova (2007), used the IRI subscales of Perspective Taking, Empathic Concern, and Personal Distress separately, and Mirgain and Cordova (2007) also constructed a composite measure whereby scores on the three subscales were averaged to create a global empathy score.

All of the studies included an outcome measure of relationship quality, and again, there were differences in the measures employed. Most studies utilised the Dyadic Adjustment Scale (DAS, Spanier, 1976) to assess relationship satisfaction (Cordova et al., 2005; Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Wachs & Cordova, 2007; Yelsma & Marrow, 2003), and the revised DAS (RDAS; Busby et al., 1995) was used by Dunham

(2008) and by Frye-Cox and Hesse (2013). Humphreys et al. (2009) used the Relationship Assessment Scale (RAS; Hendrick, 1988), and Frye and Feistman (2010) employed the Investment Model Scale (IMS, Rusbult et al., 1998). Mirgain and Cordova (2007) utilised the Global Distress Scale (GDS) of the revised Marital Satisfaction Inventory (MSI-R, Snyder, 1997), which provides a measure of relationship dissatisfaction. Foran et al. (2012) also included the GDS as an additional relationship quality measure.

Previous Analytical Strategies

The previous research examining the alexithymia, empathy, and relationship (dis)satisfaction variables in couples has utilised a range of different analytical strategies. Along with consideration of these strategies, it is important to take into account the issue of nonindependence, or relatedness, of couple data because, in dyadic research, the analysis is often guided by this feature (Kenny et al., 2006). Note that the salient features relating to nonindependent dyadic data are detailed in a later section.

With the research being reviewed here, the issue of dyadic data nonindependence was avoided in a number of ways. For example, by sampling unrelated couple partners (Humphreys et al., 2009), analysing intact husbands' and wives' data separately (Cordova et al., 2005; Dunham, 2008; Eizaguirre, 2002; Foran et al., 2012; Mirgain & Cordova, 2008; Yelsma & Marrow, 2003), and/or by combining the spouses' data to form one group (Humphreys et al., 2009; Wachs & Cordova, 2007). As a result of these strategies, the analyses treated the 'individual' rather than the 'couple' as the unit of analysis.

Three of the studies addressed data relatedness through utilising a strategy that enabled the 'couple' to be the unit of analysis. These studies sampled intact couples, and assessed mutual influences between spouses through use of the Actor-Partner Interdependence Model (APIM); however, this technique was used in various ways. Eid and Boucher (2012) included the APIM within Structural Equation Modeling (SEM) to test actor and partner effects, and to compare the findings from the APIM technique to findings based on simple correlational analyses. Frye and Feistman (2010) used the APIM within path analysis to test actor and partner effects. Frye-Cox and Hesse (2013) utilised the APIM within SEM to test a mediation model to explain the relationship between alexithymia and marital satisfaction.

Summary

The previous research has established a valuable knowledge base regarding alexithymia and its influence on the quality of couples' relationships; however, the variety of measures, methods, and analytical strategies employed in the studies create difficulties in generalising the findings with any degree of certainty. Furthermore, whilst spouses' DIF and DDF have been examined in association with a measure that assesses empathy *provided* to others (i.e., Mirgain & Cordova, 2007; Wachs & Cordova, 2007), this represents only one side of the empathy 'coin'. The current study sought to address the noted issues through the use of careful and rigorous research design, methodology, and analytical strategies, and to extend the investigation by including empathy received and emotional connection variables.

Current Study Design

The study was designed to investigate couples' alexithymia and its influences on empathy provided, empathy received, turn toward, turn away, turn against, positive emotional connection, and relationship dissatisfaction.

In doing so, a substantial sample of non-therapy heterosexual couples from the general community was recruited via randomly selected computer-generated telephone numbers, which were accessed from the electronic residential telephone directory for the metropolitan area in Perth, Western Australia.

The recruitment procedure was structured to gain applicable couples through adhering to strict guidelines that allowed screening of couple partners for safety and suitability whilst maintaining as much of their individual privacy as possible. This was achieved by recruiting each spouse separately, providing information about the study and requirements, and mailing consenting couples a research package that contained a set of research documents for each partner. Each partner's set of completed questionnaires was returned in a separate 'privacy' envelope.

The measures utilised in the study were selected for their reliability and validity, and their ability to tap into the core features of each variable of interest. In particular, rather than utilising either the TAS-20 total scale or a combination of the DIF, DDF, and EOT factors, this research tested both the full scale and all three factors. The exception to using a standardised instrument was the measure examining emotional connection. Because no standardised instrument was able to be located to assess the aspects of couples' Turn Toward, Turn Away, Turn Against, and overall sense of Positive Emotional Connection

(which also captured the ratio of positive to negative interactions), a questionnaire was constructed to measure these features. Although the questionnaires in the research were self-report, the empathy and emotional connection measures allowed for self- and other-reporting on the items.

The data were assessed and analysed according to guidelines required for analytic techniques with dyads whose data are likely to be nonindependent. In taking the nonindependence into account, the dyadic structures of the data files allowed for diversity in the analyses, and the ability to conduct testing with the ‘individual’ as the unit of analysis, and testing with the ‘couple’ as the unit of analysis. This also enabled greater complexity in the investigation of different ways in which alexithymia may exert intrapersonal and interpersonal influences on couple partners’ outcome variables.

The study methodology is described in the next section, which establishes the foundation for the ensuing data analyses and results.

METHODOLOGY

Prior to any data collection, attention was given to the size of the community sample of married/de facto couples, and the inclusion criteria required for participation.

Sample Size

The decision regarding sample size was based on considerations of the data being dyadic, and therefore, likely nonindependent in nature, as well as the range of statistical analyses required for the study (Kenny et al., 2006). In addition, the decision was guided by recommendations by Cohen (1992) for attaining a medium effect size at power of .80 for an alpha of .05. In taking into account these considerations, the aim was to recruit a minimum sample of 150 couples. This number was deemed adequate to provide the power to detect true differences should they occur

Inclusion Criteria for the Study

Participation in the study required heterosexual couples that consisted of both partners being a minimum of 18 years of age, and who each independently agreed to take part in the study. Because couples have generally defined themselves as a stable couple after cohabiting for six months to two years (Bader & Pearson, 1988), partners were required to be currently cohabiting within either a marital or de facto relationship in which they had been living together continuously for a minimum of one year. Because the purpose of this study was to investigate a non-clinical sample, couples were required to *not* be currently undergoing any relationship therapy, and to not have attended any couple therapy within the previous six months. Safety concerns were accounted for by screening partners for an absence of extreme distress and/or domestic violence or fear of partner. To assist with completion of the questionnaires, all participants were required to be competent in English literacy. Couples were excluded from the study if they did not meet these criteria, or if either partner returned incomplete questionnaires.

Participants

Participants in the community sample comprised 170 heterosexual married or de facto couples from the general population in Perth, Western Australia. Recruitment of the sample was based on electronic random selection of telephone numbers from the electronic residential database of the metropolitan area telephone directory.

Data on participant characteristics were gathered through the Sociodemographic section of the questionnaire used in the study to measure global Relationship Dissatisfaction, that is, the MSI-R (Snyder, 1997). The findings are presented below.

Age

The mean age for the total sample was 47.13 years ($SD = 13.62$). For husbands, the mean was 48.42 years ($SD = 13.34$); age range 22 years to 85 years, and for wives, the mean was 45.82 years ($SD = 13.29$); age range 21 years to 82 years. A paired-samples t -test indicated that husbands were significantly older than wives, $t(168) = 6.91, p < .001$. Data were missing for one wife.

Ethnicity

As per the MSI-R (an American measure), ethnicity was categorised and analysed as Asian, Black, Hispanic, Native American, White, and Other. As is shown in Table 1, the majority of participants were White, followed by Asian, Other, and Hispanic. Data were missing for nine husbands and eight wives.

Table 1
Percentages Relating to Ethnicity for Husbands and Wives

Ethnicity	Husbands^a		Wives^b	
	<i>n</i>	Percent	<i>n</i>	Percent
Asian	7	4.3	7	4.3
Black	-	-	-	-
Hispanic	1	0.6	1	0.6
Native American	-	-	-	-
White	147	91.3	146	90.1
Other	6	3.7	8	4.9

Note. ^a $n = 161$. ^b $n = 162$. Dashes indicate that there were no reports from husbands or wives for Black or Native American ethnicity.

Education Level

Education level was categorised and analysed as Primary (formally educated to year seven), Secondary (formally educated to year 12), or Tertiary level (formally educated beyond year 12). As is shown in Table 2, the majority of the sample had attained Secondary level education, followed by Tertiary level and Primary level education. Data were missing for 25 husbands and 18 wives.

Table 2

Percentages of Education Levels for Husbands and Wives

Education Level	Husbands		Wives	
	<i>n</i>	Percent	<i>n</i>	Percent
Primary Level	4	2.8	3	2.0
Secondary Level	74	51.0	80	52.6
Tertiary Level	67	46.2	69	45.4

Note. *n* = 145 husbands and 152 wives.

Employment Status

To elicit employment status, participants responded to a yes/no question of “are you currently employed outside your home?” However, the findings need to be viewed with caution because this question does not take into account employment that is conducted from within a person’s home. Respondents who noted that they carried out their employment from home were included in the employed group. Results indicated that 136 (84%) husbands and 104 (62.7%) wives were employed, and 26 (16%) husbands and 62 (37.3%) wives were unemployed. Data were missing for eight husbands and four wives.

Occupation

Occupation was reported and analysed via nine categories. Although the MSI-R includes only seven categories, the variables of ‘student’ and ‘retired’ were added based on participant notations on their questionnaires. As seen in Table 3, the majority of husbands were in the Executive/Advanced Professional category and the majority of wives were in the Business Manager/Lower Professional category. Data were missing for 21 husbands and 54 wives.

Table 3***Percentages of Occupations for Husbands and Wives***

Occupation	Husbands		Wives	
	<i>n</i>	Percent	<i>n</i>	Percent
Executive/Advanced Professional	34	22.8	14	12.1
Business Manager/Lower Professional	27	18.1	38	32.8
Administrator/Small Bus. Owner	16	10.7	36	31.0
Clerical/Sales/Technical	26	17.4	17	14.7
Skilled Manual	20	13.4	2	1.7
Semi-skilled/Machine Operator	15	10.1	1	0.9
Unskilled	4	2.7	5	4.3
Student	2	1.3	1	0.9
Retired	5	3.4	2	1.7

Note. *n* = 149 husbands and 116 wives.

Work Hours

Of participants who reported work hours, the mean number of hours per week worked by husbands was 43.10 (*SD* = 13.58), and by wives, 29.38 (*SD* = 13.91). Husbands reported significantly more work hours than wives, $t(85) = 5.685$, $p < .001$. Data were missing for 39 husbands and 68 wives.

Relationship Status

The sample comprised 84.1% of couples who were legally married and 15.9% who were living in a de facto relationship. There were no missing data.

Duration of Marriage or De facto Relationship

With the responses to this variable, there was an occasional occurrence of spouses reporting slightly different durations (e.g., one partner would report 18 months and the other partner would report two years). Data were entered as per participants' responses. Overall, the mean relationship duration in years was 19.97 (*SD* = 13.53), with a range of one year to 59 years. Data were missing for eight husbands and four wives.

Number of Previous Marriages / De facto Relationships

The findings on this variable also need to be viewed with caution because of some ambiguity in the questionnaire item, which is phrased as “number of previous marriages”. It is uncertain whether participants’ reports reflected previous marriages alone or if de facto relationships were included. As is shown in Table 4, participant responses indicated that the majority of husbands and wives had not been in a previous marriage. Data were missing for seven husbands and eight wives.

Table 4

Numbers and Percentages of Previous Marriages for Husbands and Wives

Number of Previous Marriages	Husbands		Wives	
	<i>n</i>	Percent	<i>n</i>	Percent
0	109	66.9	108	66.7
1	27	16.6	39	24.1
2	15	9.2	11	6.8
3	5	3.0	4	2.5
4	1	0.6	-	-
5	6	3.7	-	-

Note. *n* = 163 husbands and 162 wives. Dashes indicate that there were no reports from wives for four or five previous marriages.

Additional MSI-R Sociodemographic Data

Within the Sociodemographic section of the MSI-R, there were also questions pertaining to “number of children”, “age of youngest child” and “age of oldest child”. Upon examining participants’ responses to these questions, it was clear that some couples had experienced confusion about what information to provide, and in which section to enter their details. There were frequent differences found between couple partners’ answers to the questions, and accompanying notes that were written on their questionnaires confirmed that response difficulties had occurred. It appeared that some individuals had included children from previous relationships, there were reporting discrepancies between some couple partners on the ages of their children, and there were differences in the sections in which partners with only one child entered the child’s age details. For example,

of those who had only one child, there were instances of one partner reporting the age for that child in the “age of youngest child” section whereas the other partner reported the same information in the “age of oldest child” section. Therefore, due to the high number of discrepancies resulting in unreliable data, these scales were not included in the study. In the next section, the materials utilised in the study are presented.

Summary

The demographic data indicated that the community sample was primarily comprised of couples who averaged mid to late 40s in age, were of white ethnicity, had been educated to secondary level, and were currently employed in higher level professional occupations, working an average of 43 hours (husbands) and 29 (wives) hours per week. The majority of couples were legally married, and the average length of the marital / de facto relationship was approximately 20 years. The majority of couples had not been in a previous cohabiting relationship.

Materials

The materials detailed below were utilised to gather data on participants' Alexithymia, Empathy Provided, Empathy Received, emotional connection variables of Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection, Relationship Dissatisfaction, and demographic information.

Counterbalancing the Questionnaires

Counterbalancing of the questionnaires was considered, whereby measures are presented in a different order to different groups of participants. Informal pilot testing was conducted with two couples (personal friends) in which each couple completed the questionnaires in a different order.

The questionnaires were ordered in the following ways. In set one, one couple responded to questions about their relationship (Relationship Dissatisfaction), their own Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection, and their partner's Turn Toward, Turn Away, Turn Against (emotional connection variables), empathy that they receive from their partner (Empathy Provided), empathy that they provide to their partner (Empathy Received), and their own emotion style (Alexithymia measure).

In the second set, the other couple responded to questions about their own emotion style (Alexithymia), Empathy Provided to partner, Empathy Received from their partner, their own Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection, and their partners' Turn Toward, Turn Away, Turn Against (emotional connection), and about their relationship (Relationship Dissatisfaction). Feedback was then gained from the couples.

The two partners in the couple who completed set one (whereby they were asked to provide information about their relationship, emotional connection, empathy received and provided, and then their emotion style) said "it was too confronting having to answer questions about my relationship so soon", "I felt really uncomfortable with it" (female), and "it didn't make sense to do it this way", "I didn't want to answer some of the questions in the first one" [about the relationship], and "mate, you really need to ease us into all this stuff" (male).

The two partners who completed set two (whereby they were asked to provide information about their emotion style, empathy provided and received, emotional

connection, and then their relationship) said “it was great, I enjoyed it”, “it was a lot to do, but it was interesting” (female), and “there’s a lot of personal stuff going on here, but it was okay to do ... pretty good, really” (male).

Although the pilot testing occurred with only two couples, the most preferable order was clearly stated; this was in line with my own (unspoken) couple experience of completing the measures, and my sense of how they would best be presented. After discussion with the couples about having their questionnaires scored and interpreted, it was decided that it was in everyone’s best interest to destroy the papers. The documents were duly shredded in their presence.

The questionnaires were then packaged in the same manner as set two, which progressed from gaining personal information, information about a partner, interpersonal information, and then information about the relationship. The measures were administered via a ‘Research Package’, and these are presented below in the order in which they appeared in the package (see Appendix A for the complete Research Package received by participants).

Toronto Alexithymia Scale (TAS-20)

Alexithymia was measured utilising the self-report 20-item version of the Toronto Alexithymia Scale (TAS-20; Bagby, Parker et al., 1994; Bagby, Taylor et al., 1994), which has become “the most widely used instrument for assessing alexithymia” (Parker, Taylor, & Bagby, 2003, p. 269). For the purposes of this research, the TAS-20 was assigned the title Emotion Style Questionnaire.

The TAS-20 uses a response format whereby participants rate their responses on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) by circling the corresponding number. The TAS-20 provides a total alexithymia score, and scores for each of the three factors: F1 - difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal (DIF; e.g., “I am often confused about what emotion I am feeling.”); F2 - difficulty describing feelings to others (DDF; e.g., “It is difficult for me to find the right words for my feelings.”); and F3 - externally-oriented thinking (EOT; e.g., “I find examination of my feelings useful in solving personal problems.” - reverse scored item). Although the fourth defining alexithymia feature of “constricted imaginal processes, as evidenced by a paucity of fantasies” (Bagby & Taylor, 1997a, p. 29) is not measured directly by the TAS-20, indirect measurement of imaginal

deficits has been substantiated by evidence of significant negative correlations between the externally oriented thinking factor (F3) and a measure of fantasy (Bagby, Taylor, et al., 1994).

TAS-20 scoring. Items 4, 5, 10, 18, and 19 require reverse scoring (i.e., a rating of 1 becomes 5; 2 = 4; 3 = 3; 4 = 2; and 5 = 1). Once reverse scoring has occurred, the scores for the 20 items are summed to provide a total alexithymia score. Alexithymia is viewed as a dimensional variable, with scores having a possible range of 20 to 100; the higher the score, the higher the level of alexithymia (Bagby, Taylor, et al., 1994; Taylor, 2000). To distinguish between levels of alexithymia, empirically established cut-off scores have been formed with a score ≤ 51 indicating low alexithymia and a score ≥ 61 indicating high alexithymia (Bagby & Taylor, 1997b). Separate factor scores can be calculated by summing items 1, 3, 6, 7, 9, 13, and 14 for DIF; items 2, 4(R), 11, 12, and 17 for DDF; and items 5(R), 8, 10(R), 15, 16, 18(R), 19(R), and 20 for EOT. There are no empirically established cut-off scores for the factors.

TAS-20 reliability and validity. The TAS-20 was standardised using a norm group of 965 first and second year undergraduate students attending a large Canadian University (Bagby, Parker, et al., 1994), as well as with clinical and non-clinical adult populations (Bagby, Taylor, et al., 1994). The scale demonstrated internal consistency (Cronbach's alpha of = .81 for the full scale), as did each of the three factors (DIF = .78, DDF = .75, EOT = .66). The test-retest reliability for the full scale was .77 ($p < 0.01$). Confirmatory cross-validation of the TAS-20 utilising a different adult student sample and a psychiatric sample showed reliability, with Cronbach's alphas of .80 and .83 for the respective samples (Bagby, Parker, et al., 1994).

Convergent validity on the TAS-20 was demonstrated through significant negative correlations with The Psychological Mindedness Scale (PMS) and The Need for Cognition Scale (NCS), plus The NEO Personality Inventory (NEO-PI) dimensions of openness to experience, openness to feelings, and openness to fantasy. The finding of a negative correlation with the openness to fantasy subscale substantiates the TAS-20 as measuring reduced imaginal activity despite the absence of items directly assessing this aspect of the alexithymia construct (Bagby, Taylor, et al., 1994).

Discriminant validity was demonstrated by nonsignificant correlations with the traits of agreeableness, conscientiousness, excitement-seeking, craving excitement and stimulation,

and a disposition of a high sense of energy and vigorous movement (predicted to be unrelated to alexithymia). Concurrent validity was provided by significant correlations of external observers' ratings, and agreement in a clinical population across self-report versus observer ratings of alexithymic characteristics on the Beth Israel Hospital Psychosomatic Questionnaire (BIQ; Bagby, Parker, et al., 1994; Bagby, Taylor, et al., 1994; Sifneos, 1973).

The current study confirmed internal consistency for the TAS-20 total scale, with Cronbach's alpha coefficients of .83 for husbands and .81 for wives. The coefficients for DIF were .83 for husbands and .81 for wives, for DDF were .74 for husbands and .66 for wives, and for EOT were .61 for husbands and .63 for wives.

The TAS-20 is copyrighted, and was therefore purchased from the test developers (that is, G. J. Taylor). Purchase of the TAS-20 allows multiple copies to be produced for research purposes. Because of the copyright, permission was given for two representative items from each of the three factors to be included as an appendix (G. J. Taylor, personal communication, November 02, 2012). See Appendix A for the representative TAS-20 items.

Barrett-Lennard Relationship Inventory (BLRI)

In the current study, associations between alexithymia and empathy were examined by testing both aspects of empathy; that is, perceptions of empathy *provided* to a partner and also perceptions of empathy *received* from a partner. To do so required the use of a reliable and valid instrument that could measure the two aspects; this was found to be the case with the BLRI.

The original BLRI was developed in the 1950s by Godfrey Barrett-Lennard (Barrett-Lennard, 1962), who designed it to measure the conditions that Carl Rogers deemed necessary for successful client change to occur within the therapeutic relationship (e.g., Rogers 1947; 1949; 1956; 1957). As such, the BLRI was constructed to assess empathic understanding, level of regard, congruence, unconditionality of regard, and willingness to be known (which was later omitted on the recommendation of the test developer). Over time, the revised 64-item BLRI has been adapted, and it is now available in various versions for use with a range of different kinds of relationships (Barrett-Lennard, 1962; 1986).

The BLRI is available in two parallel forms: (1) the self-report Myself to Other (MO) form, which measures an individual's perceptions of how he/she responds to another person, and (2) the participant/observer-rated BLRI Other to Self (OS) form, which measures the same individual's perceptions of how the other person responds toward them. Although all responses are self-reported, in contrast with traditional self-report or observer/judge measures, the BLRI subscales do not require respondents to rate their own or another's *level* of the variable. Rather, individuals rate their own perceptions of what they provide to another person and what they receive from the other person (Barrett-Lennard, 1981). Pertinent to assessment within couples' relationships, each partner completes both the MO and OS forms of the BLRI.

Both of the BLRI forms (i.e., MO and OS) contain four 16-item subscales. Ideally, each of the 64-item measures would be utilised in its entirety, and it is not recommended that any one of the subscales be administered singly (G. T. Barrett-Lennard, personal communication, October 7, 2001). However, in considering the numbers of measures in the current study, and because the dimensions of empathy provided and empathy received were of primary interest, the decision was made to reduce the response burden on participants by eliminating the MO and OS unconditionality subscales. The decision regarding elimination of these subscales was guided by consultation with the test developer (G. T. Barrett-Lennard, personal communication, October 7, 2001), and by Ganley (1989) who stated that "empathy, regard, and congruence are believed to be among the most important indicators of the quality of human relationships" (p. 107). Further support in the decision-making process was provided by Wampler and Powell (1982) who proposed that the unconditionality subscale be excluded from the BLRI because factor analytic studies have shown it to be the least robust of the four subscales, and because it generalises least well from use with therapy relationships to other intimate relationships. Furthermore, Wampler and Powell suggested that the unconditionality subscale be included only when it is of specific interest to the researcher.

Hence, the amended BLRI MO and OS instruments each contained 48 items that measured empathic understanding, level of regard, and congruence. Although the overall length of the instruments was reduced, the remaining subscales each retained their full complement of 16 items. Definitions provided by Barrett-Lennard (1962) posit empathic understanding as "the extent to which one person is conscious of the immediate awareness of another" (p. 3). Level of regard is "the composite 'loading' of all the distinguishable

feeling reactions of one person toward another, positive and negative, on a single abstract dimension” (p. 4). Congruence is “the degree to which one person is functionally integrated ... with another, such that there is absence of conflict or inconsistency between his total experience, his awareness, and his overt communication” (p. 4).

With regard to the BLRI MO empathic understanding subscale used in this research, the items capture the experience of the person *providing* the empathy (e.g., “I can tell what ___ means, even when he/she has difficulty saying it” (Item 23, positively scored). The BLRI OS scale has a parallel set of 16 items, which captures the same individual’s experience of empathy *received* from the other person (e.g., “___ realises what I mean even when I have difficulty saying it” (Item 23, positively scored).

The instruments employ a six-point anchored scale, ranging from - 3 to + 3, with responses designating how true respondents feel the statement is. The options for positive responding are + 3 = Yes(!), I strongly feel that it is true, + 2 = Yes, I feel it is true, and + 1 (Yes) I feel that it is probably true, or more true than untrue. The options for negative responding are - 3 = No(!), I strongly feel that it is not true, - 2 = No, I feel it is not true, and - 1 = (No) I feel that it is probably untrue, or more untrue than true. The empathy subscales have eight positively worded items and eight negatively worded items. In the 48-item MO and OS versions that were created, the positively worded empathy items are 2, 8, 14, 23, 26, 32, 41, and 47. The negatively worded empathy items are 5, 11, 17, 20, 29, 35, 38, and 44.

BLRI scoring. Due to the negatively worded items having an opposite counterbalanced directional significance to those that are positively worded, the negatively worded items are reverse coded (Barrett-Lennard, 1986). This transforms the negative item subtotal to reflect the same direction as the subtotal for the positive items. Addition of the positive and negative item subtotals yields the subscale score. Because the BLRI subscales are dimensional in nature, each subscale has a range of - 48 to + 48. Scoring guidelines indicate that each of the subscales may result in four levels of the particular feature being measured; that is, scores of ≤ 16 suggest a low level, 17 to 24 a moderate / average level, 25 to 32 a substantial level, and ≥ 33 a high level.

BLRI reliability and validity. Barrett-Lennard (1986) stated that official norms for the BLRI do not exist due to the number of adaptations and revisions of the 64-item instrument, together with further variations on methods of using the scales, and the

different kinds of interpersonal relationships studied with the instruments. Such variations have culminated in limitations in direct comparison, which would be necessary for data to be organised into a meaningful normative form. However, up to 1990, it was reported that the various forms of the BLRI have been employed in over 500 studies investigating a range of relationships (Touliatos, Perlmutter, & Straus, 1990).

The reliability from split-half analysis of the original 64-item MO and OS scales was established with client and therapist data, and test-retest correlations with a sample of friend and family relationships. Each analysis and every scale yielded reliability coefficients above .80. In each sample, individual scale coefficients were .85 or higher (Barrett-Lennard, 1986). Subsequent revision of the scale has led to reliability evaluation by independent investigators, with Gurman (1977) reviewing the internal and test-retest reliability of the BLRI scales based on data gathered from a range of contexts and researchers. The mean internal reliability coefficients for the subscales were .84 for empathy, .91 for regard, .88 for congruence, and .74 for unconditionality. Test-retest reliabilities, based on 10 samples, and test-retest intervals of 12 days and 12 months, provided 45 scale and total score coefficients ranging from .61 to .95. The mean test-retest reliabilities were .83 for empathy, .83 for regard, .85 for congruence, and .80 for unconditionality (Gurman, 1977, p. 508). Thus the BLRI scales are considered reliable instruments for use in dyadic relationships.

Evidence for the validity of the BLRI stems from the original scale development in the 1950s, and subsequent revisions and adaptations that have occurred over time. Content validity was provided by the scale's developmental procedures in terms of careful attention to theory and item assessment by a number of independent judges. Factor analytic studies have confirmed the factor structure of the BLRI (Gurman, 1977). Predictive construct validity has been found in studies investigating the association between the BLRI and therapeutic outcomes, and other behavioural, relational, and educational parameters (Barrett-Lennard, 1986). Convergent validity has been confirmed through research findings of high correlations ($\geq .70$) between the BLRI and commonly used measures of marital satisfaction (Wampler & Powell, 1982). Furthermore, a number of researchers have reported that the BLRI MO and OS measures are sound in their ability to discriminate between distressed and non-distressed couples; for example, between couples where both partners were having counselling (not necessarily for marital issues) and a non-counselling control group (Quick & Jacob, 1973), and between well-adjusted and less well-adjusted

couples (Gurman, 1975). However, Wampler and Powell (1982) reported on findings that the OS forms were more consistent than the MO forms in discriminating between the samples.

The current study confirmed internal consistency for the BLRI subscales. Cronbach's alpha coefficients showed empathic understanding MO (Empathy Provided) to be .75 for husbands and .76 for wives, and empathic understanding OS (Empathy Received) to be .88 for husbands and .90 for wives. Included for completeness, level of regard MO coefficients were .86 for husbands and .85 for wives, and level of regard OS coefficients were .90 for husbands and .92 for wives. Congruence MO coefficients were .89 for husbands and .88 for wives, and congruence OS coefficients were .89 for husbands and .93 for wives.

The BLRI measure is copyrighted and the property of the author, Dr. G. T. Barrett-Lennard. Dr. Barrett-Lennard granted permission for use of the scales, and provided a master copy of the measures. A nominal fee was paid for permission to produce 1500 copies. Due to the copyright, permission was been given by the author to include representative items as an appendix (Dr. G. Barrett-Lennard, personal communication, April 28, 2013). See Appendix A for the representative items for the BLRI scales.

General Relationship Questionnaire (GRQ)

In the design phase of this project, I was unable to locate a formal instrument with which to assess Gottman's (1998) notion of emotional connection, and therefore constructed an eight-item measure to capture the concept. To reduce anticipatory response bias by participants, the measure was assigned the generic title of General Relationship Questionnaire (GRQ).

As noted earlier, Gottman (1998) proposed the Bank Account Model (BAM) to explain how couples' emotional connectedness is influenced by the communication patterns they utilise, which result from the ratio of positive to negative nonconflict interactions (the optimum being five positive interactions to every one negative interaction). The positive to negative interaction ratio influences, and is influenced by, partners responding to bids for closeness by *turning toward*, *turning away*, or *turning against* each other. Whilst Gottman (1999, p. 381) has a measure that assesses individuals' turning toward and turning away, the aspects of turning against, positive to negative interactions, and sense of emotional connection are not included.

Given the emotion-related difficulties experienced by those with high alexithymia, I considered it important to examine whether couples' emotional connection indices are associated with alexithymia and their alexithymia-related differences (i.e., discrepancies), and if they mediate the relationship between alexithymia and relationship dissatisfaction.

In aligning the GRQ with Gottman's (1998) model, the first six items of the scale reflect partners' patterns of turning toward, turning away, and turning against each other. These six statements prompt a similar kind of responding to that of the BLRI described above in that participants are asked to respond to the same statement from the perspectives of what they provide to their partners (myself to other; MO) and what their partners provide to them (other to self; OS). The seventh statement reflects individuals' perceptions of the positive to negative interactions within the relationship, and the eighth statement reflects individuals' sense of emotional connection with their partners.

The response format was aligned with the TAS-20 measure, in which participants are asked to answer on a five-point likert type scale that ranges from "strongly disagree" to "strongly agree". The scale items are presented below.

1. "Throughout our everyday life, I generally respond to my partner in a positive and interested way." (Turn Toward myself to other – MO.)
2. "Throughout our everyday life, my partner generally responds to me in a positive and interested way." (Turn Toward other to self – OS.)
3. "I usually respond to my partner by ignoring her/him or acting disinterested or preoccupied." (Turn Away myself to other – MO.)
4. "My partner usually responds to me by ignoring me or acting disinterested or preoccupied." (Turn Away other to self – OS.)
5. "In general, I respond to my partner in a critical and argumentative way." (Turn Against myself to other – MO.)
6. "In general, my partner responds to me in a critical and argumentative way." (Turn Against other to self – OS.)
7. "Overall, my partner and I have more positive than negative exchanges with each other."
8. "I feel emotionally connected in a positive way to my partner."

Given the statistical difficulty of analysing single items, the decision was made to subject the GRQ to factor analysis to test the factor structure of the measure.

Analysing the Factor Structure of the 8-item GRQ

The GRQ factor structure was tested by conducting both an exploratory factor analysis and a confirmatory factor analysis. Exploratory factor analysis is used to group and consolidate correlated variables in order to generate hypotheses about the underlying processes. Confirmatory factor analysis is used to test hypotheses about the factor structures that might underlie a set of items. When a researcher is reluctant to formulate such hypotheses (as was the case here), then it is prudent to adopt the following two-step analytical procedure (Tabachnick & Fidell, 1996).

- Step 1:* Conduct an initial *exploratory* factor analysis (EFA) in order to ‘shed some light’ on what the factor structure might be.
- Step 2:* Conduct a *confirmatory* factor analysis (CFA) on a *different sample* of participants to test the reliability of the Step 1 solution.

For this procedure, the husbands’ data were analysed at Step 1 and the wives’ data were analysed at Step 2 (the same pattern of results was observed when the order of the analyses was reversed). Although the two data sets were related, there was no guarantee that husbands’ responses would be driven by the same latent constructs as wives’ responses.

Step 1: Exploratory Factor Analysis (EFA)

An EFA (using SPSS version 19) was conducted on the male data. Principal axis factoring (PAF) was used to extract factors, and the promax procedure was used to rotate the extracted factors to simple structure. Two factors had eigenvalues greater than one and were therefore retained in the final rotated solution (Latin, Carroll, & Green, 2003). The 2-factor solution explained less than 70% of the variability among the item responses (Latin et al., 2003) and was difficult to interpret. A forced 3-factor solution explained a more respectable 76% of the variance, but was also difficult to interpret. A forced 4-factor solution explained 85% of the variance and produced a highly plausible solution. The pattern matrix for the rotated factor solution is presented in Table 5.

Table 5***Pattern Matrix for the Rotated Factor Solution of the Husbands' GRQ Data***

Item	Factor			
	1	2	3	4
1 Turn Toward MO Male			.981	
2 Turn Toward OS Male			.760	
3 Turn Away MO Male				.750
4 Turn Away OS Male				.990
5 Turn Against MO Male		.987		
6 Turn Against OS Male		.896		
7 More Positive than Negative Interactions Male	.855			
8 Feel Emotionally Connected Male	.896			

Note. $N = 170$. MO = myself to other. OS = other to self.

Step 2: Confirmatory Factor Analysis (CFA)

A CFA (using LISREL version 8.80; Jöreskog & Sörbom, 2003) was conducted to test whether the 4-factor EFA solution that was derived from the male data provided a good fit for the female data. Several fit indices, each assessing fit from a slightly different perspective, were used. These were the normed fit index (NFI: values $> .9$ indicate an acceptable fit; Bentler, 1990; Bollen, 1989; Hu & Bentler, 1999); the comparative fit index (CFI: values $> .9$ indicate an acceptable fit; Bentler, 1990, 1995), and the standardised root mean square residual (SRMR: values $< .1$ indicate an acceptable fit; Benet-Martinez & Karakitapoglu-Aygun, 2003; Hooper, Coughlan, & Mullen, 2008; Hu & Bentler, 1999). Corresponding values for the present CFA were $NFI = .901$, $CFI = .902$, and $RMR = .039$.

Findings from the GRQ factor analyses indicated that all indices concurred that the 4-factor structure derived from the male data provided a good fit for the female data. Therefore, the three factors of turn toward (items one and two), turn away (items three and four), and turn against (items five and six) reflect the amalgamation of husbands' and wives' perceptions of how they respond to their partner (MO) and how their partner responds to them (OS). Factor four, positive emotional connection (items seven and eight), reflects the amalgamation of individuals' perceptions of the level of positive to negative

interactions within the relationship and the degree of positive emotional connection felt toward their partners.

GRQ scoring. For ease of interpretation, each GRQ item was scored in a positive direction with no reverse scoring taking place. Higher scores indicate a higher degree of the particular dimension. Because the statements measure specific aspects that are related to emotional connection, it was not appropriate to sum the scores to give a total emotional connection score. Instead, the two items in each factor were summed and averaged to produce the factor score.

GRQ reliability and validity. The internal consistency was assessed for each of the four factors, and for husbands and wives separately. The rationale for testing husbands and wives separately was that there was no reason to believe that the findings would be the same for both genders. In considering the number of items in the scale, guidance was provided by Loewenthal (2001), who suggested that a Cronbach's alpha of .60 is considered adequate for scales with less than 10 items.

Internal consistency was demonstrated for husbands' Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection (Cronbach's alpha coefficients were .86, .80, .84, and .84 respectively), and for wives' Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection (Cronbach's alpha coefficients were .80, .71, .83, and .80 respectively).

In terms of validity, the GRQ is directly associated with the BAM theory (Gottman, 1998), and therefore, has sound construct validity. Also, because the measure is not intended to be deceptive in nature, it has good face validity.

Convergent and discriminant validity were assessed via subscales of measures that gathered data for the current study yet were not intended to be part of the research. Convergent validity was assessed with the BLRI MO and OS Level of Regard subscales (Barrett-Lennard, 1986). As noted above, the two measures of regard provided and regard received capture the positive and negative reactions of one person toward another (Barrett-Lennard, 1962, p. 4). It was theorised that these measures would have the ability to test the positive and negative convergence of the GRQ factors. As anticipated, findings for both husbands and wives indicated significant positive correlations between regard (provided and received) and turn toward, and regard (provided and received) and positive emotional connection. Significant negative correlations were found between regard (provided and

received) and turn away, and between regard (provided and received) and turn against (see Table 6 for convergent validity data for husbands and wives).

Table 6
Convergent Validity Correlations for Husbands and Wives

Variable	Regard Provided	Regard Received
	<i>r</i>	<i>r</i>
H Turn Toward	.606	.633
H Turn Away	-.579	-.564
H Turn Against	-.417	-.481
H Positive Emotional Connection	.665	.696
W Turn Toward	.551	.618
W Turn Away	-.588	-.588
W Turn Against	-.466	-.500
W Positive Emotional Connection	.575	.673

Note. *N* = 170 husbands and 170 wives. H denotes husbands' coefficients and W denotes wives' coefficients. PEC = positive emotional connection. All tests are two-tailed. All *r* values were significantly different to 0, with *p* < .001.

Discriminant validity was assessed with the Role Orientation scale of the Marital Satisfaction Inventory, Revised (MSI-R; Snyder, 1997). The Role Orientation (ROR) scale measures the extent to which the respondent reports a traditional versus a non-traditional orientation toward marital/relationship and parental gender roles (p. 24), and it measures "role values or preferences rather than actual role behaviors" (p. 25). The scale was chosen based on empirical investigation by Snyder (1997, p. 81), which indicated that "the ROR scale is relatively uncorrelated with other MSI-R profile scales (all correlations \leq .10), reflecting its status as a measure of partners' role attitudes examined separately from any distress in their relationship". Thus, it appeared to be a scale that was relatively uncontaminated in its ability to test the discriminant validity of the four GRQ factors. Discriminant validity was demonstrated by findings for husbands and wives of nonsignificant correlations between the ROR scale and turn toward, ROR and turn away, ROR and turn against, and between ROR and positive emotional connection (see Table 7

for the discriminant validity correlations for husbands and wives). See Appendix A for the GRQ measure.

Table 7

Discriminant Validity Correlations for Husbands and Wives

Variable	Role Orientation Scale	
	<i>r</i>	<i>p</i>
H Turn Toward	.074	.337
H Turn Away	-.063	.414
H Turn Against	.007	.923
H Positive Emotional Connection	.114	.140
W Turn Toward	-.005	.944
W Turn Away	.105	.174
W Turn Against	.076	.325
W Positive Emotional Connection	-.016	.839

Note. *N* = 170 husbands and 170 wives. H denotes husbands' coefficients and W denotes wives' coefficients. PEC = positive emotional connection. All tests are two-tailed.

Marital Satisfaction Inventory, Revised (MSI-R)

Marital/relationship satisfaction was measured by the Global Distress Scale within the MSI-R, which is a revised and restandardised version of the longstanding Marital Satisfaction Inventory (MSI; Snyder, 1997). This has been claimed to be the “strongest marital satisfaction measure available in psychometric terms” (Fowers, 1990, p. 372). The MSI-R assesses the overall extent of satisfaction/dissatisfaction within a relationship, which is primarily based on scores on the Global Distress Scale, as well as distress levels reported across the other 10 domains (see below for specific scale domains). Generally, higher scale scores indicate greater distress (Snyder, 1997).

The MSI-R comprises 150 True-False (T/F) items (129 if the couple has no children), and takes approximately 25 minutes to complete. The items in the revised version now refer to ‘partner’ and ‘relationship’ rather than ‘spouse’ and ‘marriage’; thus, the test is appropriate for use with adults in both traditional and non-traditional couple relationships.

The instrument includes a total of 13 scales; 12 scales that are non-overlapping in item content and include a validity scale, plus one additional validity scale (Snyder, 1997).

Snyder (1997, pp. 20-26) indicated that the Global Distress Scale (GDS) measures overall dissatisfaction with the relationship, which is considered the best single indicator of global relationship affect (e.g., Item 16 “There are many things about our relationship that please me” negatively coded False; Item 90 “I have important needs in our relationship that are not being met” – coded True). In addition, the MSI-R includes a further 10 scales, which measure the following dimensions: Affective Communication (AFC) – dissatisfaction with the amount of affection and understanding expressed by a partner; Problem-Solving Communication (PSC) – general ineffectiveness in resolving differences, and overt discord rather than underlying feelings of estrangement; Aggression (AGG) – level of intimidation and physical aggression experienced by respondents from their partners; Time Together (TTO) – couples’ companionship in terms of time spent together in leisure activity; Disagreement About Finances (FIN) – relationship discord related to the management of finances; Sexual Dissatisfaction (SEX) – level of discontent with the frequency and quality of intercourse and other sexual activity; Role Orientation (ROR) – the extent to which the respondent reports a traditional versus a non-traditional orientation toward marital/relationship and parental gender roles; Family History of Distress (FAM) – disruption of relationships with the respondent’s family of origin; Dissatisfaction With Children (DSC) – concerns about the emotional and behavioral adjustment of their children, quality of the parent-child relationship, and negative impact of child rearing demands; and Conflict Over Child Rearing (CCR) – extent of conflict between partners regarding child rearing practices. The 12th scale, a validity scale termed Conventionalization (CNV), assesses a tendency to distort the appraisal of the relationship in a socially desirable direction, and to respond in an unrealistically positive manner. The additional validity scale, termed Inconsistency (INC), identifies random, careless, and/or non-reflective responding, as measured via “response congruence across pairs of items drawn from the other scales” (Snyder, 1997, p. 7).

MSI-R scoring. The MSI-R may be hand-scored or forwarded to the WPS TEST REPORT Service in California, USA for computer scoring. The benefit of the computer scored tests is that they are returned with a complete profile report for the individual or the

couple. However, in the current study, the cost was prohibitive, and I therefore scored the measures by hand.

Prior to scoring, inspection of responses occurred to ensure that participants had marked a single response for each item. This was necessary because the test is considered invalid and unable to be scored if there are rigidly alternating ‘true’ and ‘false’ responses, the same responses are marked for all items, and/or if there are 13 or more missing or double-marked responses to the first 129 items. Additionally, the DSC or CCR scales should not be scored if participants with children have marked fewer than 10 responses to items 130 through to 150.

Once the tests were checked and deemed appropriate to score, the 340 completed MSI-R measures were hand scored from participant responses that had been entered on the MSI-R AutoScore™ Answer Forms, which automatically transfer through carbon paper to the inner scoring page.

Raw scores for the 12 scales are obtained by locating the beginning of the labelled scale line and tallying the marked responses as the line is followed from beginning to end. The raw score for the INC validity scale is determined by the total number of inconsistent responses for item pairs. To enable meaningful score comparisons, raw scores are converted to normalised *T*-scores (mean of approximately 50, and a standard deviation of approximately 10) by utilising score correspondence tables provided in Appendix B of the MSI-R manual (Snyder, 1997).

According to Snyder (1997, pp. 20-26), *T*-score ranges include low, moderate, and high levels, with the GDS, AFC, PSC, AGG, TTO, FIN, SEX, ROR, DSC, and CCR scale *T*-score levels spanning < 50, 50-60, and > 60 respectively. The CNV and FAM subscale *T*-score levels range from < 45, 45-55, and > 55, and the INC subscale *T*-score level ranges from < 55, 55-65, and > 65. Lower scores reflect higher levels of satisfaction for the GDS, AFC, PSC, AGG, TTO, FIN, SEX, FAM, DSC, and CCR subscales. The lower the score for the ROR subscale, the more traditional is the relationship. Low scores on the INC subscale suggest response distortion in a negative direction, and high scores suggest random and careless responding.

MSI-R reliability and validity. The MSI-R was standardised across 200 geographically diverse United States sites on a sample of 2,040 persons (1,020 intact couples) who formed a demographically representative sample in terms of age range, ethnicity, educational level

socioeconomic status, and occupation. The MSI-R has shown internal consistency (Cronbach's alpha coefficients ranging from .93 on the GDS to .70 on the DSC), with a mean coefficient of .82. Test-retest reliability has been assessed by testing twice a sample of 105 couples (210 individuals) from the general population, separated by a six-week time interval. The test retest coefficients ranged from .74 (GDS, FIN, CCR) to .88 (ROR), with a mean coefficient of .79 (Snyder, 1997).

Evidence for the validity of the MSI-R has been derived from using the new MRI-R scoring criteria to reanalyse earlier studies that validated the earlier MSI scales, in addition to numerous studies conducted with a wide range of clinical and general community populations. The associated studies have demonstrated the instrument's ability to distinguish between clinically distressed couples and non-distressed couples, and to predict couples' responses to treatment. Convergent and discriminant validity have been established through correlations demonstrating each of the scale's relatedness and divergence with a broad range of affective and behavioural components of relationship interaction, and with conceptually related measures (Snyder, 1997).

Testing of the MRI-R scales' internal consistency for the current study was conducted by including only the clinical scales of GDS, AFC, PSC, AGG, TTO, FIN, SEX, ROR, and FAM, and by computing a Cronbach's alpha coefficient across the totals for the nine scales; this was computed separately for males and females. Such abridged testing was necessary because only the scale totals (rather than the individual items) were available for computation and because the DSC and CCR scales were not included in the data set due to an observed unreliable response pattern. Therefore, findings showed Cronbach's alpha coefficients to be .80 for husbands, and .80 for wives.

Demographic Data

Participants' demographic data were gained through the cover page that is attached to the MSI-R instrument. The MSI-R cover page allows for reporting of anonymous demographic information concerning individuals' gender, years of completed education, current employment, hours worked, present occupation, ethnicity, duration of current marriage or relationship, number of previous marriages or significant relationships, number of children, age of oldest or only child, and age of youngest child. All questions are optional except gender which has an indication of being 'required'.

The MSI-R is a copyrighted and published instrument, and was purchased from Western Psychological Services (WPS), who do not permit the measure to be disseminated in its entirety. However, based on the recommendation and permission from WPS, five representative items from the Global Distress scale (which was utilised in this research as the measure of Relationship Dissatisfaction) have been included in Appendix A that contains the Research Package.

Additional Materials

As can be seen in the appended Research Package, additional materials included instruction sheets that preceded each questionnaire section. These served the purposes of separating the measures into small manageable parts, and of preparing participants for the focus of the next set of questions that they would be asked to complete. Also included was a list of available counselling services that could be accessed if the process of answering the questions had uncovered issues that couples wished to address therapeutically. When sending the feedback summaries, an updated list of additional services was also supplied. These lists contained details of therapeutic services that participated in Study 2, which is detailed in the next chapter. In that chapter, features of the services will be described and discussed, and in the interest of maintaining anonymity, the lists will not be appended. Also included in each of the research packages were two pens for partners to use when completing the questionnaires.

In the next section, the procedure for recruiting the community couples is presented.

Procedure

Sampling Method

To obtain a Community sample that was as representative as possible of non-therapy couples, the sampling method utilised was the electronic residential telephone directory for the metropolitan area in Perth, Western Australia. From the electronic database, a computer generated a list of randomly selected telephone numbers. The generated list formed the basis of the couples to be recruited for the study.

The tasks of accessing the electronic telephone directory, formulating the random sample of telephone numbers, and recruiting the participants were conducted by personnel at the University of Western Australia Survey Research Centre (UWA SRC), which is an establishment that specialises in survey research data collection.

The aim was to gain the sample by recruiting each partner in the couple at the time of the initial telephone call, thereby achieving the two processes at one point of contact; however, this was not always possible due to the absence of one partner and the need to place return telephone calls to speak to that person. The two processes are described separately in the following sections.

Sample Selection

Throughout the sample selection and recruitment process, 2532 telephone numbers were called. Of the residences called, contact was unobtainable for 688 numbers (464 were disconnected, five were consistently engaged, 187 were consistently unanswered, and 32 were numbers for facsimiles or modems). Also, despite accessing numbers from the residential section of the telephone directory, 19 were businesses rather than households.

Within the telephone calls that were answered, 659 households did not contain couples. Of the households containing couples, participation was declined by 725 contacts (this included 709 couples, 12 primary respondents, and four partners). Furthermore, 50 couples declined to take part in the study due to one partner being too incapacitated to complete the questionnaires.

For 141 couples, although a positive response to participation was gained, they could not be accepted into the study due to failing to meet the inclusion criteria (21 couples had not lived together continuously for a minimum of one year; two couples did not consist of both partners being 18 years of age or older; three couples were not in heterosexual relationships; eight couples had received relationship counselling within the last six

months; 58 couples contained at least one partner who had difficulty with literacy in the English language; and for 49 couples, one partner would be absent during the survey period.

As a result of the selection process, 250 couples fulfilled all of the inclusion criteria, consented to take part in the study, and were then mailed research packages. Of those 250 couples, data from 80 couples could not be included for analysis. Within these 80 couples, five couples were excluded due to incomplete questionnaire responding; one partner did not complete the Barrett-Lennard Relationship Inventory (BLRI; Barrett-Lennard, 1986) and four partners did not return acceptably completed levels of the Marital Satisfaction Inventory-Revised (MSI-R; Snyder, 1997). Furthermore, 19 couples returned their total research packages and withdrew from the study, and 56 couples did not return any documentation. Therefore, the process of sample selection and recruitment yielded a total sample of 170 married/de facto couples that were included in the study for analysis. Based on the 250 eligible couples, the final sample of 170 couples represents a 68% response rate of complete data sets. Figure 2 outlines the couples' response rates throughout the sample selection and recruitment process.

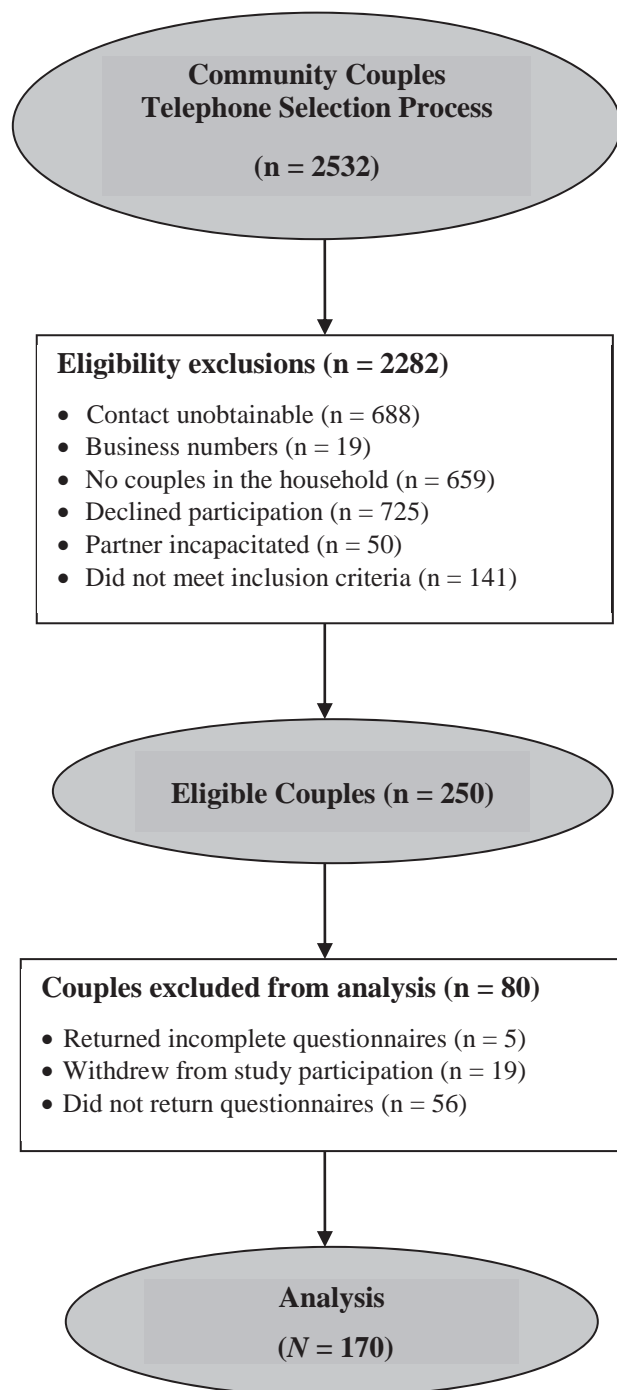


Figure 2. Flow diagram of Community couples' response rates throughout the sample selection and recruitment process.

Sample Recruitment Process

In preparing for recruitment of the Community sample of couples, a step-by-step procedural recruitment script was designed for use by the UWA SRC personnel. The fundamental design of the recruitment was that a UWA SRC officer would speak to each couple partner separately, and that both partners needed to agree independently to take part in the study. This was to assist in gaining informed consent from all participants, a positive willingness to take part in the study, and a resultant benefit of partners providing carefully considered responses to the questionnaires. Furthermore, it was considered important to reduce, as much as possible, any sense of coercion between partners to participate, and to ensure that each person was fully informed of the commitment required in completing the questionnaires. The first phase in the process was to recruit the partner who initially answered the telephone call (Partner 1), and the next phase was to then speak to the other partner and recruit that person (Partner 2).

The procedure was conducted in this way based on evidence indicating that when recruiting participants for survey research, an initial personal telephone invitation to take part in the study, which is followed by mailing the research material for people to complete in privacy, has the potential to increase the probability of gaining access to participants, increasing response rates, and decreasing social desirability bias (de Vaus, 1995; Streiner & Norman, 1995).

In addition, as recommended by the UWA SRC, the contact calls were made between the hours of 6.00 p.m. and 8.00 p.m., which was a time frame considered optimal in reaching as many couple partners as possible, and in reducing the number of return telephone calls that would be required to speak with initially absent partners.

Because it was necessary to speak with both partners separately about participation in the study, the recruitment process for each couple involved two distinct yet identical phases. Due to the UWA SRC organisational privacy policy, the recruitment script cannot be appended; however, the general process is detailed in the next section.

Phase One of the Recruitment Process

Using the computer generated list of telephone numbers, the first recruitment phase began with a recruiter dialling a telephone number. After establishing contact with an adult in the household, the recruiter provided the respondent with a personal and organisational introduction, basic information about the study, and the general purpose of

the research. It was explained that both partners would be asked to complete some questionnaires and general details, and that a benefit to taking part would be the opportunity for each partner to receive a summary report of her or his own answers to the questionnaires.

If, at this point, or any other time in the process, either partner indicated that s/he was not interested in taking part in the study, the person was thanked and the telephone call was ended.

If a positive response to the introductory information was gained from the person answering the telephone call (Partner 1), the recruiter explained the need to ask some questions to check whether the person was suitable for the study. Partner 1 was then assessed on the inclusion criteria (which have been detailed above).

If any of Partner 1's answers to the inclusion criteria questions indicated a lack of suitability for the study, an applicable explanation was provided (for example, if the person answering the call stated that s/he was under 18 years of age, the recruiter responded with "thank you for your help, but we are only recruiting couples where both partners are over 18 years of age").

If assessment of the inclusion criteria indicated that the person was eligible for participation, the recruiter repeated the general information about the study, and informed Partner 1 that both partners would be asked to complete a consent form, five questionnaires, and some general details. It was explained that each partner would have a separate 'privacy envelope' in which to seal their own paperwork, and that both of these envelopes would then be returned to the UWA SRC in one large prepaid envelope. The recruiter then informed the person that it was necessary for both partners to agree separately to take part in the study. An explanation was provided of the participation requirements, time commitment of 45 to 60 minutes, and the freedom to withdraw from the study at any time. Partner 1 was also advised of the confidentiality of any information provided by him/her and was assured that the information would be used in a way that guaranteed anonymity. Partner 1 was then asked whether s/he would like to take part in the study. An affirmative response to this question, plus the person providing the recruiter with name and address details, served to confirm verbal consent to participation.

Once Partner 1's mailing details were gained, the recruiter then asked to speak to the other partner (Partner 2). If Partner 2 was not available at the time, the recruiter asked Partner 1 to nominate a best time to telephone that person. If Partner 1 could not provide a

suitable time to telephone, s/he was asked to tell Partner 2 about the study and the future return telephone call to ensure that the contact was expected.

At this point in the interview, Partner 1 was thanked, and the recruiter again provided his/her name, the name of the organisation (UWA SRC), as well as a telephone number for Partner 1 to call if any further information about the study was required. Following the completion of this interview, the recruiter initiated phase two of the recruitment process.

Phase Two of the Recruitment Process

The second phase in the recruitment process involved speaking to Partner 2 within the initial telephone call, or during a future time. Once contact had been made with Partner 2, the identical recruitment procedure that had taken place with Partner 1 was repeated.

If Partner 2 declined participation in the study, the recruiter reiterated that the study required couples, and that participation was based on both partners agreeing to take part. If Partner 2 again declined to participate, s/he was thanked politely for taking the time to speak to the recruiter. If Partner 2 consented to participation, his/her contact details were recorded and the interview ended in the same manner as with Partner 1. Figure 3 illustrates the couples' recruitment process phases.

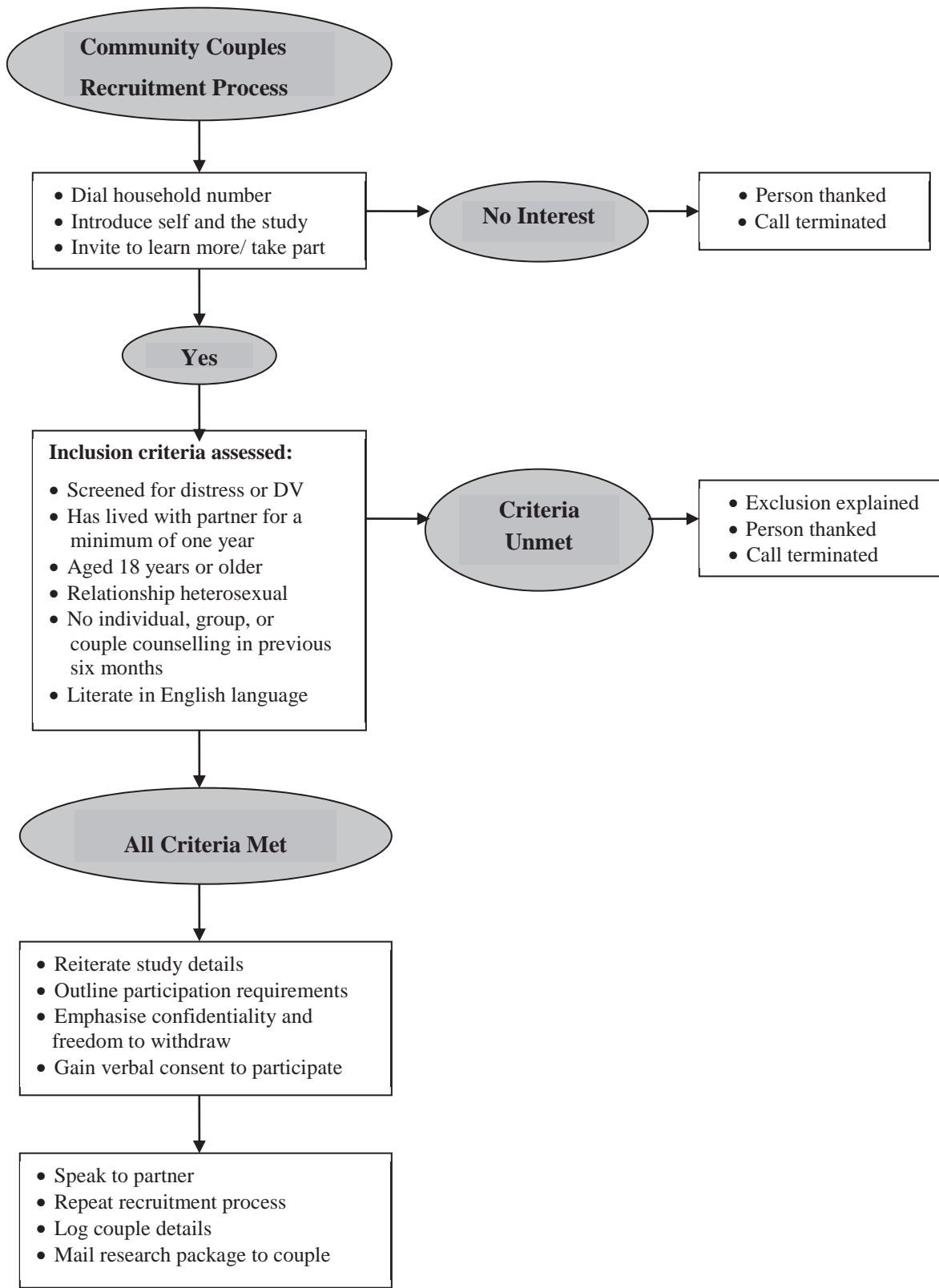


Figure 3. Flow diagram of Community couples' recruitment process phases.

Payments and Agreements

Participants were not offered any financial remuneration for taking part in the study. However, to provide a participatory benefit to individuals, the consent form included options of receiving a personal feedback summary of their *own* responses to the questionnaires, and/or a summary of the study findings after completion of the thesis. It was emphasised that the personal feedback and study findings summaries would be mailed to the individual and not to the couple (see Appendix B for an example of the personal feedback provided to requesting partners). Partners also had an option of being contacted to take part in any future relationship research.

In examining participants' responses to the offers of receiving feedback, study findings, and future research opportunities, 58.8% of husbands and 64.7% of wives requested personal feedback summaries; 73.5% of husbands and 80.6% of wives requested a summary of the study findings (note that the percentages on the study findings variable need to be viewed with caution as some participants included notes that the other partner was requesting a summary and that one copy would suffice); and 55.9% of husbands and 59.4% of wives indicated that they would like to be contacted for any future research that may be conducted. Additionally, of those participants who did not wish to receive any personal feedback on their responses, 15.9% of males and 11.8% of females indicated that they would like to be contacted for any future research.

After the recruitment interviews with both partners were completed and couples had verbally consented to taking part in the study, the ensuing steps in the procedure involved the processing of couples' data.

Data Processing Procedure

Once each couple's mailing details had been recorded, a recruiter entered the names, address, and contact numbers into a computer (Excel) spread-sheet, assigned a code number to each couple's entry, and attached a matching code-numbered label to the postage paid return envelope. The Research Package was then mailed to the couple. Importantly, in addition to the two sets of research documents provided in the research package, each partner also received a privacy envelope in which to seal his/her own returned paperwork. The two returned privacy envelopes were to be returned in the one large envelope. If couples delayed in returning their completed research packages, up to three reminder telephone calls were made. Once each couple's completed package was

returned to the research centre, a recruiter logged receipt of the return envelope's code number against the couple name(s) and code number in the spread-sheet.

To maintain confidentiality of participants' data, the returned envelopes remained unopened by personnel at the research centre, and an e-mail was sent to advise me that packages were available for collection. To ensure security of the documentation until collection, all returned research envelopes were held in a secure storage facility at the SRC.

Once I had collected and opened the research packages, accuracy checks took place in which label numbers on return envelopes and names on the consent forms were checked against a master list containing couples' code numbers, names, and addresses.

To organise receipt of participants' data, I then assigned each couple a unique code, which also distinguished whether the particular questionnaire set pertained to the male or female partner (for example, GP001M, GP001F). The unique code was entered on each participant's consent form and on a separate participant coding sheet that identified the person only by the code. The consent form was removed from the person's questionnaire set and replaced with the identifying participant coding sheet. To allow for any further data tracking, couples' labelled return envelopes were kept with their document sets. The consent forms were stored securely in a locked cabinet and not viewed by anyone but me. Because of the need to be assisted by another person when entering the data, this process ensured that all identifying information remained separate from the questionnaires, and it maintained individuals' confidentiality throughout all further contact with their data.

Following the process of accuracy matching and coding, to certify that each questionnaire could be scored and included in the data analysis, all of the measures were screened for completion. Because full data sets were required from each couple partner, questionnaires that could not be scored due to incomplete responding rendered the couple ineligible for the study. If a feedback summary had been requested by the participant, a summary (that excluded feedback on the incomplete measure) was provided, together with an explanation of the reason why feedback on the particular questionnaire was not included.

Ethical and Duty of Care Considerations

Throughout the procedure of recruiting the couples for the study, collecting their documentation, and organising the data in readiness for entry and analysis, ethical considerations of participant respect, privacy, confidentiality, duty of care, and maintaining the boundary between my roles of researcher and clinician, formed the guiding principle

for the process (Bay-Cheng, 2009; Cahana & Hurst, 2008). This was deemed particularly important given the personal nature of the information provided by those who took part in the study, and because their data was identifiable rather than anonymous.

In implementing this guiding principle, the recruitment process attempted to ensure that partners were as informed as possible about the personal and temporal commitment that was required for participation, the freedom to withdraw from the study at any time, and the strict confidentiality with which the information provided would be handled.

Although the study required a sample of couples rather than individuals, to fulfil a duty of care regarding any possible adverse consequences resulting from participation, each partner was recruited separately to allow independent right of refusal to participate. Furthermore, partners were instructed to discontinue answering the questions if undue distress was occurring, to complete the questionnaires separately, and to refrain from discussing their answers with each other. Within the research package, each participant also received a list containing the names and contact details of a range of relationship counselling services.

Any requested personal feedback summaries were sent to respective partners only and not to the couple. Included with the feedback summary were a covering letter and an additional list of therapeutic services. The letter explained that provision of the lists did not in any way represent a recommendation for therapy, and they were included as information should the person feel the need for professional therapeutic assistance. Such encouragement to seek assistance from counselling services on the lists rather than offering my professional services was necessary because it would have been ethically inappropriate for me to engage in a therapeutic discourse with the research participants. However, although I was not available to participants on a professional therapeutic basis, the information letter received by all individuals included an offer to contact me and/or my supervisors should the person wish to discuss any concerns or questions about the study.

The offer to make contact regarding any concerns or questions was shown to be helpful because nine partners did telephone me, rather than the research centre, with questions and comments. Four partners of couples (all of whom were in their 70s) rang to personally explain why they were withdrawing from the study. Their reasons included “my husband has had a stroke and would find it too daunting”, “we find the idea foreign of a third party intervening in our relationship”, “we would find it too much”, and “it’s more involved than

we thought at first”. They all had an approach of kindness in their apologies for not taking part, and they all conveyed their best wishes for the study.

With the other five partners who made contact, one wife, telephoned to query whether they should “fill in the big questionnaire at the end”. She said “we’re in our late 70s and wondered if the questions about sex would apply because, Pamela, let me tell you, sex is just null and void for us these days”. This was in regard to the revised Marital Satisfaction Inventory in which questions are asked about a range of relationship areas. Another wife rang with a concern about her husband being able to answer the questions “because he doesn’t like to read”; however, she said “he told me to tell you that he will try to do it and see how he goes” (he did complete the questionnaires).

To my surprise, three couples rang simply to provide feedback on their experiences of answering the questions. One said “I really appreciated the separate envelope to put my questionnaires in; that way, I could be totally honest ... I also liked the bit about if we have any concerns after filling in the questions ... I laughed about the part saying the questionnaires needed a pen that can apply pressure, so please use the pen provided and keep it too”. A female partner (in a de facto relationship) said “we loved doing it ... we’re getting married next year and it’s been really helpful for our relationship ... we compared our feedback and it helped sort out some things about our thoughts and feelings”. Finally, one husband rang to ask about the code number, and to say “my wife and I are loving doing the questionnaires ... it’s so interesting and we’re getting a lot out of it”. The personal contact from the participants was encouraging, and suggested that they were taking the research process seriously. It also reinforced the importance of adhering so strictly to the ethical, duty of care, and privacy considerations.

Summary

The procedure for the sample of community couples included utilising a sampling frame of computer-based randomly generated telephone numbers that were sourced from the electronic residential telephone directory for Perth, Western Australia.

Professional recruiters telephoned 2532 numbers, which through a process of elimination based on structured criteria, ultimately resulted in gaining a sample of 250 eligible couples for the study.

Of these 250 couples, fully analysable data sets were gained for a final 170 couples, which represented a response rate of 68%.

Throughout the procedure of gaining the study sample, the fundamental guiding tenet was consideration of ethical, duty of care, and privacy obligations to the participants who, in their willingness to take part in the research, had provided personal and identifying information.

Following the sample selection, recruitment, and organisation of couples' returned questionnaires, consideration was given to the conceptual and statistical issues involved in structuring and analysing dyadic data. This process is detailed below.

Dyadic Data Analysis

Following the processing of participants' returned questionnaires, accuracy screening, and privacy coding procedures, the data were entered and analysed. However, analysing data gained from dyads or groups requires some alternative considerations to those of analysing data from individuals (Kenny et al., 2006). For the benefit of readers unfamiliar with dyadic research, and to assist future relationship researchers, each section of analysis begins with a brief overview of the salient points pertaining to the dyadic approach applied in that particular analysis.

Overview of Dyadic Data Analysis

Kenny et al. (2006) stated that “perhaps the most fundamental concept in dyadic data analysis is that of nonindependence” (p. 4). Furthermore, a number of investigators (Kashy & Snyder, 1995; Kenny, 1995; Kenny & Judd, 1986; Kenny et al., 2006; Kraemer & Jacklin, 1979) have suggested that when analysing dyadic data, consideration of nonindependence, and thus relatedness, is a serious issue that is often ignored.

Nonindependence of data occurs when persons in the same study are associated with each other in real world situations (for example, as with intimate partners, friends, work colleagues, and so forth), resulting in the likelihood that their responses will be correlated by the very fact that they are already associated with, and are influencing, each other in some way (Kenny & Kashy, 1991; Kenny et al., 2006). In formalising the definition of the concept, Kenny et al. (2006, p. 4) stated that “if the two scores from the two members of the dyad are nonindependent, then those two scores are more similar to (or different from) one another than are two scores from two people who are not members of the same dyad”. Hence, it is the aspect of heightened similarity or dissimilarity that is the critical issue.

Although nonindependence is “often treated merely as a statistical nuisance”, and certainly complicates relational data analysis, the interdependency can be a defining feature of relationships, and thereby of interest in research with dyads (Kenny & Kashy, 1991, p. 277). Moreover, when dyadic research has a focus on assessing similarities or

differences between couples, it becomes of vital importance to consider the issues of nonindependence to ensure confidence in any significant findings that emerge. The implications of ignoring the issues of nonindependence of couples' data involve biasing of results leading to Type I errors of rejecting true null hypotheses, Type II errors of accepting false null hypotheses, and/or limitations with the research questions that can be addressed (Kashy & Snyder, 1995; Kenny et al., 2006).

Major issues to consider in dyadic nonindependence include: (1) the dyadic study design utilised (for example, whether it is a Standard Dyadic design whereby each person is a member of one and only one couple, a Social Relations Model design where each person is paired with multiple others, and each of these others is also paired with multiple others, or a One-With-Many design where each person is paired with multiple others, but these others are not paired with any other persons); (2) the distinguishability of the dyad members in terms of whether they can be consistently distinguished by any variable (for example, heterosexual couples consisting of male and female partners can be distinguished by their gender, whereas data from homosexual couples cannot be distinguished by any consistent means); (3) the structure of the data file in terms of whether the *individual* or *dyad* is treated as the unit of analysis; (4) the types of predictor variables (between-dyad, within-dyad, or mixed); and (5) the need to assess the degree of nonindependence between dyads' outcome scores prior to main analyses (Kashy & Snyder, 1995; Kenny & Kashy, 1991; Kenny et al., 2006, pp. 1-52). Consequently, in taking into account the issues involved in nonindependence within dyadic research, the present study was designed and formulated in the following manner.

Dyadic Design of the Study

The current study utilised a *reciprocal Standard Dyadic design* in which both partners in the couple were measured, and each partner was a member of one and only one dyad. Within the design, this equated to n dyads, $2n$ individuals, and $2n$ observations per variable (Kenny et al., 2006, p. 11).

Distinguishability of the Dyad Members

The study comprised heterosexual male and female couples that were distinguishable by their gender.

Structure of the Data File

The structure of the data file has implications for the kinds of analyses that can be performed, and the decision pertaining to the use of individual-level or couple-level data presents relationship researchers with a number of statistical and theoretical dilemmas. Statistically, when using significance tests to analyse couples' data, violation of the independence assumption can bias such tests if individuals are designated as the unit in the analysis (Kenny, 1995; Kenny & Judd, 1986; Kenny et al., 2006). In other words, if the couples' data are nonindependent, and individuals are treated as the unit of analysis, there is the potential for elevated Type 1 or Type 11 error rates. Conversely, the nonindependence does not bias significance tests if dyads are utilised as the unit of analysis, or if analyses such as matched pairs or repeated-measures are used (Kashy & Snyder, 1995; Kenny, 1995; Kenny, 1996; Kenny et al., 2006; Kraemer & Jacklin, 1979). Theoretically, testing couples within an individual-level unit of analysis does not allow for research questions to be fully addressed regarding the effects that partners' characteristics may have on each other.

In considering these dilemmas, when a study design is standard (each person is a member of only one dyad), and has distinguishable participants, there are three different ways of structuring the data file. These are referred to as "*individual, dyad, and pairwise structures*" (Kenny et al., 2006, p. 15, emphasis in original).

An *individual* data structure is one in which each person's score is entered consecutively. When analysing data from couple partners, this structure is not recommended because the analysis is then conducted with the individual as the unit of analysis. Also, this structure fails to take nonindependence into account, and prohibits examination of the mutual influences of the partners. However, data may be initially entered into an individual data file and then transformed into the preferable *dyad* structure, which organises couple partners' scores adjacent to each other and produces a single unit for each dyad. The individual data structure may also be transformed into a *pairwise* structure, which "is a combination of the individual and dyad structures in the sense that there is one record for each individual but both partners' scores occur on each record as well" (Kenny et al., 2006, p. 18). Essentially, it is a double-entry method whereby each husband's record also contains his wife's score and each wife's record also contains her husband's score. Arranging data into a pairwise structure serves to broaden the scope of the kind of research questions that may be tested. For example, utilising such a data

structure enables employment of the Actor-Partner Interdependence Model (APIM), which can be used to analyse how persons are affected by their own (Actor effects) and their partner's (Partner effects) predictor and outcome variables, as well as the effects of partners' similarities, differences, and interactions (Kenny et al. 2006).

In the current study, raw data were initially entered into one worksheet and an automatically, applicably recoded version was transmitted into a separate working data file. This procedure was utilised for all questionnaires except the MSI-R; as per the test scoring instructions, this measure required hand-scoring to obtain raw scores, which were then converted to normalised *T*-scores that provided totals for each of the scales. The normalised MSI-R total scores were entered into the raw data file worksheet and automatically replicated into the working data file.

Entering the data using this procedure allowed a formal record to be kept of all original raw data (except for the MSI-R) as well as producing a working data file that held the reverse-coded scores. Accuracy of the replication procedure was maintained via regular random checking of the reverse-coding that had occurred.

To enable a range of analyses to be computed, the final data entry process involved constructing three separate data files. The reverse-coded working data file was transferred into an *individual* file structure, which was then transformed to provide a *dyad* data file, and also a *pairwise* data file (see Kenny et al., 2006, pp. 14-18 for recommendations on dyad file transformation).

Types of Predictor Variables Utilised

Consideration of the nature of the independent (predictor) variables utilised in dyadic research is important when making decisions about appropriate data-analytic approaches. Kenny et al. (2006) distinguish between three types of variables: between-dyads variables, which vary from couple to couple but not within a couple (e.g., relationship duration); within-dyads variables, which differ between the two couple members, but when averaged across the two members, give an identical average score for each dyad (e.g., gender); and mixed variables, which may vary both between and within dyads (e.g., age). In this study, the predictor variables were all mixed variables, and interval level in measurement.

Assessing Nonindependence between Dyads' Outcome Scores

Kenny et al. (2006) indicated that when the study design is standard, the dyad members are distinguishable (as with husbands and wives), and the measurement is of interval-level

scores, then nonindependence can be estimated using standard Pearson product-moment correlation coefficients on the outcome variables. In computing this coefficient, the correlation needs to be of the *dyad*, not the individual, and therefore requires the dyad to be the unit of analysis. However, Kenny et al. also suggested that if the study includes predictor variables, nonindependence of outcome variables may be tested further with the predictor variables controlled. If the predictor variables are not controlled, there is a risk of mistakenly concluding that nonindependence exists when, in fact, it does not. Testing of nonindependence with predictor variables controlled may be undertaken by “computing a partial correlation between the two dyad members’ scores, partialing out the effects of the independent variables” (Kenny et al., p. 31). Significant correlations between partners on the outcome variables indicate nonindependence of the data, necessitating use of statistical techniques that take the relatedness into account.

Summary

There are a number of important issues to consider when conducting research with related samples, such as couples. The current study has taken these matters into account through formulating a reciprocal standard dyadic design, having a sample of heterosexual couples, constructing data files that have individual, dyadic, and pairwise structures, and by using predictor variables that are mixed in nature and interval level in measurement. This design enables assessment of nonindependence, and the use of statistical techniques that can test a range of research questions that are specific to related dyads.

Following consideration of the conceptual and statistical issues surrounding analysis of couples’ data, and construction of the separate data files, data were analysed utilising the Statistical Package for the Social Sciences (SPSS) versions 17 to 20 for Windows. Although it has been suggested by Kenny et al. (2006) that the test for nonindependence may be quite liberal (two-tailed alpha of .20) to enable analysis of a minimum of 28 dyads, the current study’s sample of 170 dyads enabled a significance level of $< .05$, which allowed for power of at least .80 to detect nonindependence. The analytic process began with initial steps of assessing participants’ response styles, and screening for missing data.

Response Style Assessment

It appears to be relatively rare for researchers to report the subjective predispositions and biases that may have influenced participants’ responses to questions that were asked. Having knowledge of the context within which findings emerge seems important,

particularly when formulating the results into interpretations that are meaningful for ‘real world’ applications. Two ways of determining response context are to examine whether participants have answered questions in a reliably careful and consistent way, and whether there is a bias toward positive, negative, or socially desirable responding.

Therefore, at the outset of the data analysis, consideration was given to participants’ response styles, which was enabled through the MSI-R Inconsistency (INC) and Conventionalization (CNV) validity scales. Both of these scales have score ranges of low, moderate, and high, with low scores on the INC scale indicating carefully considered responses that accurately reflect participants’ attitudes. Moderate scores “may reflect mixed sentiments within specific relationship domains”, and high INC scores identify random, careless, and/or non-reflective responding. The CNV scale assesses appraisal of the relationship, with low scores indicating a relationship appraisal that is distorted in a negative direction, suggesting a possible failure to consider positive aspects of the partner and/or the relationship. Moderate CNV scores in general community (non-therapy) individuals “reflect a level of idealization or romanticism typical of happy, satisfied couples”. High CNV scores suggest a tendency “to distort the appraisal of their relationship in a socially desirable direction ... and describe the relationship in an unrealistically positive manner” (Snyder, 1997, pp. 20-21).

Frequency analyses for the Inconsistency scale indicated that for husbands, 71.2%, 26.5%, and 2.4% were in the low, moderate, and high ranges respectively. For wives, 69.4%, 28.8%, and 1.8% were in the low, moderate, and high ranges respectively. A paired-samples *t* test indicated that there was no significant difference between husbands’ and wives’ scores, $t(169) = 1.215, p = .226$.

Frequency analyses for the Conventionalization scale indicated that for husbands, 20.6%, 35.3%, and 44.1% were in the low, moderate, and high ranges respectively. For wives, 21.2%, 30%, and 48.8% were in the low, moderate, and high ranges respectively. A paired-samples *t* test indicated that there was no significant difference between husbands’ and wives’ scores, $t(169) = 1.179, p = .240$.

Summary

The majority of husbands and wives showed consistent, careful, and reflective response styles, yet they presented highly idealised positive appraisals of their relationships.

Screening and Assessment of Missing Data

Data were screened for univariate and multivariate outliers, and assessed for missing data for all variable items (except the MSI-R measuring Relationship Dissatisfaction). The MSI-R was excluded from this process because the missing data on this scale had already been taken into account within the hand-scoring of the raw data. Thus, the variables assessed were the TAS-20 total scale (giving a total alexithymia score), the TAS-20 subscales DIF - *difficulty identifying feelings*, DDF - *difficulty describing feelings*, and EOT - *externally oriented thinking*, the BLRI subscales of Empathy Provided and Empathy Received, and the GRQ subscales of Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection. As seen in Table 8, within the measures screened, there were 21 missing values across the sample of 170 couples (340 individuals).

Table 8

Scale Items and Percentages of Missing Data for Husbands and Wives

Sub-scale Item	Husbands		Wives	
	<i>n</i>	Percent	<i>n</i>	Percent
Difficulty Describing Feelings Item 4	2	0.6		
Difficulty Describing Feelings Item 11			1	0.3
Externally Oriented Thinking Item 5	1	0.3		
BLRI-MO Empathy Item 2	1	0.3	2	0.6
BLRI-MO Empathy Item 11	2	0.6	2	0.6
BLRI-MO Empathy Item 32			2	0.6
BLRI-MO Empathy Item 44	1	0.3	1	0.3
BLRI-OS Empathy Item 8			1	0.3
BLRI-OS Empathy Item 11	1	0.3		
BLRI-OS Empathy Item 23	1	0.3		
BLRI-OS Empathy Item 38	1	0.3		
GRQ Turn Against Item 5	1	0.3		

Note. Empty cells indicate that there were no missing data on the variable item.

Although the majority of the missing data were within the BLRI Empathy Provided and Empathy Received subscales, there did not appear to be any systematic pattern relative to any one item. As is recommended with minimal missing data that is missing at random, the missing values were replaced using the method of mean substitution of the subscale item (King, Fogg, & Downey, 1998). It is worth noting that when the mean substitution method is used with independent data, the missing value would usually be replaced with the item mean of the entire sample; however, because of the potential relatedness of the data in this study, the mean was computed and replaced separately for males or females based on the gender pertaining to the missing value.

Following the preparation of the data files, response style assessment, and screening of missing data, the data were ready for analysis. As a context for the analyses, an overview of the analytical strategy is provided.

Analytical Strategy Overview

In this first study, the sample of 170 community couples afforded the opportunity of conducting a systematic investigation of alexithymia within couples' relationships. As such, it provided a sound base for gathering extensive knowledge about the processes occurring within community couples, which has the potential to be extended into useful application with clinical couples who seek therapy for their relationship distress. The analyses occurred in four phases, each of which is briefly outlined below.

In the first phase, the initial step was assessment of nonindependence of the outcome variables (Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction). This was important due to the need to utilise alternative statistical techniques should the data be related (Kenny et al., 2006). Based on this assessment, preliminary analyses were then performed to elicit a description of the data. This included computing descriptive statistics, mean (gender) differences between partners, and assessing prevalence rates of alexithymia in the sample. Correlations were also computed to examine husbands' and wives' intrapersonal (own) and interpersonal (between partners) associations between all of the variables.

The second phase utilised the Actor-Partner Interdependence Model (APIM) to provide a more detailed examination of the personal (Actor) and mutual (Partner) influences of alexithymia on spouses' outcome variables.

In phase three, discrepancies (differences) in alexithymia between husbands and wives were investigated in terms of how these may affect their Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction.

In the fourth phase, Structural Equation Modeling (SEM) was utilised to investigate the direct and indirect pathways between husbands' and wives' Alexithymia and Relationship Dissatisfaction, to determine whether their Empathy and Emotional Connection variables mediated that association.

Phase 1: Preliminary Data Analysis

The described analytical strategy begins with an examination of the data nonindependence, gender differences, prevalence rates, and associations between the variables.

Assessment of Data Nonindependence

As recommended by Kenny et al. (2006), data nonindependence was assessed by computing Pearson product-moment correlations between husbands and wives' scores on the outcome variables. The *dyad* data file structure was utilised to ensure that the correlation was of the couple and not the individual. As seen in Table 9, spouses' scores were significantly positively related on all of the variables, which indicated relatedness of their data.

In determining the strength of the relatedness, the parameters were defined as weak ($<.3$), moderate ($>.3$ and $<.5$), or strong ($>.5$) (Cohen, 1992). Findings indicated weak correlations for Turn Toward, Turn Away, and Turn Against, moderate correlations for Empathy Provided, Empathy Received, and Positive Emotional Connection, and a strong correlation for Relationship Dissatisfaction.

Although the findings indicated data nonindependence, Kenny et al. (2006) recommend conducting a further check on the relatedness of the outcome variables by controlling the predictor/independent variables. Thus, partial correlations were computed on Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction, with the TAS-20 total scale with the subscales DIF, DDF, and EOT controlled.

Table 9

Assessment of Nonindependence: Zero Order (Pearson) Correlation Coefficients between Husbands' and Wives' Outcome Variables

Measures	<i>r</i>	<i>p</i>
EP	.46	<.001
ER	.44	<.001
TToward	.20	.007
TAway	.25	.001
TAgainst	.17	.022
PEC	.37	<.001
RelDissat	.59	<.001

Note. *N* = 170 couples. EP = empathy provided; ER = empathy received; TToward = turn toward; TAway = turn away; TAgainst = turn against; PEC = positive emotional connection; RelDissat = relationship dissatisfaction. *p* < .05. All tests are two-tailed.

As shown in Table 10, the partial correlation coefficients resulted in one nonsignificant finding, which was Turn Against with DDF controlled (*p* = .061). When comparing the controlled partial correlation coefficients with the zero order (Pearson) correlation coefficients, Turn Against with DDF controlled was the sole finding that differed between the two procedures. Therefore, given the number of observed variables that showed significant correlations, the data were assessed as nonindependent.

Following assessment of the data relatedness, the dyad data file structure was utilised to conduct the preliminary analyses. Whilst the preliminary analyses may seem somewhat over inclusive, they were aligned with the overall aims of assisting research replication, and of gaining a more complete understanding of the relationships between husbands' and wives' own independent and outcome variables (intrapersonal associations), and between husbands and wives on these variables (interpersonal associations).

Table 10***Comparisons of Partial and Zero Order Correlation Coefficients between Husbands' and Wives' Outcome***

Measures	TAS-20		DIF		DDF		EOT	
	$r_{ab.c}$	p	$r_{ab.c}$	p	$r_{ab.c}$	p	$r_{ab.c}$	p
EP	.41	<.001	.47	<.001	.37	<.001	.45	<.001
ER	.37	<.001	.41	<.001	.34	<.001	.43	<.001
TToward	.20	.008	.21	.007	.17	.028	.22	.004
TAway	.23	.003	.24	.002	.21	.005	.26	.001
TAgainst	.16	.033	.17	.029	.14	.061	.20	.009
PEC	.37	<.001	.37	<.001	.34	<.001	.39	<.001
RelDissat	.59	<.001	.58	<.001	.59	<.001	.60	<.001

Note. $N = 170$ couples. TAS = TAS-20 total alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = empathy of a and b (husbands' and wives' outcome variables) with the effect of c (husbands' and wives' predictor variables) removed; EP = empathy provided; ER = empathy received; TToward = turn toward; TAway = turn away; TAgainst = turn against; PEC = positive emotion correlation; RelDissat = relationship dissatisfaction.
 $p < .05$. All tests are two-tailed.

As a reference point for this study, each analysis section begins with a summary of the relevant findings from the previous alexithymia research with couples. Each summary provides the prior findings that are specific to the particular section and its analysis.

An issue requiring mention pertains to the measurement of relationship quality in the previous research. Where some studies utilised a measure of relationship satisfaction (i.e., the Dyadic Adjustment Scale), others used a measure of relationship dissatisfaction (i.e., the global distress scale of the MSI-R). The current research employed the MSI-R global distress scale, which “measures individuals’ overall dissatisfaction with the relationship, and is the best single indicator of global relationship affect” (Snyder, 1997, p. 21). To maintain consistency in reporting the directionality of the relationship quality scales in the previous and current research, this outcome variable is referred to, and interpreted as, Relationship Dissatisfaction.

Descriptive Statistics, and Mean Gender Differences

The previous research with couples and alexithymia, empathy, and relationship dissatisfaction has shown inconsistencies in the findings regarding gender differences in alexithymia. For example, with the TAS-20 total scale, Eid and Boucher (2012) found that males scored significantly higher than females, whereas Eizaguirre (2002), and Humphreys et al. (2009), found no significant gender differences.

With the Difficulty Identifying Feelings (DIF) factor, no gender differences were found by Cordova et al. (2005), Dunham (2008), Eid and Boucher (2012), Eizaguirre (2002), Humphreys et al. (2009), Mirgain and Cordova (2007), Wachs and Cordova (2007), and Yelsma and Marrow (2003). On Difficulty Describing Feelings (DDF), males were found to be higher than females by Cordova et al. (2005), Eid and Boucher (2012), and Yelsma and Marrow (2003). No gender differences were found by Dunham (2008), Eizaguirre (2002), Humphreys et al. (2009), and Mirgain and Cordova (2007). With Externally Oriented Thinking (EOT), whilst Eid and Boucher (2012) and Yelsma and Marrow (2003) found males to be significantly higher than females, no gender differences were found by Eizaguirre (2002) or Humphreys et al. (2009).

In regard to Empathy, Mirgain and Cordova (2007) found that males were higher than females on personal distress in response to others’ distress, and females were higher than males on empathic concern. No gender differences were found on perspective taking. In contrast, despite the different measures utilised in the previous research to assess couples’

marital quality, no gender differences were found for any of the scales. This applied to the Relationship Assessment Scale (Humphreys et al., 2009), the Dyadic Adjustment Scale (Eid & Boucher, 2012; Wachs & Cordova, 2007; Yelsma & Marrow, 2003), and the MSI-R Global Distress Scale (Mirgain & Cordova, 2007).

Current Study Findings

As shown in Table 11, this study's descriptive statistics and paired-samples *t* tests indicated that husbands had significantly higher TAS-20, DDF, EOT, and Empathy Received than did wives. No significant gender differences were found on DIF, Empathy Provided, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction.

Table 11
Descriptive Statistics, and Mean Differences between Husbands and Wives

Measures	Husbands		Wives		<i>t</i> (169)	<i>p</i>	95% CI of Diff.	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			LL	UL
TAS	46.38	11.78	41.71	11.06	3.97	<.001	2.35	6.99
DIF	13.40	5.94	13.20	5.62	0.33	.735	0.93	1.32
DDF	12.74	4.48	10.38	3.79	5.31	<.001	1.48	3.23
EOT	20.23	4.85	18.11	4.99	4.30	<.001	1.14	3.09
EP	14.31	11.72	14.80	12.25	0.51	.609	-2.36	1.38
ER	17.00	15.26	12.75	17.35	3.19	.002	1.62	6.87
TToward	8.70	1.34	8.70	1.57	0.00	1.00	-0.28	0.28
TAway	3.30	1.73	3.03	1.54	1.76	.079	-0.03	0.57
TAgainst	3.74	2.15	3.36	1.97	1.85	.066	-0.02	0.77
PEC	9.08	1.41	8.96	1.61	0.90	.368	-0.14	0.18
RelDissat	49.35	8.85	49.11	7.50	0.42	.674	-0.88	1.36

Note. *N* = 170 couples. CI = confidence interval of the difference; LL = lower limit; UP = upper limit. TAS = TAS-20 total alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally oriented thinking; EP = empathy provided; ER = empathy received; TToward = turn toward; TAway = turn away; TAgainst = turn against; PEC = positive emotional connection; RelDissat = relationship dissatisfaction.
p < .05. All tests are two-tailed.

Alexithymia Prevalence in Couple Partners

Although alexithymia prevalence rates have been reported in studies with individuals, there is currently very little information on these rates within couples. Across the previous research, two of the studies reported prevalence rates of alexithymia in couples:

Eizaguirre's (2002) Spanish sample showed 20.8% of husbands and 18.1% of wives to be highly alexithymic, and Frye-Cox and Hesse (2013) found that in an American sample, high alexithymia was prevalent in 7.5% of husbands and 6.2% of wives.

For the current study's Australian sample, frequencies computed on the TAS-20 total scale indicated that for husbands, 115 (67.6%) were in the low alexithymia range of ≤ 51 , 36 (21.2%) were in the range equating to moderate alexithymia of 52 - 60, and 19 (11.2%) were in the high alexithymia range of ≥ 61 . For wives, 136 (80%) were in the low range, 25 (14.7%) were in the moderate range, and 9 (5.3%) were in the high range.

Summary

Husbands' and wives' data were found to be highly related, and were therefore analysed in accordance with nonindependent dyadic data analyses.

Husbands were significantly higher than were wives on the TAS-20, DDF, EOT, and Empathy Received. There were no significant differences between partners on any of the other variables.

Prevalence rates of high alexithymia were 11.2% for husbands and 5.3% for wives.

In the next section, examination takes place of how each gender's own independent (alexithymia) variables, outcome variables, and the independent and outcome variables are associated. This will provide information on the way in which general community partners' variables intersect to affect their own experiencing.

Husbands' and Wives' Intrapersonal Correlations between the Alexithymia Variables

Previous research reporting separate correlations between husbands' and wives' own alexithymia variables found that husbands' TAS-20 total scale, DIF, DDF, and EOT were all significantly positively correlated with each other, and that wives had similar results except for a nonsignificant finding between DIF and EOT (Eizaguirre, 2002). In studies

testing only the DIF and DDF factors, Dunham (2008) found that both husbands' and wives' DIF was significantly positively correlated with their own DDF. Cordova et al. (2005) found that husbands' DIF was significantly positively correlated with their own DDF; however, there was no significant correlation for wives.

Current Study Findings

In the current study, Pearson correlations indicated that for both husbands and wives, their TAS-20, DIF, DDF, and EOT were all significantly positively associated with each other (see Table 12).

Husbands' and Wives' Intrapersonal Correlations between the Outcome Variables

Within the reviewed research with couples, the only similar combination of dependent variables that could serve a comparative basis for the current study were those of the IRI empathy variables and Relationship Dissatisfaction (Mirgain & Cordova, 2007; Wachs & Cordova, 2007). However, Mirgain and Cordova (2007) did not report intrapersonal correlations on these variables, and Wachs and Cordova (2007) utilised couple-level correlations; hence, no comparisons were available.

Current Study Findings

As shown in Table 12, findings indicated that husbands and wives had an identical intrapersonal pattern of results, with all of their outcome variables correlated in the expected directions. Specifically, each gender's Empathy Provided was related to higher Empathy Received, Turn Toward, and Positive Emotional Connection, and to lower Turn Away, Turn Against, and Relationship Dissatisfaction. Partners' Empathy Received was also associated with higher Turn Toward, and Positive Emotional Connection, and lower Turn Away, Turn Against, and Relationship Dissatisfaction. Turn Toward was correlated with higher Positive Emotional Connection, and lower Turn Away, Turn Against, and Relationship Dissatisfaction. Turn Away was associated with higher Turn Against and Relationship Dissatisfaction, and lower Positive Emotional Connection. Turn Against was related to higher Relationship Dissatisfaction, and lower Positive Emotional Connection. Positive Emotional Connection was correlated with lower Relationship Dissatisfaction.

Husbands' and Wives' Intrapersonal Correlations between the Alexithymia and the Outcome Variables

Within the previous research, the only relevant reported findings were for intrapersonal correlations between husbands', and wives', TAS-20, DIF, DDF, EOT and Relationship Dissatisfaction; however, the findings were inconsistent. Where some studies found that for both husbands, and wives, their own total TAS-20 was significantly positively associated with their Relationship Dissatisfaction (Eid & Boucher, 2012; Foran et al., 2012; Frye-Cox & Hesse, 2013), no significant correlations were found for either gender by Eizaguirre (2002). However, when Eizaguirre (2002) compared low and high TAS-20 scores and Relationship Dissatisfaction, a significant positive association was found for high Alexithymia and Relationship Dissatisfaction for husbands, but not for wives.

Husbands' DIF was found to be significantly positively correlated with their Relationship Dissatisfaction by Cordova et al. (2005), Dunham (2008), and Eizaguirre (2002), whereas no significant association was found by Eid and Boucher (2012). Wives' DIF was positively associated with their Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012); however, no significant association was found by Eizaguirre (2002).

For both husbands', and wives' DDF, significant positive correlations were found with their own Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012), with no significant associations found by Eizaguirre (2002). Mirgain and Cordova (2007) found that husbands', and wives' DIF and DDF as a combined variable was positively correlated with their own Relationship Dissatisfaction.

With the studies that tested the EOT factor and Relationship Dissatisfaction, findings indicated that there were no significant correlations for either gender (Eid & Boucher, 2012; Eizaguirre, 2002).

Current Study Findings

Findings indicated that husbands' TAS-20 and DDF were correlated negatively with Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and positively with Turn Away, Turn Against, and Relationship Dissatisfaction. Husbands' DIF and EOT were similarly associated with the outcome variables except for a nonsignificant correlation between DIF and Turn Against, and between EOT and Relationship Dissatisfaction.

For wives, their TAS-20 was significantly negatively correlated with Empathy Provided, Empathy Received, and Positive Emotional Connection, and positively correlated with Turn Away, Turn Against, and Relationship Dissatisfaction. No significant association was found between TAS-20 and Turn Toward. Wives' DIF was significantly correlated in the expected directions with all of the outcome variables. Their DDF was negatively correlated with Empathy Provided, Empathy Received, and Positive Emotional Connection, and positively correlated with Turn Against, and Relationship Dissatisfaction. There were no significant associations between DDF and Turn Away, or Turn Toward. Wives' EOT was negatively correlated with Empathy Provided, and positively correlated with Turn Against; there were no significant associations between EOT and Empathy Received, Turn Toward, Turn Away, Positive Emotional Connection, or Relationship Dissatisfaction (see Table 12).

Summary

For both husbands and wives, their own TAS-20, DIF, DDF, and EOT were all significantly positively related to each other.

Husbands', and wives' own Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction were all significantly related to each other in the expected positive and negative directions.

The majority of the husbands' alexithymia and outcome variables were significantly correlated in the expected directions. However, there were no significant associations between DIF and Turn Against, or between EOT and Relationship Dissatisfaction.

Although many of the wives' alexithymia and outcome variables were significantly correlated in the expected directions, there were no significant associations between the TAS-20 total and Turn Toward, DDF and Turn Toward, and Turn Away, or EOT and Empathy Received, Turn Toward, Turn Away, Positive Emotional Connection, or Relationship Dissatisfaction.

Therefore, compared to wives, husbands' own alexithymia variables showed more of an impact on their outcome variables. For wives, their DIF had the greatest effect on their outcome variables.

Table 12*Summary of Husbands' and Wives' Intrapersonal Correlation Coefficients on the Independent and Outcomes*

Measures	TAS	DIF	DDF	EOT	EP	ER	TToward	TAway	TAgainst	PEC
TAS	-	.82***	.81***	.67***	-.52***	-.48***	-.29***	.33***	.23**	-.26**
DIF	.80 ***	-	.56***	.24**	-.44***	-.41***	-.18*	.27***	.13	-.16*
DDF	.79 ***	.54***	-	.36***	-.46***	-.44***	-.30***	.28***	.20**	-.26***
EOT	.70***	.24**	.38***	-	-.31***	-.24**	-.20**	.20*	.21**	-.19*
EP	-.32***	-.28***	-.30***	-.17*	-	.76***	.47***	-.44***	-.33***	.42***
ER	-.27***	-.30***	-.27***	-.05	.73***	-	.59***	-.57***	-.46***	.68***
TToward	-.12	-.15*	-.06	-.04	.38***	.51***	-	-.60***	-.44***	.66***
TAway	.17*	.21**	.13	.05	-.32***	-.42***	-.63***	-	.45***	-.49***
TAgainst	.24**	.20**	.15*	.19*	-.37***	-.45***	-.47***	.52***	-	-.44***
PEC	-.24**	-.24**	-.26**	-.06	.39***	.49***	.59***	-.58***	-.45***	-
RelDissat	.29***	.31***	.31***	.06	-.45***	-.62***	-.46***	.49***	.45***	-.43***

Note. $N = 170$ husbands and 170 wives. Husbands are shown above the diagonal and wives are shown below the diagonal. TAS = alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally-oriented thinking; EP = empathy provided; ER = empathy received; TToward = turn toward; TAway = turn away; TAgainst = turn against; PEC = positive emotional expression; RelDissat = global relationship dissatisfaction.

* $p < .05$. ** $p < .01$. *** $p < .001$. All tests are two-tailed.

Having examined the ways in which the study variables are associated within husbands' and wives' own experiencing, the next step was to investigate how the variables are correlated between the couple partners. For completeness, these interpersonal correlations between husbands and wives are firstly reported for the independent (Alexithymia) variables, secondly, for the outcome variables, and thirdly, for the independent and outcome variables.

Interpersonal Correlations between Husbands' and Wives' Alexithymia Variables

Previous research that has examined correlations between spouses' alexithymia variables found that husbands and wives were significantly positively correlated on the total TAS-20 (Eid & Boucher, 2012; Frye-Cox & Hesse, 2013), DIF (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012), DDF (Cordova et al., 2005; Eid & Boucher, 2012), and on EOT (Eid & Boucher, 2012). Conversely, other studies found that husbands and wives were not significantly related on the TAS-20 (Foran et al., 2012; Frye & Feistman, 2010), or on DIF (Foran et al., 2012), DDF (Dunham, 2008; Foran et al., 2012), or EOT (Foran et al., 2012).

Significant positive correlations were also found between husbands' TAS-20 and wives' DIF, DDF, and EOT, wives' TAS-20 and husbands' DIF, DDF, and EOT (Foran et al., 2012), husbands' DIF and wives' DDF (Cordova et al., 2005; Dunham, 2008; Foran et al., 2012), wives' DIF and husbands' DDF (Cordova et al., 2005), husbands' DDF and wives' DIF and EOT (Foran et al., 2012), and between husbands' EOT and wives DIF and DDF (Foran et al., 2012).

Furthermore, analyses with husbands and wives combined indicated significant positive correlations between DIF and DDF (Wachs & Cordova, 2007), and between all of the TAS-20, DIF, DDF, and EOT variables (Humphreys et al., 2009). The previous studies that are not mentioned here did not report the separate TAS-20 and/or factor correlations between the spouses.

Current Study Findings

Correlations were computed between couple partners' TAS-20 total scale, and the DIF, DDF, and EOT subscales. As seen in Table 13, husbands' and wives' DIF and EOT were positively correlated, but there were no significant associations between their total TAS-20 scales or DDF subscales.

Interpersonal Correlations between Husbands' and Wives' Outcome Variables

The previous research on Empathy found that, based on couple-level correlations, Empathic Concern was significantly positively associated with Perspective Taking, that Perspective Taking was positively associated with Lack of Personal Distress, and that Lack of Personal Distress was negatively associated with Relationship Dissatisfaction (Wachs & Cordova, 2007).

With the previous studies that examined associations between husbands and wives on Relationship Dissatisfaction, significant positive correlations were found by Cordova et al. (2005), Dunham (2008), Eid and Boucher (2012), and Frye-Cox and Hesse (2013).

Current Study Findings

Findings indicated that husbands' and wives' were significantly associated on all of the outcome variables. Specifically, spouses' Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction were all positively correlated.

Additionally, cross-analyses indicated positive correlations between husbands' Empathy Provided and wives' Empathy Received and Positive Emotional Connection, and negative correlations with wives' Turn Away, Turn Against, and Relationship Dissatisfaction. Husbands' Empathy Provided and wives' Turn Toward were not associated.

Husbands' Empathy Received and wives' Empathy Provided, Turn Toward, and Positive Emotional Connection were positively correlated, and there were negative correlations with wives' Turn Away, Turn Against, and Relationship Dissatisfaction.

Husbands' Turn Toward was positively correlated with wives' Empathy Provided, Empathy Received, and Positive Emotional Connection, and negatively associated with wives' Turn Away, Turn Against, and Relationship Dissatisfaction.

Husbands' Turn Away was positively correlated with wives' Turn Against, and Relationship Dissatisfaction, and negatively with wives' Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection.

Husbands' Turn Against was positively correlated with wives' Relationship Dissatisfaction, and negatively with wives' Empathy Provided, Empathy Received, and Positive Emotional Connection.

Husbands' Positive Emotional Connection was positively correlated with wives' Empathy Provided, Empathy Received, and Turn Toward, and negatively with wives' Turn Away, Turn Against, and Relationship Dissatisfaction.

Husbands' Relationship Dissatisfaction was positively correlated with wives' Turn Away and Turn Against, and negatively with wives' Empathy Provided, Empathy received, Turn Toward, and Positive Emotional Connection.

Interpersonal Correlations between Husbands' and Wives' Alexithymia and Outcome Variables

With the previous studies utilising whole group analyses, an inverse relationship was found between DIF and the Empathy measure Lack of Personal Distress (Wachs & Cordova, 2007). The TAS-20 was significantly correlated with higher Relationship Dissatisfaction (Humphreys et al., 2009), as was DIF (Humphreys et al., 2009; Wachs & Cordova, 2007), DDF (Humphreys et al., 2009; Wachs & Cordova, 2007), and the EOT factor (Humphreys et al., 2009).

In the research examining correlations between spouses' alexithymia variables and Relationship Dissatisfaction, results indicated significant positive associations between husbands' TAS-20 and wives' Relationship Dissatisfaction (Eid & Boucher, 2012; Frye-Cox & Hesse, 2013), husbands' DIF and wives' Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012), and husbands' DDF and wives' Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012). There were no significant associations found between husbands' EOT and wives' Relationship Dissatisfaction (Eid & Boucher, 2012).

For wives, significant positive correlations were found between their TAS-20 and husbands' Relationship Dissatisfaction (Foran et al., 2012; Frye-Cox and Hesse, 2013), and between wives' DIF and husbands' Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008). No significant associations were found between wives' TAS-20 and husbands' Relationship Dissatisfaction (Eid & Boucher, 2012), wives DIF and husbands' Relationship Dissatisfaction (Eid & Boucher, 2012), wives DDF and husbands' Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012), or between wives' EOT and husbands' Relationship Dissatisfaction (Eid & Boucher, 2012).

Current Study Findings

As seen in Table 13, there were significant negative correlations between husbands' TAS-20 total and wives' Empathy Provided, and Empathy Received, and positive correlations with wives' Relationship Dissatisfaction. Husbands' DIF was negatively

correlated with wives' Empathy Received, and positively related to wives' Relationship Dissatisfaction. Husbands' DDF was negatively correlated with wives' Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and positively associated with wives' Turn Away, Turn Against, and Relationship Dissatisfaction. Husbands' EOT was not associated with any of the wives' outcome variables.

For wives', the only significant finding was a negative correlation between their DDF and husbands' Empathy Received.

Summary

Husbands and wives were significantly positively correlated on DIF and on EOT, but not on the TAS-20 or on DDF.

Husbands and wives were significantly positively related on each of the outcome variables.

Cross-analyses found that most of the spouses' outcome variables were significantly associated (in the expected positive and negative directions) with the other outcome variables, with the exceptions of husbands' Empathy Provided and wives' Turn Toward, and husbands' Turn Against and wives' Turn Toward, and Turn Away, which were not significantly correlated.

Correlations between the alexithymia and outcome variables indicated that husbands and wives were significantly related in the following ways:

Husbands' total alexithymia (TAS-20) was associated with lower Empathy Provided and Empathy Received, and higher Relationship Dissatisfaction in wives. Wives' TAS-20 was not significantly associated with any of the husbands' outcome variables.

Husbands' difficulty identifying feelings (DIF) was correlated with lower Empathy Received, and higher Relationship Dissatisfaction in wives. Wives' DIF was not significantly correlated with any of the husbands' outcome variables.

Husbands' difficulty describing feelings (DDF) was related to decreases in wives' Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and increases in their Turn Away, Turn Against, and Relationship Dissatisfaction. Wives' DDF was related to lower Empathy Received for husbands.

Husbands', and wives' externally oriented thinking (EOT) were not associated with each other's outcome variables.

Table 13

Summary of Husbands' and Wives' Interpersonal Correlation Coefficients on all Independent and Outcome Variables

VARIABLE	W TAS	W DIF	W DDF	W EOT	W EP	W ER	W TTow	W TAway	W TAg	W P
H TAS	.10	.08	.05	.08	-.24**	-.24**	-.07	.14	.14	-.13
H DIF	.15	.16*	.09	.07	-.14	-.20**	-.04	.08	.13	-.11
H DDF	.02	.06	.02	-.04	-.28***	-.27***	-.16*	.22**	.18*	-.21*
H EOT	.04	-.05	.00	.15*	-.14	-.08	.03	.05	-.00	.00
H EP	-.12	-.06	-.14	-.08	.46***	.44***	.11	-.25**	-.28***	.25*
H ER	-.13	-.09	-.16*	-.08	.43***	.44***	.20**	-.36***	-.31***	.39*
H TTow	.04	.00	.06	.03	.32***	.39***	.20**	-.25**	-.19*	.25*
H TAway	.02	.10	-.03	-.02	-.32***	-.42***	-.28***	.25**	.19*	-.32*
H TAg	-.02	-.00	.00	-.05	-.24**	-.23**	-.13	.09	.17*	-.18*
H PEC	.01	-.02	-.03	.07	.31***	.41***	.29***	-.39***	-.27***	.37*
H RD	.05	.14	.05	-.07	-.28***	-.42***	-.24**	.27***	.30***	-.28*

Note. $N = 170$ couples. W = wives, H = husbands. TAS = TAS-20 total alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally-oriented thinking; EP = empathy provided; ER = empathy received; TTow = turn toward; TAway = turn away; TAg = turn against; PEC = positive emotional connection; RD = global relationship dissatisfaction.

* $p < .05$. ** $p < .01$. *** $p < .001$. All tests are two-tailed.

Following the correlational examination of husbands' and wives' variables, the next phase involved examining alexithymia in a way that enabled assessment of the variables' interactive influences between the couple partners. This was necessary because although purely correlational methods are of value in gaining information about the way in which variables are associated, they are not able to capture, and account for, the complexity and interdependence of dyadic data. The analysis deemed most applicable was the Actor-Partner Interdependence Model (APIM), which is detailed in Kenny et al. (2006, pp. 144-184) and briefly outlined below.

Phase Two - APIM

The APIM is an approach that was designed to facilitate analysis of data from dyads and groups. When applied to data from heterosexual couples, it is based on the concept that individuals can be influenced as much by their own characteristics as by their partner's characteristics. Hence, this model can take into account both individual (intrapersonal) and mutual (interpersonal) influences, as well as the effects of the distinguishing gender variable. This represents an expansion of relational models of research whereby a purely individualistic approach is taken (Kenny et al., 2006).

As the APIM name implies, there can be *actor* effects, *partner* effects, and *actor-partner* interactions. When there is an actor effect, a person's own outcome score is affected by his or her own predictor variable. As such, with male and female dyad members, there is a potential for two actor effects – one for the male and one for the female (Kenny et al., 2006, pp. 145-148). For example, a husband's alexithymia (predictor) may influence only his own relationship dissatisfaction (outcome), and/or a wife's alexithymia (predictor) may influence only her own relationship dissatisfaction.

When there is a partner effect, there is evidence that something interpersonal or relational has taken place between the couple because it shows that a person's outcome score is influenced by his or her partner's score on a predictor variable. Again, there is a potential for two partner effects – one for the male's predictor score influencing the female's outcome, and one for the female's predictor score influencing the male's outcome (Kenny et al., 2006, pp. 145-148). For example, a husband's alexithymia may influence his wife's relationship dissatisfaction, and/or a wife's alexithymia may influence her husband's relationship dissatisfaction. As Kenny and Cook (1999) expressed, "the partner

effect is like a love song, perhaps a country-and-western one, which says ‘I am who I am because of something about you’” (p. 435).

Additionally, there may be an actor-partner interaction whereby a person’s outcome is affected as much by his or her own predictor score as by his or her partner’s predictor score (Kenny et al., 2006, p. 148). For example, husband’s relationship dissatisfaction may be influenced equally by both his own alexithymia and his wife’s alexithymia, and a wife’s relationship dissatisfaction may be influenced equally by both her own alexithymia and her husband’s alexithymia. Gender interactions may be tested to assess the degree of differences in the size of the actor and/or partner effects across males and females. That is, whether the relationship between the predictor and outcome differs for males and females.

As noted earlier with regard to the previous research with alexithymia and couples’ relationship dissatisfaction, three of the studies addressed data relatedness through incorporating the APIM into their analyses (i.e., Eid & Boucher, 2012; Frye & Feistman, 2010; Frye-Cox & Hesse, 2013). This research included samples of intact couples who were in dating, cohabiting, or marital relationships, and assessed personal and mutual influences of partners’ alexithymia variables on their relationship dissatisfaction; however, there was variation in the analytic strategies utilised in these studies.

Frye and Feistman (2010) used the APIM within path analysis to test actor and partner effects for the TAS-20 and relationship dissatisfaction. Eid and Boucher (2012) used the APIM within Structural Equation Modeling (SEM) to test actor and partner effects for the TAS-20, DIF, DDF, and EOT and relationship dissatisfaction, and to compare the findings from the APIM technique to those based on simple correlational analyses. Frye-Cox and Hesse (2013) also used the APIM within SEM to test actor and partner effects for the TAS-20 and relationship dissatisfaction.

Frye and Feistman (2010) found actor and partner effects for males, indicating that their own and their partner’s TAS-20 predicted their relationship dissatisfaction. No significant actor or partner effects were found for females, indicating that females’ relationship dissatisfaction is not influenced by their own or their partner’s TAS-20.

Eid and Boucher (2012) found significant actor and partner effects for husbands and wives. The actor effects indicated that husbands’ TAS-20 and DDF predicted their own relationship dissatisfaction, and wives’ TAS-20, DIF, and DDF predicted their own relationship dissatisfaction. Partner effects indicated that husbands’ TAS-20, DIF, and

DDF predicted wives' relationship dissatisfaction, and wives' DDF predicted husbands' relationship dissatisfaction. There were no significant findings for either gender for EOT. Furthermore, there were no significant interaction effects (i.e., differences) between husbands and wives for the actor or partner effects of the TAS-20, DIF, or DDF on relationship dissatisfaction.

Comparisons conducted by Eid and Boucher (2012) between the APIM findings and the correlational findings suggested that the two statistical techniques yielded similar results. The only exception was the significant APIM partner effect of wives' DDF on husbands' relationship dissatisfaction, which did not reach significance when tested via correlation. The authors concluded that although few differences were found between the two different statistical techniques, "the inference tests are more robust with the APIM, rendering detection of significance more accurate" (Eid & Boucher, 2012, p. 1105).

The findings by Frye-Cox and Hesse (2013) indicated that there were significant actor and partner effects for both husbands and wives, with their TAS-20 predicting their own, and each other's relationship dissatisfaction.

The Current Study

The APIM approach was utilised to examine whether the TAS-20, DIF, DDF, and EOT are significant predictors of husbands' and wives' actor and partner effects on Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction.

Based on the aims of the current study, and the results from the previous studies, the following research questions and hypotheses were formulated and analysed:

Research Questions and Hypotheses

Based on the current study:

- RQ1. Do the TAS-20, DIF, DDF, and/or EOT predict husbands' and wives' actor and partner effects on Empathy Provided, and are there interactive effects?
- RQ2. Do the TAS-20, DIF, DDF, and/or EOT predict husbands' and wives' actor and partner effects on Empathy Received, and are there interactive effects?

- RQ3. Do the TAS-20, DIF, DDF, and/or EOT predict husbands' and wives' actor and partner effects on the emotional connection variables of Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection, and are there interactive effects?
- RQ4. Does EOT predict actor and partner effects for husbands' and wives' Relationship Dissatisfaction, and are there interactive effects?

Based on the previous research findings:

- H1a. The TAS-20 will predict husbands' and wives' actor effects on Relationship Dissatisfaction (e.g., Eid & Boucher, 2012; Frye & Feistman, 2010; Frye-Cox & Hesse, 2013).
- H1b. The TAS-20 will predict husbands' and wives' partner effects on Relationship Dissatisfaction (e.g., Frye & Feistman, 2010; Frye-Cox & Hesse, 2013).
- H2a. DIF will predict wives', but not husbands', actor effects on Relationship Dissatisfaction (e.g., Eid & Boucher, 2012).
- H2b. DIF will predict wives', but not husbands', partner effects on Relationship Dissatisfaction (e.g., Eid & Boucher, 2012).
- H3a. DDF will predict husbands' and wives' actor effects on Relationship Dissatisfaction (e.g., Eid & Boucher, 2012).
- H3b. DDF will predict husbands' and wives' partner effects on Relationship Dissatisfaction (e.g., Eid & Boucher, 2012).

Overview of the Analytic Design

To estimate the actor effects, partner effects, and actor-partner gender interactions, the data analysis involved use of the pairwise data set (double-entry format) to conduct multilevel mixed effects (MLM) regressions. When analysing actor and partner effects, and interactions, “the units of measurement of the predictor variables are always an important consideration, but this is especially true in MLM” (Kenny et al., 2006, p. 94).

Of importance in MLM is that a predictor variable has a ‘neutral point’ or a meaningful zero that can be empirically defined and used as the basis against which a person’s scores can be tested. For instance, if a measure of quality of life interacts with a partner’s anxiety, one could compute at what value of quality of life the partner effect for anxiety is zero, and that value would be the neutral point of the quality of life measure. Hence, a person scoring at or near the neutral or zero point would be more actor-oriented (that is, the partner’s anxiety has no effect on the person’s quality of life), and a person scoring higher than the neutral point would be more partner oriented (that is, the partner’s anxiety has an effect on the person’s quality of life) (Kenny & Cook, 1999, p. 437).

Therefore, if a predictor variable does not have a true zero, it is recommended that a meaningful value be formed via the process of grand mean centering (GMC). Grand mean centering “refers to the subtraction of the grand mean from the scores so that the transformed scores would have a mean of zero” (Kenny et al., 2006, p. 110). This entails computing the mean of the combined male and female (X_1 and X_2) predictor variable scores to produce a grand mean, and then subtracting that grand mean from all of the X scores (p. 152). The concept of GMC is also supported by Louis (2009) who proposed that such centering is a preferable step to take within all moderated multiple regression models as it increases the interpretability of coefficients and the constant.

In considering the predictor measures, it is clear that the TAS-20, and by extension the DIF, DDF, and EOT factor subscales, do not have true zero points. Thus, in preparation for the regression analyses, participants’ scores on these variables were grand mean centered, with the mean being centered across the combined scores for husbands and wives.

In the analyses, three regression models were derived. The first model estimated the actor effects and the partner effects, and an example of the SPSS syntax used in model one is as follows:

```
MIXED
DV WITH GMC_ACTOR_IV GMC_PARTNER_IV
/FIXED = GMC_ACTOR_IV GMC_PARTNER_IV
/PRINT = SOLUTION TESTCOV
/REPEATED = Gender | SUBJECT (Dyad) COVTYPE(CSH).
```

The second regression model was derived to test the actor-partner gender interactions. In constructing the second model, thought needed to be given to the gender coding system to be used. Statistical literature indicates that when forming a variable that requires binary

coding, such as gender, different coding systems may be utilised; for example, dummy coding with values of 0 and 1, or contrast coding with values such as 1 and 2 may be assigned to reflect the two genders (Field, 2009; Louis, 2009). However, within dyadic data regression analysis formulation, there are strong recommendations for applying the contrast codes of 1 and -1 (Kenny et al., 2006, p. 174). Rationales for applying these contrast codes suggest that they improve the interpretability of the intercept and the coefficients (Campbell & Kashy, 2002, Cohen & Cohen, 1983), and that assigning the groups with a direction coding also assists with interpreting the meaning of significant differences between the groups (Louis, 2009).

Pilot testing of the different coding combinations of 0 and 1, 1 and 2, and 1 and -1 indicated that there were no differences in the *p* values. Therefore, the decision was made to utilise the recommended contrast coding system of 1 and -1 to distinguish gender, with the values of '1' assigned for males and '-1' assigned for females. In this model, the main actor and partner effects were controlled, and because the dyad members were distinguishable from one another in terms of gender, the intercepts from the regressions were retained. An example of the SPSS syntax used for model two is as follows:

```
MIXED
DV WITH GMC_ACTOR_IV GMC_PARTNER_IV Gender
/FIXED = GMC_ACTOR_IV GMC_PARTNER_IV Gender
        GMC_ACTOR_IV*Gender GMC_PARTNER_IV*Gender
/PRINT = SOLUTION TESTCOV
/REPEATED = Gender | SUBJECT (Dyad) COVTYPE(CSH).
```

Although the second regression model provided a direct test of actor and partner gender interactions, it did not enable clear distinctions of whether the actor and partner effects pertained to males and/or females. Therefore, a third regression model was derived to enhance the interpretation of any such effects by utilising an alternative multilevel approach called the two-intercept model (Kenny et al., 2006, p. 176).

The two-intercept model is designed to compute and identify each possible effect within and between actors and partners. To enable such computations, two dummy variables were created to account for gender, with one titled Male (Male = 1, 0 if otherwise) and one titled Female (Female = 1, 0 if otherwise). This allowed for separate estimations of males' actor effects and males' partner effects, and females' actor effects and females' partner effects, thereby clarifying the individual and interactional effects that were specific to each

gender. As suggested by Kenny et al. (2006), an advantage of utilising the two-intercept model is that “actor and partner effects for men and women can be read directly from the output, and no hand computations are required” (p. 176). As also recommended by Kenny et al. (p. 176), because of the coding method required when including the two additional dummy variables, the intercept was dropped from this model. An example of the SPSS syntax used in model three is as follows:

```
MIXED
DV WITH MALE FEMALE GMC_ACTOR_IV GMC_PARTNER_IV
/FIXED = MALE FEMALE GMC_ACTOR_IV*MALE
          GMC_ACTOR_IV*FEMALE
          GMC_PARTNER_IV*MALE
          GMC_PARTNER_IV*FEMALE | NOINT
/PRINT = SOLUTION TESTCOV
/REPEATED = Gender | SUBJECT (Dyad) COVTYPE(CSH).
```

Therefore, within the APIM analyses, actor and partner effects were tested, and the actor and partner effects were controlled whilst actor-partner gender interactions were estimated. The two-intercept analyses were utilised on significant actor-partner gender interactions to enable identification of these effects for each gender.

Reporting of the Results

The results reported below are presented in four sections, each of which represents the actor, partner, and actor-partner gender interaction effects on each of the four alexithymia-related predictor variables and the seven outcome variables. Findings for the two-intercept analyses are presented as applicable. To clarify, the predictor variables are the TAS-20 total alexithymia scale, and the DIF, DDF, and EOT subscales. The outcome variables are Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction.

The findings are reported in text and table by actor effects, partner effects, and actor and partner gender interactions. Where there was a significant actor and/or partner effect but no significant gender interaction, the main effects could be interpreted unambiguously. Where gender interacted significantly with the actor and/or partner effects (and the main effect was therefore compromised by the interaction), the interaction superseded the main effect. To identify the separate effects for husbands and wives, significant gender interactions were examined further through use of the two-intercept model.

Within the tables, the reported data include the F value, dfs (degrees of freedom), p (significance value), b (unstandardised regression coefficient), and CI (95% confidence interval values of lower limit to upper limit). The alpha level was initially set at .05; however, due to the number of outcome measures and analyses computed, an adjusted significance level was required to control for the Familywise error rate.

When considering the number of measures, and the impact on the findings of the adjusted alpha level, it is noteworthy that the GRQ questionnaire unexpectedly added to the number of outcomes analysed. Where it was initially intended to be analysed as a single (emotional connection) construct, the GRQ factor analysis indicated that the instrument taps into four distinct dimensions. Therefore, an additional three measures needed to be included in all of the tests. To maintain research rigour, the Bonferroni correction method was chosen (Field, 2009; Tabachnick & Fidell, 1996).

Bonferroni Adjustment

To apply the Bonferroni adjustment, the analyses were partitioned into groups corresponding to the TAS-20, DIF, DDF, and EOT predictors, and the per-test alpha level (.05) was divided by the number of outcome variables (that is, seven). This resulted in an adjusted alpha level of .0071 against which the results were evaluated. The results are presented in the next section.

Results

Total Alexithymia Scale (TAS-20) as the Predictor

Empathy Provided Outcome

As shown in Table 14, there was a significant negative actor main effect and a significant negative partner main effect, neither of which varied (interacted) as a function of gender. The actor effect indicates that an increase in husbands' and wives' own total alexithymia predicted a decrease in their own Empathy Provided; the partner effect indicates that an increase in partners' total alexithymia also predicted a decrease in the other persons' Empathy Provided.

Table 14

APIM Estimates for TAS-20 Total and Empathy Provided

Empathy Provided	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	76.555	1, 287.837	<.001	-0.428	-0.525	-0.332
Partner main effect	9.471	1, 296.504	.002	-0.152	-0.249	-0.054
Actor gender interaction	3.029	1, 263.322	.083	-0.091	-0.195	0.012
Partner gender interaction	1.922	1, 268.240	.167	0.072	-0.030	0.175

Note. *N* = 170 husbands and 170 wives.

p = .0071

Empathy Received Outcome

As shown in Table 15, there was a significant negative actor main effect and a significant negative partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own total alexithymia predicted a decrease in their own Empathy Received; the partner effect indicates that an increase in partners' total alexithymia also predicted a decrease in the other persons' Empathy Received.

Table 15***APIM Estimates for TAS-20 Total and Empathy Received***

Empathy Received	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	46.729	1, 293.854	<.001	-0.469	-0.604	-0.334
Partner main effect	14.424	1, 307.946	<.001	-0.263	-0.400	-0.127
Actor gender interaction	2.253	1, 265.559	.135	-0.110	-0.255	0.034
Partner gender interaction	1.703	1, 273.593	.193	0.094	-0.048	0.238

Note. *N* = 170 husbands and 170 wives.

p = .0071

Turn Toward Outcome

As shown in Table 16, there was a significant negative actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own total alexithymia predicted a decrease in their own Turn Toward; the lack of a partner effect indicates that partners' total alexithymia did not predict the other persons' Turn Toward.

Table 16***APIM Estimates for TAS-20 Total and Turn Toward***

Turn Toward	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	15.689	1, 311.241	<.001	-0.012	-0.019	-0.006
Partner main effect	0.001	1, 324.636	.979	0.000	-0.006	0.006
Actor gender interaction	1.630	1, 290.775	.203	-0.004	-0.011	0.002
Partner gender interaction	1.529	1, 301.945	.217	0.004	-0.002	0.011

Note. *N* = 170 husbands and 170 wives.

p = .0071

Turn Away Outcome

As shown in Table 17, there was a significant positive actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own total alexithymia predicted

an increase in their own Turn Away; the lack of a partner effect indicates that partners' total alexithymia did not predict each other's Turn Away.

Table 17

APIM Estimates for TAS-20 Total and Turn Away

Turn Away	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	24.504	1, 326.116	<.001	0.018	0.010	0.025
Partner main effect	1.191	1, 320.035	.276	0.003	-0.003	0.011
Actor gender interaction	2.811	1, 302.230	.095	0.006	-0.001	0.013
Partner gender interaction	1.387	1, 297.254	.240	-0.004	-0.012	0.003

Note. *N* = 170 husbands and 170 wives.

p = .0071

Turn Against Outcome

As shown in Table 18, there was a significant positive actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own total alexithymia predicted an increase in their own Turn Against; the lack of a partner effect indicates that partners' total alexithymia did not predict the other persons' Turn Against.

Table 18

APIM Estimates for TAS-20 Total and Turn Against

Turn Against	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	21.793	1, 332.875	<.001	0.021	0.012	0.030
Partner main effect	0.329	1, 325.745	.567	0.002	-0.006	0.011
Actor gender interaction	0.010	1, 312.115	.921	0.000	-0.009	0.010
Partner gender interaction	2.208	1, 305.770	.138	-0.007	-0.016	0.002

Note. *N* = 170 husbands and 170 wives.

p = .0071

Positive Emotional Connection Outcome

As seen in Table 19, a significant negative actor main effect and a non-significant partner main effect were found, which did not vary by gender. The actor effect indicates

that an increase in husbands' and wives' own total alexithymia predicted a decrease in their own Positive Emotional Connection; the lack of a partner effect indicates that partners' total alexithymia did not predict the other persons' Positive Emotional Connection.

Table 19

APIM Estimates for TAS-20 Total and Positive Emotional Connection

Positive Emotional Connection	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	19.072	1, 297.779	<.001	-0.014	-0.021	-0.008
Partner main effect	0.962	1, 306.792	.327	-0.003	-0.009	0.003
Actor gender interaction	0.016	1, 269.887	.898	0.000	-0.006	0.007
Partner gender interaction	1.955	1, 275.337	.163	0.004	-0.002	0.012

Note. *N* = 170 husbands and 170 wives.

p = .0071

Relationship Dissatisfaction Outcome

As shown in Table 20, there was a significant positive actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own total alexithymia predicted an increase in their own Relationship Dissatisfaction; the lack of a partner effect indicates that partners' total alexithymia did not predict the other persons' Relationship Dissatisfaction.

Table 20

APIM Estimates for TAS-20 Total and Relationship Dissatisfaction

Relationship Dissatisfaction	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	29.024	1, 258.348	<.001	0.191	0.121	0.260
Partner main effect	4.559	1, 247.577	.034	0.074	0.005	0.143
Actor gender interaction	0.001	1, 232.014	.981	0.000	-0.075	0.077
Partner gender interaction	0.848	1, 228.126	.358	-0.036	-0.113	0.041

Note. *N* = 170 husbands and 170 wives.

p = .0071

Summary

Husbands', and wives', own total alexithymia (TAS-20) significantly predicted all of their own outcome variables; that is, decreased Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and increased Turn Away, Turn Against and Relationship Dissatisfaction.

Couple partners' TAS-20 significantly predicted a decrease in their spouses' Empathy Provided and Empathy Received. Partners' TAS-20 was not predictive of their spouses' Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction.

Husbands and wives did not differ significantly on any of the actor or partner effects.

Difficulty Identifying Feelings (DIF) as the Predictor

Empathy Provided Outcome

As shown in Table 21, there was a significant negative actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own DIF predicted a decrease in their own Empathy Provided; the lack of a partner effect indicates that partners' DIF did not predict the other persons' Empathy Provided.

Table 21

APIM Estimates for DIF and Empathy Provided

Empathy Provided	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	53.135	1, 294.394	<.001	-0.739	-0.939	-0.540
Partner main effect	0.988	1, 301.965	.321	-0.101	-0.302	-0.099
Actor gender interaction	1.743	1, 244.904	.188	-0.146	-0.366	0.072
Partner gender interaction	0.975	1, 247.364	.324	0.109	-0.108	0.327

Note. *N* = 170 husbands and 170 wives.

p = .0071

Empathy Received Outcome

As shown in Table 22, there was a significant negative actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own DIF predicted a decrease in their own Empathy Received; the lack of a partner effect indicates that partners' DIF did not predict the other persons' Empathy Received.

Table 22

APIM Estimates for DIF and Empathy Received

Empathy Received	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	45.894	1, 303.106	<.001	-0.943	-1.217	-0.669
Partner main effect	3.180	1, 315.501	.076	-0.250	-0.527	0.025
Actor gender interaction	0.506	1, 253.222	.477	-0.107	-0.405	0.190
Partner gender interaction	1.724	1, 257.748	.190	0.196	-0.098	0.492

Note. *N* = 170 husbands and 170 wives.

p = .0071

Turn Toward Outcome

As shown in Table 23, there was a significant negative actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own DIF predicted a decrease in their own Turn Toward; the lack of a partner effect indicates that partners' DIF did not predict the other persons' Turn Toward.

Table 23***APIM Estimates for DIF and Turn Toward***

Turn Toward	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	10.008	1, 320.489	.002	-0.020	-0.033	-0.007
Partner main effect	0.040	1, 332.149	.841	0.001	-0.011	0.014
Actor gender interaction	0.000	1, 285.368	.991	0.000	-0.013	0.013
Partner gender interaction	0.288	1, 292.795	.592	0.003	-0.009	0.017

Note. *N* = 170 husbands and 170 wives.
p = .0071

Turn Away Outcome

As shown in Table 24, there was a significant positive actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own DIF predicted an increase in their own Turn Away; the lack of a partner effect indicates that partners' DIF did not predict the other persons' Turn Away.

Table 24***APIM Estimates for DIF and Turn Away***

Turn Away	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	19.172	1, 334.520	<.001	0.032	0.017	0.047
Partner main effect	0.904	1, 326.965	.343	0.007	-0.007	0.021
Actor gender interaction	0.497	1, 289.700	.481	0.005	-0.009	0.020
Partner gender interaction	0.021	1, 285.154	.885	0.001	-0.014	0.016

Note. *N* = 170 husbands and 170 wives.
p = .0071

Turn Against Outcome

As shown in Table 25, there was a significant positive actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own DIF predicted an increase in

their own Turn Against; the lack of a partner effect indicates that partners' DIF did not predict the other persons' Turn Against.

Table 25

APIM Estimates for DIF and Turn Against

Turn Against	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	9.216	1, 336.062	.003	0.029	0.010	0.047
Partner main effect	0.674	1, 327.895	.412	0.007	-0.010	0.026
Actor gender interaction	0.157	1, 302.713	.692	-0.003	-0.023	0.015
Partner gender interaction	1.424	1, 296.153	.234	-0.011	-0.031	0.007

Note. *N* = 170 husbands and 170 wives.

p = .0071

Positive Emotional Connection Outcome

As shown in Table 26, there was a significant negative actor main effect, and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own DIF predicted a decrease in their own Positive Emotional Connection; the lack of a partner effect indicates that partners' DIF did not predict the other persons' Positive Emotional Connection.

Table 26

APIM Estimates for DIF and Positive Emotional Connection

Positive Emotional Connection	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	12.572	1, 313.061	<.001	-0.024	-0.037	-0.010
Partner main effect	0.456	1, 321.381	.500	-0.004	-0.018	0.008
Actor gender interaction	0.982	1, 261.899	.323	0.007	-0.007	0.021
Partner gender interaction	0.532	1, 265.332	.466	0.005	-0.009	0.019

Note. *N* = 170 husbands and 170 wives.

p = .0071

Relationship Dissatisfaction Outcome

As shown in Table 27, there was a significant positive actor main effect and a non-significant partner main effect, neither of which varied as a function of gender. The actor effect indicates that an increase in husbands' and wives' own DIF predicted an increase in their own Relationship Dissatisfaction; the lack of a partner effect indicates that partners' DIF did not predict the other persons' Relationship Dissatisfaction.

Table 27

APIM Estimates for DIF and Relationship Dissatisfaction

Relationship	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	26.289	1, 275.878	<.001	0.359	0.221	0.497
Partner main effect	4.998	1, 264.538	.026	0.154	0.018	0.291
Actor gender interaction	0.229	1, 227.159	.633	-0.037	-0.192	0.117
Partner gender interaction	0.026	1, 224.004	.837	0.012	-0.143	0.169

Note. *N* = 170 husbands and 170 wives.
p = .0071

Summary

Husbands', and wives', own *Difficulty Identifying Feelings* (DIF) significantly predicted all of their own outcome variables; that is, decreased Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and increased Turn Away, Turn Against, and Relationship Dissatisfaction.

Couple partners' DIF was not a predictor of their spouses' outcome variables.

Husbands and wives did not differ significantly on any of the actor or partner effects.

Difficulty Describing Feelings (DDF) as the Predictor

Empathy Provided Outcome

As shown in Table 28, there was a significant negative actor main effect and a significant negative partner main effect, neither of which varied by gender. The actor effect indicates that an increase in husbands' and wives' own DDF predicted a decrease in their own Empathy Provided; the partner effect indicates that an increase in partners' DDF also predicted a decrease in the other persons' Empathy Provided.

Table 28

APIM Estimates for DDF and Empathy Provided

Empathy Provided	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	61.505	1, 274.524	<.001	-1.069	-1.337	-0.800
Partner main effect	19.573	1, 286.685	<.001	-0.610	-0.882	-0.338
Actor gender interaction	0.787	1, 276.281	.376	-0.129	-0.415	0.157
Partner gender interaction	1.603	1, 286.778	.206	0.181	-0.100	0.464

Note. *N* = 170 husbands and 170 wives.

p = .0071

Empathy Received Outcome

As shown in Table 29, there was a significant negative actor main effect and a significant negative partner main effect, neither of which varied by gender. The actor effect indicates that an increase in husbands' and wives' own DDF predicted a decrease in their own Empathy Received; the partner effect indicates that an increase in partners' DDF also predicted a decrease in the other persons' Empathy Received.

Table 29***APIM Estimates for DDF and Empathy Received***

Empathy Received	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	42.974	1, 276.473	<.001	-1.223	-1.591	-0.856
Partner main effect	26.600	1, 302.855	<.001	-0.987	-1.364	-0.611
Actor gender interaction	0.491	1, 272.169	.484	-0.141	-0.538	0.255
Partner gender interaction	1.125	1, 294.291	.290	0.208	-0.178	0.594

Note. *N* = 170 husbands and 170 wives.
p = .0071

Turn Toward Outcome

As shown in Table 30, there was a significant negative actor main effect, and a non-significant partner main effect, neither of which varied by gender. The actor effect indicates that an increase in husbands' and wives' own DDF predicted a decrease in their own Turn Toward; the lack of a partner effect indicates that partners' DDF did not predict the other persons' Turn Toward.

Table 30***APIM Estimates for DDF and Turn Toward***

Turn Toward	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	13.256	1, 290.748	<.001	-0.031	-0.049	-0.014
Partner main effect	1.079	1, 320.799	.300	-0.009	-0.027	0.008
Actor gender interaction	3.197	1, 289.158	.075	-0.017	-0.036	0.001
Partner gender interaction	5.154	1, 321.120	.024	0.021	0.002	0.039

Note. *N* = 170 husbands and 170 wives.
p = .0071

Turn Away Outcome

As shown in Table 31, there was a significant positive actor main effect, and a non-significant partner main effect, neither of which varied by gender. The actor effect indicates that an increase in husbands' and wives' own DDF predicted an increase in their

own Turn Away; the lack of a partner effect indicates that partners' DDF did not predict the other persons' Turn Away.

Table 31

APIM Estimates for DDF and Turn Away

Turn Toward	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	18.960	1, 313.328	<.001	0.044	0.024	0.064
Partner main effect	3.270	1, 296.359	.072	0.018	-0.001	0.037
Actor gender interaction	2.062	1, 314.439	.152	-0.015	-0.005	0.035
Partner gender interaction	5.013	1, 296.658	.026	-0.023	-0.044	-0.002

Note. *N* = 170 husbands and 170 wives.
p = .0071

Turn Against Outcome

As shown in Table 32, there was a significant positive actor main effect, and a non-significant partner main effect, neither of which varied by gender. The actor effect indicates that an increase in husbands' and wives' own DDF predicted an increase in their own Turn Against; the lack of a partner effect indicates that partners' DDF did not predict the other persons' Turn Against.

Table 32

APIM Estimates for DDF and Turn Against

Turn Against	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	13.787	1, 323.850	<.001	0.047	0.022	0.073
Partner main effect	2.701	1, 308.346	.101	0.020	-0.004	0.045
Actor gender interaction	0.141	1, 322.824	.708	0.005	-0.021	0.031
Partner gender interaction	2.278	1, 305.256	.132	-0.020	-0.047	0.006

Note. *N* = 170 husbands and 170 wives.
p = .0071

Positive Emotional Connection Outcome

As shown in Table 33, there was a significant negative actor main effect and a non-significant partner main effect, neither of which varied by gender. The actor effect

indicates that an increase in husbands' and wives' own DDF predicted a decrease in their own Positive Emotional Connection; the lack of a partner effect indicates that partners' DDF did not predict the other persons' Positive Emotional Connection.

Table 33

APIM Estimates for DDF and Positive Emotional Connection

Positive Emotional Connection	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	20.897	1, 280.580	<.001	-0.041	-0.059	-0.023
Partner main effect	7.023	1, 297.318	.008	-0.024	-0.042	0.006
Actor gender interaction	0.355	1, 278.788	.552	0.005	-0.013	0.025
Partner gender interaction	2.747	1, 293.518	.098	0.015	-0.002	0.034

Note. *N* = 170 husbands and 170 wives.
p = .0071

Relationship Dissatisfaction Outcome

As shown in Table 34, there was a significant positive actor main effect and a significant positive partner main effect, neither of which varied by gender. The actor effect indicates that an increase in husbands' and wives' own DDF predicted an increase in their own Relationship Dissatisfaction; the partner effect indicates that an increase in partners' DDF also predicted an increase in the other persons' Relationship Dissatisfaction.

Table 34

APIM Estimates for DDF and Relationship Dissatisfaction

Relationship Dissatisfaction	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	31.608	1, 252.667	<.001	0.555	0.360	0.749
Partner main effect	9.658	1, 227.087	.002	0.297	0.108	0.486
Actor gender interaction	0.325	1, 243.833	.569	-0.059	-0.262	0.144
Partner gender interaction	1.074	1, 230.651	.301	-0.110	-0.321	0.099

Note. *N* = 170 husbands and 170 wives.
p = .0071

Summary

Husbands', and wives', *Difficulty Describing Feelings* (DDF) significantly predicted all of their own outcome variables; that is, decreased Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and increased Turn Away, Turn Against, and Relationship Dissatisfaction.

Couple partners' DDF significantly predicted a decrease in their spouses' Empathy Provided and Empathy Received, and an increase in Relationship Dissatisfaction; there were no partner effects for Turn Toward, Turn Away, Turn Against, or Positive Emotional Connection.

Husbands and wives did not differ significantly on any of the actor or partner effects.

Externally Oriented Thinking (EOT) as Predictor

Empathy Provided Outcome

As shown in Table 35, there was a significant negative actor main effect and a non-significant partner main effect, neither of which varied by gender. The actor effect indicates that an increase in husbands' and wives' own EOT predicted a decrease in their own Empathy Provided; the lack of a partner effect indicates that partners' EOT did not predict the other persons' Empathy Provided.

Table 35

APIM Estimates for EOT and Empathy Provided

Empathy Provided	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	19.980	1, 295.676	<.001	-0.550	-0.792	-0.308
Partner main effect	2.613	1, 293.318	.107	-0.198	-0.440	-0.043
Actor gender interaction	1.854	1, 253.386	.175	-0.182	-0.447	0.081
Partner gender interaction	0.596	1, 252.341	.441	0.103	-0.161	0.369

Note. *N* = 170 husbands and 170 wives.
p = .0071

Empathy Received Outcome

As shown in Table 36, there were no significant actor or partner main effects, and no variation as a function of gender. These findings indicate that husbands' and wives' EOT did not predict their own, or their partners', Empathy Received.

Table 36

APIM Estimates for EOT and Empathy Received

Empathy Received	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	4.800	1, 302.307	.029	-0.376	-0.714	-0.038
Partner main effect	3.623	1, 297.223	.058	-0.325	-0.661	0.011
Actor gender interaction	2.675	1, 254.746	.103	-0.304	-0.670	0.062
Partner gender interaction	0.146	1, 252.521	.703	0.071	-0.296	0.439

Note. *N* = 170 husbands and 170 wives.

p = .0071

Turn Toward Outcome

As shown in Table 37, there were no significant actor or partner main effects, and no variation as a function of gender. These findings indicate that husbands' and wives' EOT did not predict their own, or their partners', Turn Toward.

Table 37

APIM Estimates for EOT and Turn Toward

Turn Toward	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	6.020	1, 325.825	.015	-0.018	-0.033	-0.003
Partner main effect	0.018	1, 320.095	.397	0.006	-0.008	0.021
Actor gender interaction	1.706	1, 290.576	.193	-0.010	-0.026	0.005
Partner gender interaction	0.018	1, 286.340	.893	0.001	-0.015	0.017

Note. *N* = 170 husbands and 170 wives.

p = .0071

Turn Away Outcome

As shown in Table 38, there were no significant actor or partner main effects, and no variation as a function of gender. These findings indicate that husbands' and wives' EOT did not predict their own, or their partners', Turn Away.

Table 38

APIM Estimates for EOT and Turn Away

Turn Away	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	6.584	1, 323.471	.011	0.022	0.005	0.039
Partner main effect	0.128	1, 326.704	.721	-0.003	-0.020	0.013
Actor gender interaction	2.484	1, 286.028	.116	0.014	-0.003	0.032
Partner gender interaction	0.791	1, 288.269	.374	-0.008	-0.026	0.009

Note. *N* = 170 husbands and 170 wives.

p = .0071

Turn Against Outcome

As shown in Table 39, there was a significant positive actor main effect and a non-significant partner main effect, neither of which varied by gender. The actor effect indicates that an increase in husbands' and wives' own EOT predicted an increase in their own Turn Against; the lack of a partner effect indicates that partners' EOT did not predict the other persons' Turn Against.

Table 39

APIM Estimates for EOT and Turn Against

Turn Against	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	16.968	1, 329.809	<.001	0.044	0.023	0.065
Partner main effect	1.648	1, 332.516	.200	-0.013	-0.035	0.007
Actor gender interaction	0.223	1, 296.347	.637	0.005	-0.017	0.028
Partner gender interaction	0.229	1, 298.465	.633	-0.005	-0.028	0.017

Note. *N* = 170 husbands and 170 wives.

p = .0071

Positive Emotional Connection Outcome

As shown in Table 40, there were no significant actor or partner main effects, and no variation as a function of gender. These findings indicate that husbands' and wives' EOT did not predict their own, or their partners', Positive Emotional Connection.

Table 40

APIM Estimates for EOT and Positive Emotional Connection

Positive Emotional Connection	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	5.377	1, 306.033	.021	-0.018	-0.034	-0.002
Partner main effect	0.685	1, 301.224	.409	0.006	-0.009	0.022
Actor gender interaction	1.313	1, 262.253	.253	-0.009	-0.026	0.007
Partner gender interaction	0.494	1, 259.803	.483	0.006	-0.010	0.023

Note. *N* = 170 husbands and 170 wives.

p = .0071

Relationship Dissatisfaction Outcome

As shown in Table 41, there were no significant actor or partner main effects, and no variation as a function of gender. These findings indicate that husbands' and wives' EOT did not predict their own, or their partners', Relationship Dissatisfaction.

Table 41

APIM Estimates for EOT and Relationship Dissatisfaction

Relationship Dissatisfaction	<i>F</i>	<i>dfs</i>	<i>p</i>	<i>B</i>	95% CI	
					LL	UL
Actor main effect	3.239	1, 255.161	.073	0.151	-0.014	0.317
Partner main effect	0.201	1, 259.536	.654	-0.037	-0.204	0.128
Actor gender interaction	0.606	1, 223.294	.437	0.074	-0.114	0.263
Partner gender interaction	1.470	1, 224.566	.227	-0.115	-0.303	0.072

Note. *N* = 170 husbands and 170 wives.

p = .0071

Summary

Husbands' and wives' *Externally Oriented Thinking* (EOT) significantly predicted a decrease in their own Empathy Provided, and an increase in their Turn Against. There were no actor effects for Empathy Received, Turn Toward, Turn Away, Positive Emotional Connection, or Relationship Dissatisfaction.

Couple partners' EOT was not a significant predictor of any of their spouses' outcomes.

Husbands and wives were not significantly different on any of the actor or partner effects.

Relating the APIM Findings to the Research Questions and Hypotheses

Research Questions:

RQ1. Do the TAS-20, DIF, DDF, and/or EOT predict husbands' and wives' actor and partner effects on Empathy Provided, and are there interactive effects?

Actor Effects: Husbands' and wives' TAS-20, DIF, DDF, and EOT scores predicted a decrease in their own Empathy Provided. There were no significant gender interactions.

Partner Effects: Husbands' and wives' TAS-20 and DDF scores predicted a decrease in the other persons' Empathy Provided. There were no partner effects for DIF or EOT. There were no significant gender interactions.

RQ2. Do the TAS-20, DIF, DDF, and/or EOT predict husbands' and wives' actor and partner effects on Empathy Received, and are there interactive effects?

Actor Effects: Husbands' and wives' TAS-20, DIF, and DDF scores predicted a decrease in their own Empathy Received. There were no actor effects for EOT and Empathy Received. There were no significant gender interactions.

Partner Effects: Husbands' and wives' TAS-20 and DDF scores predicted a decrease in the other persons' Empathy Received. There were no partner effects for DIF or EOT. There were no significant gender interactions.

RQ3. Do the TAS-20, DIF, DDF, and/or EOT predict husbands' and wives' actor and partner effects on Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection, and are there interactive effects?

Actor Effects: Husbands' and wives' TAS-20, DIF, and DDF scores predicted a decrease in their own Turn Toward and Positive Emotional Connection, and an increase in their Turn Away and Turn Against. EOT scores predicted an increase in their Turn Against. There were no EOT actor effects for Turn Toward, Turn Away, or Positive Emotional Connection. There were no significant gender interactions.

Partner Effects: There were no significant partner effects for husbands' or wives' TAS-20, DIF, DDF, or EOT as predictors of the other persons' Turn Toward, Turn Away, Turn Against, or Positive Emotional Connection. There were no significant gender interactions.

RQ4. Does EOT predict actor and partner effects for husbands' and wives' Relationship Dissatisfaction?

Actor Effects: Husbands' and wives' EOT did not predict their own Relationship Dissatisfaction. There were no significant gender interactions.

Partner Effects: There was no significant partner effect for husbands' or wives' EOT as a predictor of the other persons' Relationship Dissatisfaction. There were no significant gender interactions.

Hypotheses Based on Previous Research Findings:

H1a. The TAS-20 will predict actor effects for husbands and for wives on Relationship Dissatisfaction.

This hypothesis was supported by the current study. Significant actor effects were found for husbands' and wives' TAS-20 predicting an increase in their own Relationship Dissatisfaction. This is consistent with Eid and Boucher (2012), Frye and Feistman (2010), and Frye-Cox and Hesse (2013).

H1b. The TAS-20 will predict partner effects for husbands and wives on Relationship Dissatisfaction.

This hypothesis was not supported. No partner effects were found for husbands' or wives' TAS-20 as a predictor of the other persons' Relationship Dissatisfaction. This is in contrast to Frye and Feistman (2010), and Frye-Cox and Hesse (2013). Of interest is that Eid and Boucher (2012) found a partner effect for wives but not for husbands.

H2a. DIF will predict actor effects for wives', but not for husbands' Relationship Dissatisfaction.

The hypothesis was partially supported. Consistent with Eid and Boucher (2012) there was a significant actor effect for wives' DIF predicting an increase in their own Relationship Dissatisfaction.

The hypothesis was not supported for husbands. Contrary to Eid and Boucher (2012), there was a significant actor effect for husbands' DIF predicting an increase in their own Relationship Dissatisfaction.

H2b. DIF will predict partner effects for wives', but not for husbands' Relationship Dissatisfaction.

This hypothesis was partially supported. In contrast to Eid and Boucher (2012), no significant partner effect was found for wives. This indicates that husbands' DIF did not predict wives' Relationship Dissatisfaction.

In support of Eid and Boucher (2012), no partner effect was found for husbands, indicating that wives' DIF did not predict husbands' Relationship Dissatisfaction.

H3a. DDF will predict actor effects for husbands and wives on Relationship Dissatisfaction.

This hypothesis was supported. Significant actor effects were found for husbands' and wives' DDF predicting an increase in their own Relationship Dissatisfaction. This is consistent with Eid and Boucher (2012).

H3b. DDF will predict partner effects for husbands and wives on Relationship Dissatisfaction.

This hypothesis was supported. Significant partner effects were found for husbands' and wives' DDF predicting an increase in the other persons' Relationship Dissatisfaction. This is consistent with Eid and Boucher (2012).

Summary

Research Questions:

The findings for the research questions have strongly suggested that it is husbands' and wives' own total alexithymia (TAS-20), Difficulty Identifying Feelings (DIF), and Difficulty Describing Feelings (DDF) that predict a decrease in their Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and an increase in their Turn Away, Turn Against, and Relationship Dissatisfaction. EOT seems to be the least personally influential factor for both spouses, with its predictive value limited to a decrease in Empathy Provided and an increase in Turn Against.

Couple partners' TAS-20 and DDF predicted a decrease in their spouses' Empathy Provided and Empathy Received; partners' DDF also predicted an increase in each other's Relationship Dissatisfaction.

Hypotheses:

The current study found mixed support for the hypotheses that were based on previous research examining Alexithymia and Relationship Dissatisfaction.

Support was found for most of the hypotheses regarding actor effects. Husbands' and wives' TAS-20 and DDF predicted an increase in their own Relationship Dissatisfaction. DIF predicted an increase in wives' own Relationship Dissatisfaction. However, in contrast to the hypothesis, husbands' DIF also predicted an increase in their own Relationship Dissatisfaction.

Partial support was found for the hypothesised partner effects. No support was found for husbands' and wives' TAS-20 predicting each other's Relationship Dissatisfaction, or for a partner effect of husbands' DIF predicting wives' Relationship Dissatisfaction.

Support was found for the hypothesis that there would be no partner effect of wives' DIF predicting husbands' Relationship Dissatisfaction. Support was also found for husbands' and wives' DDF predicting each other's Relationship Dissatisfaction.

No significant interactive effects were found for any of the variables.

Having examined the personal and mutual influences of alexithymia on the outcome variables, the aim of Phase 3 was to examine spouses' alexithymia-related discrepancies to test the effects of these on their empathy provided, empathy received, turn toward, turn away, turn against, positive emotional connection, and relationship dissatisfaction.

Phase Three

Alexithymia Discrepancies between Couple Partners

The rationales for investigating the influence of couple partners' alexithymia discrepancies were based on Swiller (1988), and Gottman (1999), who both noted the challenges for couples who differ in their emotional capacities. Swiller (1988) highlighted the personal and interpersonal difficulties that can be experienced by a couple when one spouse is highly alexithymic and the other spouse is more emotionally competent; the difficulties appear to centre on the alexithymic partner's lack of empathy, and the couple's decreased relationship satisfaction. Furthermore, Gottman (1999) reported on findings indicating that mismatches alone in marital partners' emotional expression and experience "create problems for marriages and predict divorce with 80% accuracy" (p. 307).

There do not appear to have been any prior studies that have directly investigated the influences of couple partners' TAS-20 and factor discrepancies on relationship based outcomes; however, there has been previous research that is affiliated with this idea, and is therefore applicable to review.

Previous Research

Croyle and Waltz (2002) investigated the effect of couple partners' differences in emotional awareness on the quality of their relationships; this was in terms of their general life situations and relationship-specific situations. Findings indicated that, for both male and female partners, differences in emotional awareness about relationship-specific situations were significantly associated with relationship dissatisfaction. In response to general life situations, no significant discrepancy effect was found for either gender.

Specific to alexithymia, Yelsma and Marrow (2003) tested couple partners' alexithymia-related DIF, DDF, and EOT factor differences and relationship dissatisfaction; however, those differences were examined in terms of the effects on partners' outcomes

when each gender is higher than the other on the alexithymia factors. This means that whilst the *direction* of the differences was investigated, the effects of the discrepancies themselves were not examined.

Furthermore, by analysing the alexithymia factors, and omitting the total TAS-20 scale, the study by Yelsma and Marrow (2003) did not enable information to be gained about the degree of difference that influences partners' relationship dissatisfaction. This is because only the full TAS-20 scale has the empirically established cut-off scores required to provide clear distinctions between the levels of low to high alexithymia. Thus, when examining DIF, DDF, and EOT discrepancies, the findings unavoidably include all points of difference between couple partners, with the extent of that difference unable to be delineated. This leaves a question regarding how the different levels of discrepancy may influence couples' relationship outcomes, which is only possible to answer through utilising the total TAS-20 scale as the predictor variable.

Therefore, in this phase of the current study, examination was conducted of the effect of partners' TAS-20 discrepancy levels on the outcome variables of Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction. The analytical strategy was designed to achieve two aims:

- (1) To examine the impact on husbands', and wives', outcome variables when couple partners have combinations of low, moderate, or high discrepancy levels in total alexithymia;
- (2) To extend this to test the effects when each gender is higher than the other in alexithymia within each category of difference.

This strategy enabled testing of main effects for the levels of alexithymia discrepancies, the gender direction of the discrepancies, and interactions between the levels and the directions. Although the previous theoretical literature and associated research lend some support to the belief that partners' alexithymia discrepancies significantly predict their outcome variables, the lack of specific empirical findings precluded definitive hypotheses.

Therefore, the research questions below were investigated.

Research Questions

- RQ1. Do couple partners' TAS-20 discrepancies predict their Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction?
- RQ2. Are husbands', and wives', outcome variables influenced by the gender directions of husbands having higher TAS-20 scores than wives, or wives having higher TAS-20 scores than husbands?
- RQ3. Are there interactions between husbands', and wives', TAS-20 discrepancy levels and gender directions?

Assessment of Couples' TAS-20 Discrepancies

To assess the effect of couples' total alexithymia discrepancies on their outcome variables, the TAS-20 category levels were computed in terms of low (score of ≤ 51) and high (score of ≥ 61) levels of alexithymia (e.g., Bagby & Taylor, 1997b). Although the TAS-20 scoring protocol does not specify a "moderate" range, for the purposes of this study, a moderate category was formed; this category accounted for scores between the low and high cut-off points, which produces a score range of 52 to 60 inclusive.

To examine husbands', and wives', alexithymia levels, frequencies were computed. As seen in Table 42, there were a greater number of wives than husbands in the low category, and a greater number of husbands than wives in the moderate and the high categories. This is aligned with the earlier overall finding of alexithymia being higher in husbands than wives.

Table 42***TAS-20 Total Scale Levels and Percentages for Husbands and Wives***

Percent	Husbands' Frequency	Husbands' Percent	Wives' Frequency	Wives' Percent
Low	115	67.6	136	80.0
Moderate	36	21.2	25	14.7
High	19	11.2	9	5.3

Note: $N = 170$ couples.

To explore the alexithymia discrepancies between couple partners, case processing summaries were computed to ascertain the levels at which couples differed on the TAS-20 total scale. As seen in Table 43, there were 94 couples at the discrepancy level of low-low, 47 couples at low-moderate, 16 couples at low-high, 6 couples at moderate-moderate, 2 couples at moderate-high, and 5 couples at high-high.

Table 43***TAS-20 Total Scale Discrepancy Levels and Percentages for Couples***

Levels	Wives Low	Percent %	Wives Moderate	Percent %	Wives High	Percent %
Husbands Low	94	55	17	10	4	2
Husbands Moderate	30	18	6	4	-	-
Husbands High	12	7	2	1	5	3

Note: $N = 170$ couples. A dash indicates that there were no participants in this category.

Summary

With individuals' TAS-20, low alexithymia was more prevalent in wives than in husbands, and moderate and high alexithymia were more prevalent in husbands than in wives.

Amongst couple partners, the most common combination of discrepancy level was that of low-low, followed in descending order by low-moderate, low-high, moderate-moderate, high-high, and moderate-high.

In preparation for the analyses, consideration was given to the number of categories involved and the number of couples within each of the categories; this resulted in 16 couples being excluded from the analyses. Four couples had identical scores and thus no discrepancies (three couples were in the low-low category and one couple was in the moderate-moderate category). The remaining 12 excluded couples did have discrepancies; however, they formed groups considered too small for analysis (they included five couples within the moderate-moderate level, two couples within the moderate-high level, and five couples within the high-high level).

To reduce the unwieldy nature of the analyses, and to account for the three most prevalent levels of discrepancy between couple partners, the alexithymia score categories were limited to those of husband low-wife low (L-L), husband low-wife moderate (L-M), husband low-wife high (L-H), and wife low-husband low (L-L), wife low-husband moderate (L-M), and wife low-husband high (L-H). These six categories enabled the low level of alexithymia to be the base point, and accounted for each gender having the higher alexithymia score. In addition, a binary Direction variable was formed to distinguish between husbands having higher scores than wives on alexithymia ($H > W$) and wives having higher scores than husbands on alexithymia ($W > H$).

Therefore, the final sample was 154 couples comprising 91 couples in the L-L category, 47 couples in the L-M category, and 16 couples in the L-H category. Frequencies indicated that, overall, husbands had higher alexithymia than wives in 96 couples, and wives had higher alexithymia than husbands in 58 couples (see Table 44).

Table 44

TAS-20 Total Scale Levels of Discrepancy and Percentage by Direction

TAS-20 LEVELS								
Direction	Low-Low (L-L)	Percent %	Low-Moderate (L-M)	Percent %	Low-High (L-H)	Percent	Total	Percent %
H > W	54	35	30	19	12	8	96	62
W > H	37	24	17	11	4	3	58	38
Total	91	59	47	30	16	11	154	100

Note: $N = 154$ couples. $H > W$ = husbands have higher alexithymia than wives, and $W > H$ = wives have higher alexithymia than husbands.

Overview of Analytic Design

To examine couple partners' total alexithymia discrepancies, data were analysed using the SPSS Generalised Linear Mixed Model option (GLMM: SPSS Version 20). This analytic approach was utilised because the GLMM accounts for all regression assumptions, allows for non-normal targets such as categorical data, and can predict a continuous or categorical target based on one or more predictors. It also allows for nonlinear relationships between predictors and targets through the use of a link function. In addition, unlike the traditional ANOVA models, which use the sums of squares approach to estimate parameters, the GLMM adopts the maximum likelihood approach to parameter estimation. Therefore, the GLMM is more robust to unequal group sizes and can more accurately estimate group means when group sizes are small (Bryk & Raudenbush, 1987; Dimitrov & Rumrill, 2003; Hofman, et al., 2007; Rasbash, Steele, Browne, & Prosser, 2004).

In the analyses, Dyad ($N = 154$) was treated as a categorical random effect, and the variables TAS Discrepancy Levels (L-L, L-M, L-H) and TAS Direction groups ($H > W$, $W > H$) were treated as categorical fixed effects. With the Direction groups, coding consistency was maintained with $1 = H > W$ representing husbands having higher scores than wives on alexithymia, and $-1 = W > H$ representing wives having higher scores than husbands on alexithymia. The outcome variables were Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction.

To test the main effects and interactions, the GLMM linked the normally distributed outcomes to the fixed effects with an identity function. If the outcomes did not have normal distributions, then the parameter estimates of the covariance matrix were automatically computed with robust statistics. To optimise the likelihood of convergence, separate GLMM analyses were run for each gender on each outcome variable.

The analyses provided examination of main effects and interactions between the TAS-20 discrepancy levels (Levels), direction groups (Direction), and the outcome variables. Where there were no significant Levels by Direction interactions, significant main effects were interpreted without qualification. Significant Levels main effects, and Levels by Direction interactions, were subjected to least significant difference (LSD) post hoc pairwise contrasts to locate the source(s) of the difference(s). Outcome means identified the source(s) of significant Direction main effects.

An example of the SPSS syntax for the analyses is as follows:

```
GENLINMIXED
/DATA_STRUCTURE SUBJECTS=Dyad
/FIELDS TARGET=OUTCOME TRIALS=NONE OFFSET=NONE
/TARGET_OPTIONS DISTRIBUTION=NORMAL LINK=IDENTITY
/FIXED EFFECTS=TAS_DISCREPANCY_LEVELS TAS_DIRECTION_GROUPS
TAS_DISCREPANCY_LEVELS*TAS_DIRECTION_GROUPS
USE_INTERCEPT=TRUE
/RANDOM USE_INTERCEPT=TRUE SUBJECTS=Dyad
COVARIANCE_TYPE=VARIANCE_COMPONENTS
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=ASCENDING
INPUTS_CATEGORY_ORDER=ASCENDING MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST
/EMMEANS TABLES=TAS_DISCREP_LEVELS
COMPARE=TAS_DISCREPANCY_LEVELS CONTRAST=PAIRWISE
/EMMEANS TABLES=TAS_DIRECTION_GROUPS
COMPARE=TAS_DIRECTION_GROUPS CONTRAST=PAIRWISE
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
```

In reporting the results, both significant and nonsignificant findings are presented, with main effects for Levels and for Direction detailed first, followed by Level by Direction interactions. To clarify the results, figures in the form of bar graphs are also presented.

As with the APIM analyses, the Bonferroni adjusted alpha level of .0071 was applied to the results for the main effects and interactions, and the findings for these effects were evaluated based on this significance level. With regard to LSD pairwise contrast analyses, which were already adjusted for multiple tests, no further adjustment (in the form of a Bonferroni correction) was required. Therefore, the contrast findings were evaluated based on an alpha level of .05.

Results

TAS-20 Discrepancies and Husbands' Empathy Provided

For husbands' Empathy Provided, there was a significant main effect for Levels ($F[2, 148] = 6.421, p = .002$), with pairwise contrasts showing significant differences in Empathy Provided between L-L and L-M ($p = .003$), and between L-L and L-H ($p = .016$); there was no significant difference between L-M and L-H ($p = .597$). There was no significant main effect for Direction ($F[1, 148] = 6.410, p = .012$), and no significant Level by Direction interaction ($F[2, 148] = 0.691, p = .503$) (see Figure 4).

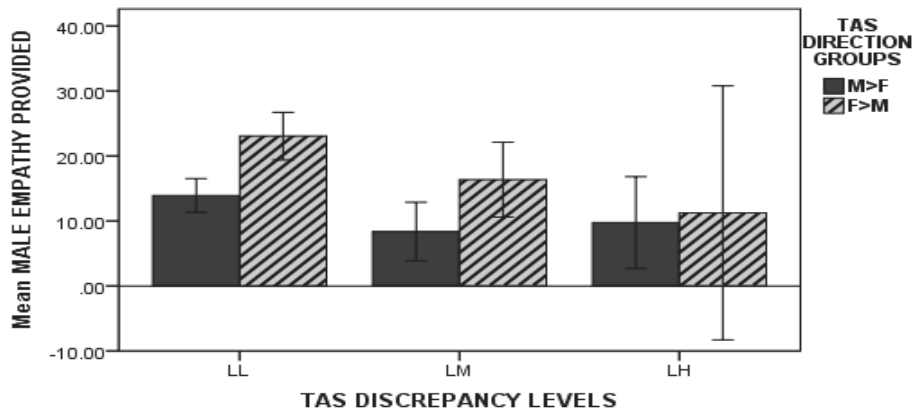


Figure 4. Husbands' empathy provided based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Wives' Empathy Provided

For wives' Empathy Provided, there was a significant main effect for Levels ($F[2, 148] = 9.453, p < .001$), with a significant difference in Empathy Provided between L-L and L-H ($p < .001$), and between L-M and L-H ($p = .040$); there was no significant difference between L-L and L-M ($p = .054$). There was no significant main effect for Direction ($F[1, 148] = 6.891, p = .010$). There was a significant Level by Direction interaction ($F[2, 148] = 7.239, p = .001$), with significant decreases in wives' Empathy Provided between the discrepancy levels of L-L and L-H ($p < .001$), L-L and L-M ($p = .019$), and between L-M and L-H ($p = .005$) when wives had higher alexithymia than husbands. When husbands had higher alexithymia than wives, wives' Empathy Provided did not differ significantly across any of the discrepancy levels; that is between L-L and L-M ($p = .965$), L-M and L-H ($p = .720$), or L-L and L-H ($p = .725$) (see Figure 5).

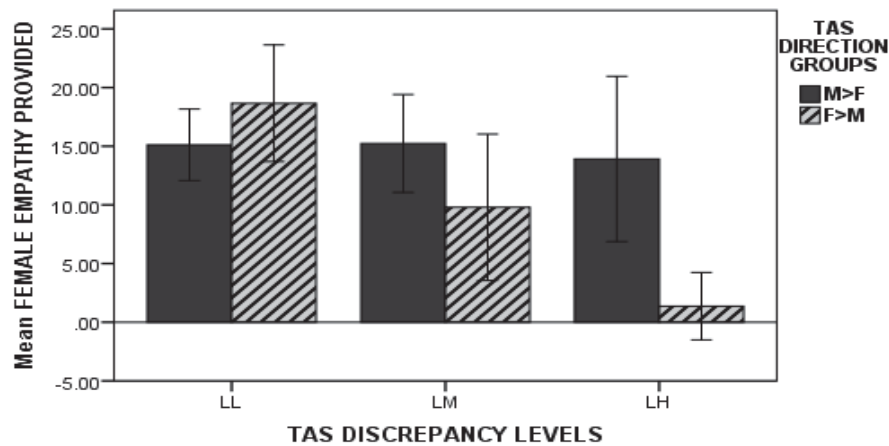


Figure 5. Wives' empathy provided based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Husbands' Empathy Received

For husbands' Empathy Received, there was a significant main effect for Levels ($F[2, 148] = 5.693, p = .004$), with a significant difference in Empathy Received between L-L and L-M ($p = .005$), and between L-L and L-H ($p = .032$); there was no significant difference between L-M and L-H ($p = .295$). The Direction main effect was not significant ($F[1, 148] = 1.474, p = .227$). There was no significant Level by Direction interaction ($F[2, 148] = 0.576, p = .564$) (see Figure 6).

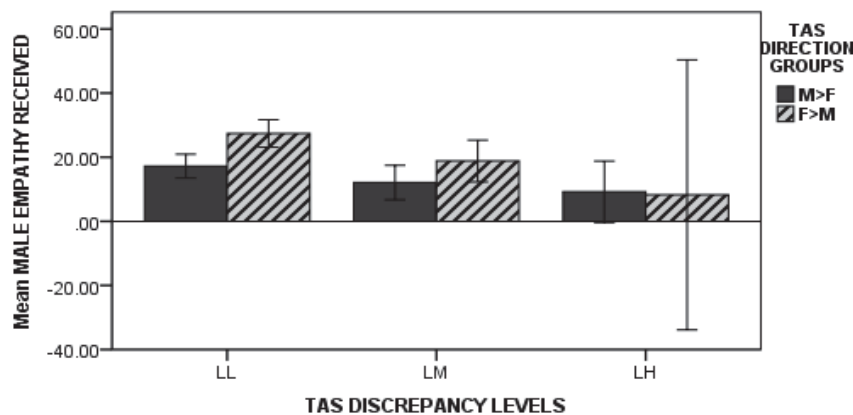


Figure 6. Husbands' empathy received based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Wives' Empathy Received

For wives' Empathy Received, there was a significant main effect for Levels ($F[2, 148] = 6.982, p = .001$), with a significant difference in wives' Empathy Received between L-L and L-H ($p = .001$), and between L-L and L-M ($p = .018$); there was no significant difference between L-M and L-H ($p = .100$). There was no significant main effect for Direction ($F[1, 148] = 5.009, p = .027$), and no significant Level by Direction interaction ($F[2, 148] = 3.453, p = .034$) (see Figure 7).

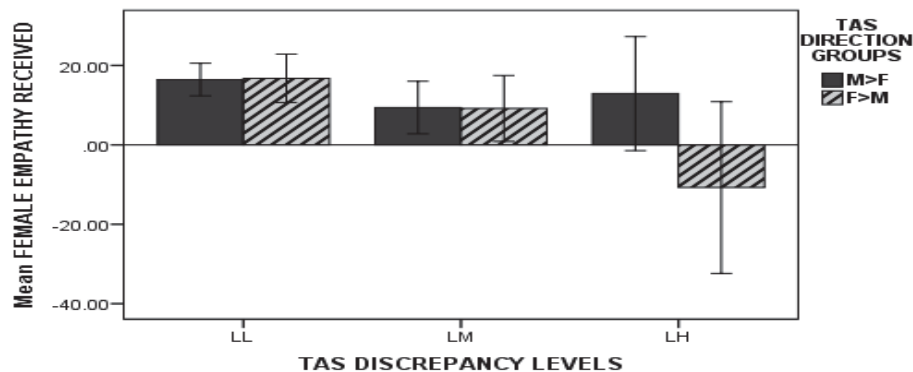


Figure 7. Wives' empathy received based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Husbands' Turn Toward

For husbands' Turn Toward, there were no significant main effects for Levels ($F[2, 148] = 1.941, p = .147$), or for Direction ($F[1, 148] = 0.622, p = .432$). There was no significant Level by Direction interaction ($F[2, 148] = 0.228, p = .796$) (see Figure 8).

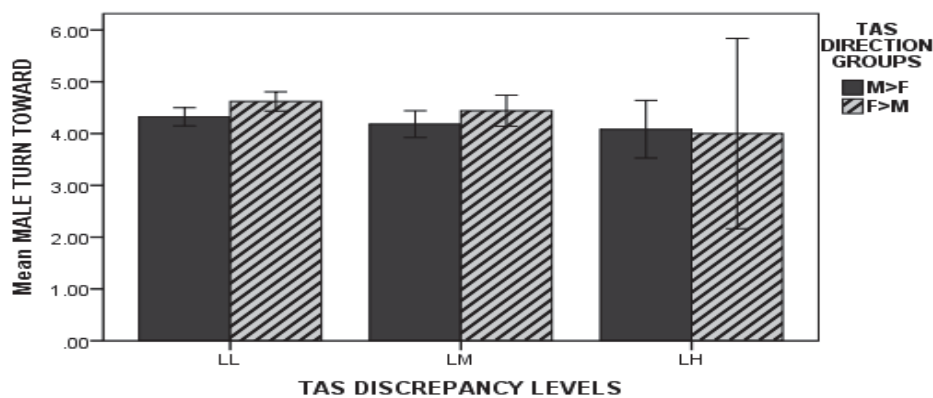


Figure 8. Husbands' turn toward based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Wives' Turn Toward

For wives' Turn Toward, there were no significant main effects for Levels ($F[2, 148] = 0.915, p = .403$), or for Direction ($F[1, 148] = 2.322, p = .130$). There was no significant Level by Direction interaction ($F[2, 148] = 1.624, p = .201$) (see Figure 9).

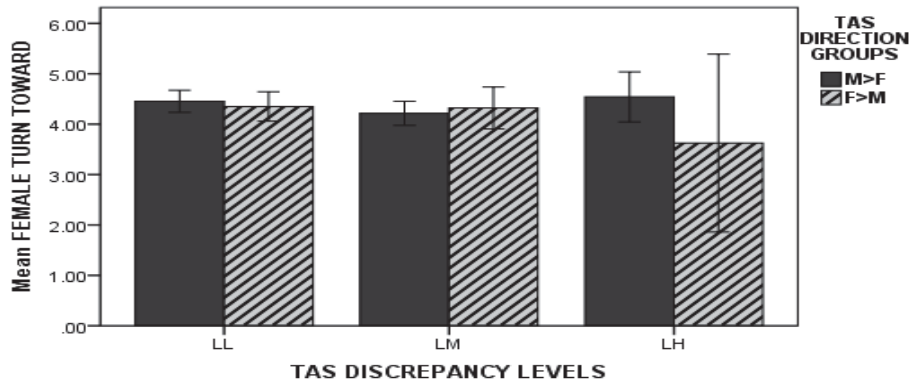


Figure 9. Wives' turn toward based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Husbands' Turn Away

For husbands' Turn Away, there were no significant main effects for Levels ($F[2, 148] = 1.971, p = .143$), or for Direction ($F[1, 148] = 0.292, p = .589$). There was no significant Level by Direction interaction ($F[2, 148] = 0.714, p = .491$) (see Figure 10).

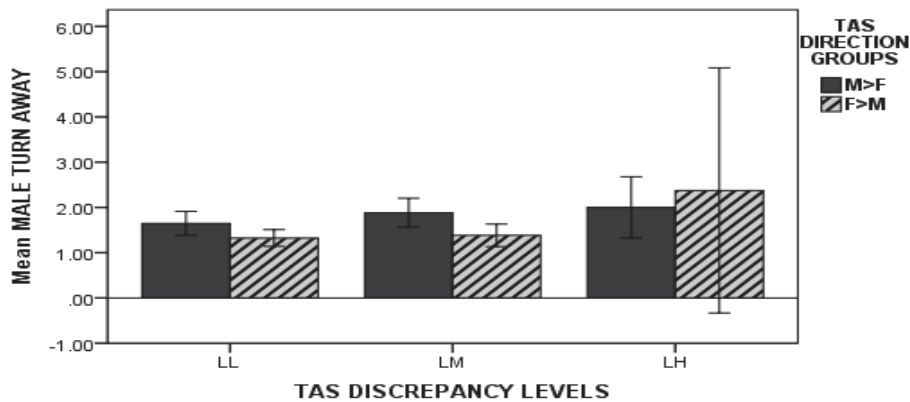


Figure 10. Husbands' turn away based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Wives' Turn Away

For wives' Turn Away, there was a significant main effect for Levels ($F[2, 148] = 9.868, p = <.001$), with significant differences in wives' Turn Away between L-L and L-H

($p = <.001$) and between L-M and L-H ($p = .007$); there was no significant difference between L-L and L-M ($p = .138$). There was no significant main effect for Direction ($F[1, 148] = 4.588, p = .034$). There was a significant Level by Direction interaction ($F[2, 148] = 8.801, p = <.000$), with significant increases in wives' Turn Away between L-L and L-H ($p = <.001$), and between L-M and L-H ($p = <.001$), but not between L-L and L-M ($p = .195$), when wives had higher alexithymia than husbands. When husbands had higher alexithymia than wives, wives' Turn Away did not differ significantly across any of the discrepancy levels; that is, between L-L and L-M ($p = .461$), L-M and L-H ($p = .729$), or L-L and L-H ($p = .900$) (see Figure 11).

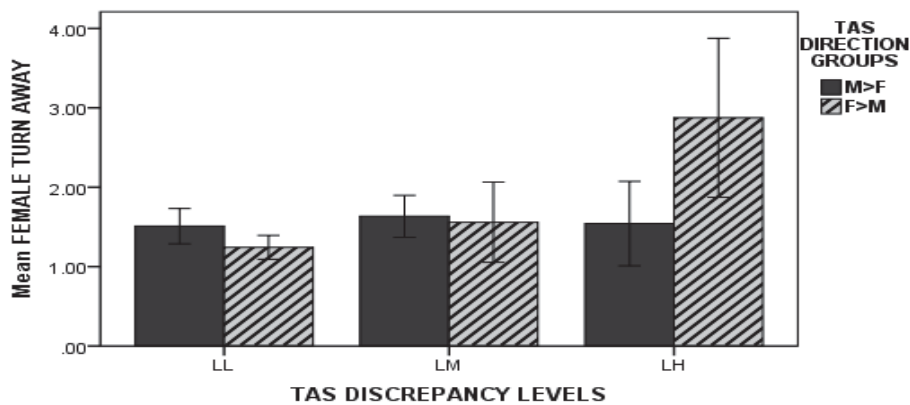


Figure 11. Wives' turn away based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Husbands' Turn Against

For husbands' Turn Against, there were no significant main effects for Levels ($F[2, 148] = 0.777, p = .462$), or for Direction ($F[1, 148] = 2.748, p = .099$). There was no significant Level by Direction interaction ($F[2, 148] = 1.217, p = .299$) (see Figure 12).

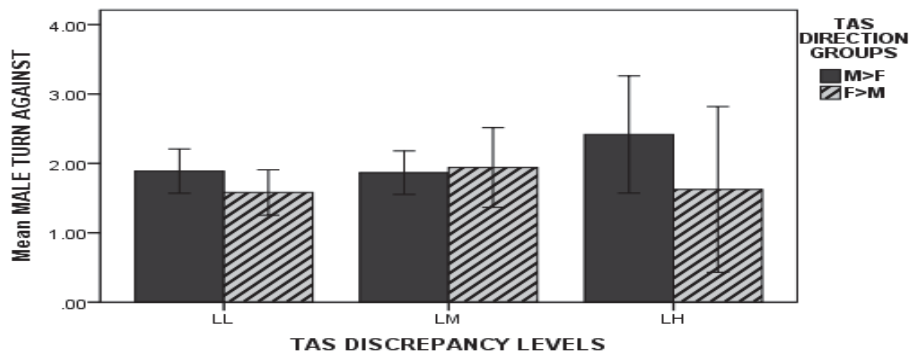


Figure 12. Husbands' turn against based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Wives' Turn Against

For wives' Turn Against, there was a significant main effect for Levels ($F[2, 148] = 6.330, p = .002$), with a significant difference in Turn Against between L-L and L-H ($p = .002$), and between L-L and L-M ($p = .026$); there were no significant differences between L-M and L-H ($p = .613$). There was a significant main effect for Direction ($F[1, 148] = 11.563, p = .001$), with wives' Turn Against being significantly higher ($M = 2.116$) when wives had higher alexithymia than did husbands ($M = 1.565$). There was a significant Level by Direction interaction ($F[2, 148] = 7.063, p = .001$), with significant increases in wives' Turn Against between L-L and L-H ($p = <.001$), and L-M and L-H ($p = .045$), but not between L-L and L-M ($p = .150$) when wives had higher alexithymia than husbands. When husbands had higher alexithymia than did wives, wives' Turn Against did not differ significantly across any of the discrepancy levels; that is, between L-L and L-M ($p = .063$), L-M and L-H ($p = .077$), or LL and LH ($p = .724$) (see Figure 13).

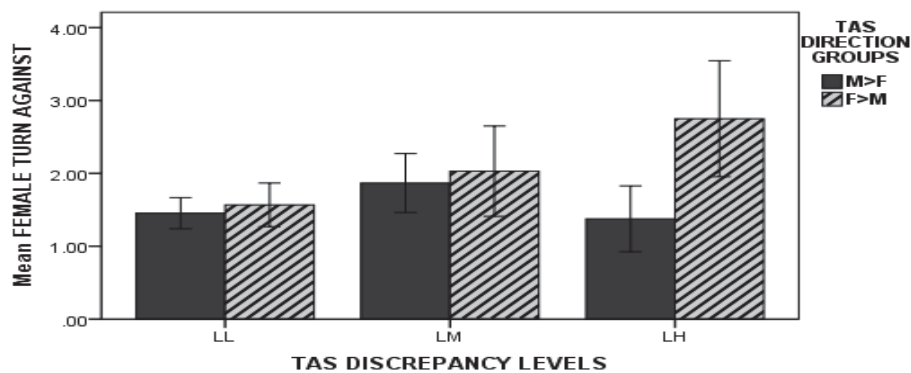


Figure 13. Wives' turn against based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Husbands' Positive Emotional Connection

For husbands' Positive Emotional Connection, there were no significant main effects for Levels ($F[2, 148] = 2.653, p = .074$), or for Direction ($F[1, 148] = 0.013, p = .908$). There was no significant Level by Direction interaction ($F[2, 148] = 1.229, p = .296$) (see Figure 14).

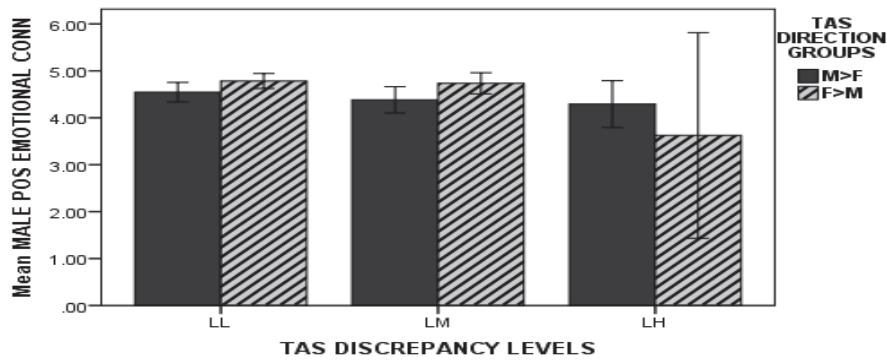


Figure 14. Husbands' positive emotional connection based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Wives' Positive Emotional Connection

For wives' Positive Emotional Connection, there was a significant main effect for Levels ($F[2, 148] = 10.392, p = <.001$), with significant differences in Positive Emotional Connection between L-L and L-M ($p = .007$) and between L-L and L-H ($p = <.001$); there was no significant difference between L-M and L-H ($p = .184$). There was a significant main effect for Direction ($F[1, 148] = 10.182, p = .002$), with wives' Positive Emotional Connection being significantly lower ($M = 4.054$) when wives had higher alexithymia than did husbands ($M = 4.551$). There was a significant Level by Direction interaction ($F[2, 148] = 7.178, p = .001$), with significant decreases in wives' Positive Emotional Connection between L-L and L-H ($p = <.001$), and L-M and L-H ($p = .009$), but not between L-L and L-M ($p = .095$) when wives had higher alexithymia than husbands. When husbands had higher alexithymia than wives, there was a significant decrease in wives' Positive Emotional Connection between L-L and L-M ($p = .015$), but not between L-M and L-H ($p = .139$), or L-L and L-H ($p = .867$) (see Figure 15).

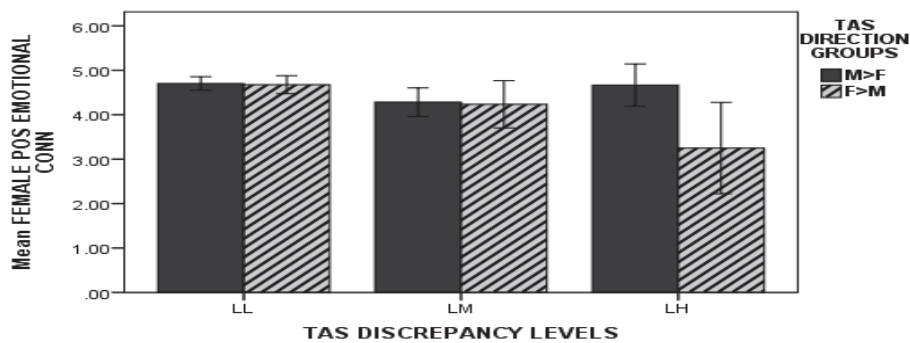


Figure 15. Wives' positive emotional connection based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Husbands' Relationship Dissatisfaction

For husbands' Relationship Dissatisfaction, there were no significant main effects for Levels ($F[2, 148] = 2.369, p = .097$), or for Direction ($F[1, 148] = 0.107, p = .745$). There was no significant Levels by Direction interaction ($F[2, 148] = 0.088, p = .916$) (see Figure 16).

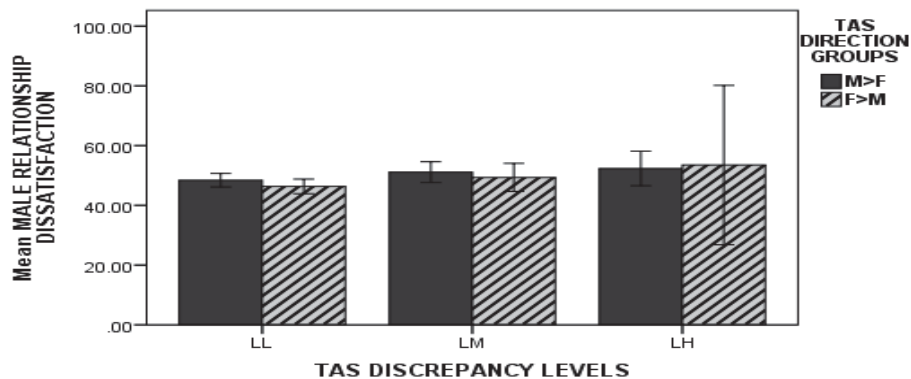


Figure 16. Husbands' relationship dissatisfaction based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

TAS-20 Discrepancies and Wives' Relationship Dissatisfaction

For wives' relationship dissatisfaction, there was no significant main effect for Levels ($F[2, 148] = 3.900, p = .022$). There was no significant main effect for Direction ($F[1, 148] = 4.176, p = .043$). There was no significant Levels by Direction interaction ($F[2, 148] = 1.867, p = .158$) (see Figure 17).

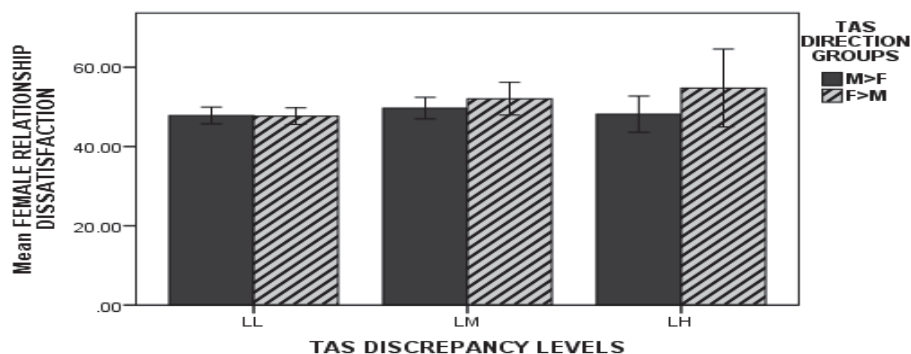


Figure 17. Wives' relationship dissatisfaction based on couples' total alexithymia discrepancy levels and direction groups of each gender being higher than the other on alexithymia. Error bars represent 95% confidence intervals.

Summary

Research Question 1: Do couple partners' TAS-20 discrepancies predict their Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction?

Husbands' Empathy Provided and Empathy Received decreased significantly when partners' TAS-20 discrepancies increased from low-low to low-moderate, and from low-low to low-high.

Husbands' Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction were not affected by spouses' alexithymia discrepancies.

Wives' Empathy Received decreased as partners' alexithymia discrepancies widened from low-low to low-moderate, and from low-low to low-high.

Wives' Turn Toward and Relationship Dissatisfaction were not affected by spouses' alexithymia discrepancy levels.

See Research Question 3 below for wives interactions on Empathy Provided, Turn Away, Turn Against, and Positive Emotional Connection; these supersede the discrepancy effects.

Research Question 2: Are husbands', and wives', outcome variables influenced by the gender directions of husbands having higher TAS-20 scores than wives, or wives having higher TAS-20 scores than husbands?

Husbands', and wives', outcome variables were not influenced by either partner having higher alexithymia than the other partner.

See Research Question 3 below for wives' interactions on Empathy Provided, Turn Away, Turn Against, and Positive Emotional connection; these supersede the gender direction effects.

Research Question 3: Are there interactions between husbands', and wives, TAS-20 discrepancy levels and gender directions?

Husbands showed no significant interactions between the alexithymia discrepancies and the gender direction for any of the outcome variables.

Wives' Empathy Provided decreased as partners' alexithymia discrepancies widened from low-low to low-moderate, low-moderate to low-high, and low-low to low-high *and* when wives had the higher alexithymia.

Wives' Turn Away and Turn Against increased as partners' alexithymia discrepancies widened from low-low to low-high, and from low-moderate to low-high *and* when wives had the higher alexithymia.

Wives' Positive Emotional Connection decreased as partners' alexithymia discrepancies increased from low-low to low-high, and low-moderate to low-high *and* when wives had the higher alexithymia. Furthermore, wives Positive Emotional Connection also decreased as the discrepancies widened from low-low to low-moderate *and* when husbands had the higher alexithymia.

Wives showed no significant interactions for Empathy Received, Turn Toward, or Relationship Dissatisfaction.

Having examined the effects of the TAS-20 levels of discrepancy on couple partners' outcome variables, the next section presents the discrepancy effects for the TAS-20 factors of Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and Externally Oriented Thinking (EOT).

Assessment of Couples' DIF, DDF, and EOT Discrepancies

As noted above, it seems that Yelsma and Marrow (2003) is the only published study to examine couples' differences in the alexithymia factors of DIF, DDF, and EOT. In that study, the authors reported utilising 'two piece-wise regression models' to separately test the effect on partners' relationship dissatisfaction when husbands are higher than wives, and when wives are higher than husbands, on the DIF, DDF, and EOT factors.

Yelsma and Marrow (2003) found that when husbands were higher than wives on DIF, there were no significant effects on their own, or wives', relationship dissatisfaction. When wives had higher DIF than husbands, both wives' and husbands' relationship dissatisfaction increase.

When husbands were higher than wives on DDF, husbands' own relationship dissatisfaction increased; however, there were no influences on wives' relationship dissatisfaction. Although it was reported that wives had a significant increase in relationship dissatisfaction when husbands had the higher DDF, the reported *p* value was .06. When wives had higher DDF than husbands, there were no significant effects on their own, or husbands', relationship dissatisfaction (Yelsma & Marrow, 2003).

When husbands were higher than wives on EOT, husbands' relationship dissatisfaction increased; wives' relationship dissatisfaction was not influenced by husbands having higher EOT. When wives had higher EOT than husbands, there were no significant effects on their own, or husbands', relationship dissatisfaction (Yelsma & Marrow, 2003).

Although Yelsma and Marrow (2003) did not test the discrepancies *per se*, they did take into account the directions of the differences (that is, when each gender had higher factor scores than the other). Therefore, to extend Yelsma and Marrow's research, the current study investigated the influences of couple partners' DIF, DDF, and EOT discrepancies on partners' own, and their spouses', Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction.

Furthermore, the discrepancy directions were tested in terms of examining the effects of each gender being higher than the other on each factor variable. Based on the previous limited theoretical and empirical findings, the following research questions and hypotheses were investigated:

Research Questions:

- RQ1. Do DIF, DDF, and/or EOT discrepancies between couple partners predict husbands' and wives' own, and their spouses', Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection?
- RQ2. Does the gender direction of the DIF, DDF, and/or EOT discrepancies influence husbands' and wives' Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection?

Hypotheses based on findings by Yelsma and Marrow (2003):

- H1 When husbands are higher than wives on DDF, husbands' Relationship Dissatisfaction will increase.
- H2 When husbands are higher than wives on EOT, husbands' Relationship Dissatisfaction will increase.
- H3. When wives are higher than husbands on DIF, both wives', and husbands', Relationship Dissatisfaction will increase.

Because it is not possible to examine DIF, DDF, or EOT *levels* of discrepancy, it was necessary to consider the processes involved when analysing dissimilarity in related dyads, and to formulate an analytic method alternative to the categorical approach taken with the TAS-20 total alexithymia scale. In doing so, the formulation was guided by Kenny et al. (2006), and Louis (2009), and based on analysing the data using SPSS GLMM moderated linear regression models. The manner in which the data file was prepared is detailed below.

Preparation of the Data File

According to Kenny et al. (2006), when dyadic investigation concerns similarity or dissimilarity between couple partners, it is useful to create a “dyadic index” (p. 318) whereby scores on a variable are obtained from each partner and some measure of association (such as a discrepancy score) is determined between the two scores. The advantages of using a dissimilarity dyadic index are that “much smaller sample sizes can be used” (p. 322), and “only one item is needed” from each partner to create an index; however, a minimum of four to seven items is desirable.

Similarly to the APIM, and the TAS-20 total discrepancy analyses, when computing a dyadic index to examine predictor variables’ dissimilarities (discrepancies) and interactions, it is important to consider whether the predictor variables have a meaningful zero. If these variables do not have a meaningful zero, new variables need to be created that are the existing predictor variables’ ‘absolute difference’ scores within each couple (Kenny et al., 2006). However, when formulating a model to test discrepancy interactions with mixed predictor variables that do not have a meaningful zero (as is the case here), it is recommended that additional new variables are formed utilising the grand-mean centered (GMC) scores of the absolute difference scores. This reduces multicollinearity and enables estimation of interactive effects whilst controlling the main effects in the data. (Kenny et al., p. 166).

Assessing DIF, DDF, and EOT Discrepancy Scores and Interactions

As with the total TAS-20 scale, the DIF, DDF, and EOT factors within that scale do not include a meaningful zero. Therefore, the process for each of the factor variables involved firstly creating the absolute difference score for each of the couples by subtracting the wife’s score from the husband’s score. Of note is that it does not matter which gender’s score is subtracted from the other; the important element is that the subtractions must be consistently computed in the same direction.

After computing the absolute difference scores, a GMC discrepancy variable was formed by computing the mean of the total sample’s absolute difference scores for the particular factor, and then subtracting that mean from each couples’ absolute difference score. This provided the final discrepancy score to be used in the analysis; this variable was labeled Discrepancy.

Next, a direction grouping variable was formed and coded to designate whether within couples' discrepancy scores, husbands' scores were higher than wives' scores ($H > W$) or wives' scores were higher than husbands' scores ($W > H$). To maintain contrast coding consistency, values of 1 were assigned for the $H > W$ group, and -1 for the $W > H$ group; this variable was labeled Direction.

To enable testing of interaction effects, an interaction term variable was created by multiplying each couple's GMC score by the Direction grouping variable representing whether the husband's score was higher than the wife's score (coded as 1), or the wife's score was higher than the husband's score (coded as -1).

Summary

Preparation of the factor discrepancy data file involved the following processes of creating:

- An 'absolute difference' score between each of the couple partners;
- Grand-mean centered (GMC) scores from the absolute difference scores;
- A binary coded direction grouping variable to account for each partner having the higher predictor score;
- An interaction term by multiplying the GMC scores by the coded direction grouping variable.

As recommended by Louis (2009), descriptive statistics were computed on the absolute difference scores and the Direction grouping variable based on each gender having the higher scores on each of the predictor variable totals. As shown in Table 45, of the total sample of 170 couples, each of the factors showed a greater number of husbands having higher scores than their wives than wives having higher scores than their husbands. Furthermore, there were a number of couples who had an identical score on each of the factors, and given that this equalled a zero discrepancy, these couples were excluded from the analyses. This resulted in final sample numbers of 153 couples for DIF, 154 couples for DDF, and 164 couples for EOT.

Table 45***DIF, DDF, and EOT Absolute Discrepancy Score Means, Standard Deviations, and Direction Groups***

Absolute Discrepancy Scales			H > W		W > H		EQUAL	
	<i>M</i>	<i>SD</i>	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
DIF	6.28	4.74	80	47.1	73	42.9	17	10.0
DDF	5.34	3.82	106	62.4	48	28.2	16	9.4
EOT	5.65	3.91	102	60.0	62	36.5	6	3.5

Note. *N* = 170 couples. *M* = mean of the absolute discrepancies. *SD* = standard deviation. Group variables: H > W = husbands' scores greater than wives' scores; W > H = wives' scores greater than husbands' scores; Equal = husbands' and wives' scores identical. DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally oriented thinking.

Overview of the Analytic Design

GLMM moderated linear regressions were utilised to examine couple partners' discrepancies on the DIF, DDF, and EOT predictors, and their effects and interactions on partners' outcome variables. In following suggested guidelines on analysing dissimilarities in related dyadic data (Kenny et al., 2006), and computing moderated multiple regressions (Louis, 2009), the regression model was formed with the GMC discrepancies in step one, the GMC direction grouping variable (H > W = 1, W > H = -1) in step two, and the GMC interaction term added in step three. An example of the SPSS syntax for the regression is as follows:

```

/REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE
ZPP
/CRITERIA=PIN(.05) POUT(.10) CIN(95)
/NOORIGIN
/DEPENDENT VARIABLE
/METHOD=ENTER PREDICTOR GMC DISCREPANCY PREDICTOR
DISCREPANCY GROUP
/METHOD=ENTER INTERACTION TERM
/SCATTERPLOT=(*SRESID,*ZPRED)
/SAVE RESID COOK.

```

The results for the discrepancy effects and interactions are presented below. To assist with interpretation of the findings, a brief description is provided of their meanings as they pertain to the analyses.

Where there is a significant main effect for Discrepancy and/or Direction and no significant interaction, the main effects can be interpreted without qualification. Where there is a significant interaction (therefore compromising any main effects), the superseding interaction becomes the focus of the results.

Discrepancy

A significant main effect for Discrepancy indicates that the DIF, DDF, and EOT discrepancies between husbands and wives are significant predictors of the outcome variable. This is independent of which gender has the higher discrepancy score.

Direction

A significant main effect for Direction indicates that the variable forming the two groups of $H > W$ and $W > H$ is significantly associated with the outcome, and that within that variable, there is a significant difference between the two gender groups. The direction of the regression coefficient (positive or negative) specifies the effect each group is having on the outcome; a positive coefficient indicates that the group coded 1 ($H > W$) has a significantly higher outcome score than the group coded -1 ($W > H$), and a negative coefficient indicates that the group coded -1 ($W > H$) has the higher outcome score. This is independent of partners' discrepancies.

Discrepancy by Direction Interaction

A significant interaction indicates that the relationship between Discrepancy and the outcome variable varies across the Direction groups of $H > W$ and $W > H$. This then requires further investigation using post hoc testing to examine the Direction groups separately to determine how each of the two groups is influencing that relationship.

When examining significant regression interactions that include binary group variables, traditional methods may involve determining the origin of the significance by either splitting the file into the two groups (or creating two separate files for the groups) and conducting separate regression analyses for each group. Alternatively, an Excel worksheet may be used to conduct meta-analysis tests to examine the effects separately (e.g., Sibley, 2008). However, applying these methods was cumbersome, and so I explored whether the

(more direct) two-intercept model that can be used to analyse APIM interactions (Kenny et al., 2006) could be modified for the same purpose with the factor discrepancy interactions.

To evaluate whether a modified two-intercept model was a viable option in assessing the significant interactions, the APIM based two-intercept syntax was adapted to accommodate the applicable variables. Testing of the modified model did suggest that the technique could be successfully applied; however, it was considered necessary to verify the accuracy of the results by comparing these with the more traditional methods.

To compare the methods, separate regression analyses were computed using both the split file and the Excel meta-analysis methods. Compared to the modified two-intercept model, the findings from these two methods produced identical regression coefficients and *p* values, and (as would be expected) slightly different standard errors, which indicated that the techniques were accurately comparable. In addition, to check for false positive and false negative results, the modified two-intercept model was tested with study variables that had shown either significant or nonsignificant interactions. These analyses again indicated that the technique was producing accurate results; that is, a significant interaction showed significance within the direction groups, and a nonsignificant interaction showed no significance within those groups. Therefore, the modified two-intercept model was considered an appropriate analysis to conduct when testing post hoc contrasts for significant interactions. An example of the adapted two-intercept syntax is provided below.

MIXED

```
DV WITH DIF_MALE_HIGHER DIF_FEMALE_HIGHER DIF_GMC  
/FIXED = DIF_MALE_HIGHER DIF_FEMALE_HIGHER DIF_GMC*DIF_MALE_HIGHER  
DIF_GMC*DIF_FEMALE_HIGHER | NOINT  
/PRINT = SOLUTION TESTCOV
```

As a final preparation, and consistent with the APIM and TAS-20 discrepancy analyses, a Bonferroni adjustment was applied. The per-test alpha level (.05) was divided by the seven outcomes, again resulting in an adjusted alpha level of .0071 against which the results were evaluated.

In presenting the results, findings for husbands and wives are reported separately. These are summarised in a way that focuses on significant main effects and interactions, and clarifies the findings in terms of the three steps that formed the regressions. Summary statistics provided in text are the *p* values and *sr* coefficients (part correlation coefficients, which indicate the relationship between the predictor and outcome, controlling for the

effect that the other variables have on the outcome). The sr^2 values are shown, and are multiplied by 100 to reveal the percentage of variance explained. Tables are provided of key statistical results for each factor and each gender.

Results

Difficulty Identifying Feelings (DIF) Discrepancies

DIF Discrepancies and Husbands' Outcome Variables

For husbands, there were no significant main effects for DIF Discrepancy as a predictor of any of the husbands' outcome variables ($ps > .0071$). In contrast, there were significant Direction main effects accounting for 13.32% of the variance in Empathy Provided ($sr = -.365$, $sr^2 = 0.1332$, $p < .001$), and 6.66% in Empathy Received ($sr = -.258$, $sr^2 = 0.0666$, $p = .001$). All other main effects were nonsignificant, and there were no significant Discrepancy by Direction interactions ($ps > .0071$). See Table 46 for additional statistics for husbands.

These findings indicate that, on their own, DIF discrepancies between husbands and wives were not predictive of husbands' Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction.

However, the results do suggest that the crucial factor is the *direction* of these differences: Husbands who had greater Difficulty Identifying Feelings than their wives reported lower levels of Empathy Provided and Empathy Received compared to husbands who had less Difficulty Identifying Feelings than their wives.

DIF Discrepancies and Wives' Outcome Variables

For wives, there were no significant main effects for DIF Discrepancy or for Direction as predictors of any of the wives' outcome variables, and there were no significant Discrepancy by Direction interactions ($ps > .0071$). See Table 47 for additional statistics for wives. These findings indicate that on their own, DIF discrepancies between husbands and wives, and the direction of the discrepancies, were not predictive of wives' Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction. There were no significant Discrepancy by Direction interactions.

Table 46.

Husbands' Regression Statistics Predicting Outcomes from DIF Discrepancy (Step 1), Direction (Step 2), and

Husband	DIF Discrepancy			DIF Direction			DIF Interact	
Outcomes	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95%
EP	-0.27	[-0.63, 0.09]	.145	-4.16	[-5.86, -2.46]	<.001	-0.12	[-0.48, 0
ER	-0.28	[-0.77, 0.21]	.263	-3.88	[-6.20, -1.54]	.001	-0.37	[-0.87, -0
T Toward	-0.00	[-0.03, 0.02]	.695	-0.09	[-0.19, 0.01]	.094	-0.01	[-0.03, -0
T Away	0.01	[-0.02, 0.04]	.457	0.12	[-0.02, 0.26]	.092	0.01	[-0.02, 0
T Against	-0.01	[-0.04, 0.03]	.757	0.04	[-0.14, 0.21]	.681	0.03	[-0.00, 0
PEC	-0.00	[-0.03, 0.02]	.827	-0.08	[-0.19, 0.02]	.130	-0.00	[-0.03, 0
Rel Dissat	0.10	[-0.19, 0.40]	.496	0.90	[-0.50, 2.30]	.205	-0.00	[-0.30, 0

Note. *N* = 153 couples. 95% CI = confidence intervals. DIF = difficulty identifying feelings, EP = empathy provided, ER = empathy received, TAway = turn away, TAgainst = turn against, PEC = positive emotional connection, Rel Dissat = relationship dissatisfaction.

* Bonferroni adjusted alpha-level = .0071.

Table 47

Wives' Regression Statistics Predicting Outcomes from DIF Discrepancy (Step 1), Direction (Step 2), and Interaction (Step 3)

Wife Outcomes	DIF Discrepancy			DIF Direction			DIF Interaction		
	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>
EP	-0.12	[-0.53, 0.30]	.577	0.89	[-1.08, 2.85]	.373	0.18	[-0.24, 0.59]	.33
ER	-0.27	[-0.86, 0.31]	.361	1.01	[-1.77, 3.79]	.475	0.11	[-0.48, 0.70]	.70
T Toward	0.01	[-0.02, 0.03]	.670	0.02	[-0.11, 0.15]	.744	0.02	[-0.01, -0.04]	.20
T Away	0.00	[-0.02, 0.03]	.950	-0.02	[-0.14, 0.10]	.779	-0.02	[-0.05, 0.00]	.10
T Against	0.02	[-0.02, 0.05]	.325	-0.05	[-0.21, 0.11]	.560	-0.00	[-0.04, 0.03]	.90
PEC	-0.00	[-0.03, 0.02]	.733	0.04	[-0.09, 0.17]	.549	0.02	[-0.01, 0.04]	.20
Rel Dissat	0.04	[-0.21, 0.29]	.756	-0.37	[-1.54, 0.80]	.530	-0.20	[-0.44, 0.05]	.10

Note. *N* = 153 couples. 95% CI = confidence intervals. DIF = difficulty identifying feelings, EP = empathy provided, ER = empathy received, T Toward = turn toward, T Away = turn away, T Against = turn against, PEC = positive emotional connection, Rel Dissat = relationship dissatisfaction.
* Bonferroni adjusted alpha-level = .0071.

Difficulty Describing Feelings (DDF) Discrepancies

DDF Discrepancies and Husbands' Outcome Variables

For husbands, there were no significant main effects for DDF Discrepancy as a predictor of any of the husbands' outcome variables ($ps > .0071$). In contrast, there were significant Direction main effects accounting for 6.05% of the variance in husbands' Empathy Provided ($sr = -.246$, $sr^2 = 0.0605$, $p = .002$), 5.95% in Empathy Received ($sr = -.244$, $sr^2 = 0.0595$, $p = .002$), 5.52% in Turn Toward ($sr = -.235$, $sr^2 = 0.0552$, $p = .003$), and 7.13% in Turn Away ($sr = .267$, $sr^2 = 0.0713$, $p = .001$). All other main effects were nonsignificant, and there were no significant Discrepancy by Direction interactions ($ps > .0071$). See Table 48 for additional statistics for husbands.

These findings indicate that, on their own, DDF discrepancies between husbands and wives were not predictive of husbands' Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction.

However, the results suggest that the direction of the differences is a significant predictor, with husbands who had greater Difficulty Describing Feelings than their wives reporting lower Empathy Provided, Empathy Received, and Turn Toward, and higher Turn Away compared to husbands who had less Difficulty Describing Feelings than their wives. There were no significant interactions.

DDF Discrepancies and Wives' Outcome Variables

For wives, there were no significant main effects for DDF Discrepancy or for Direction as predictors of any of the wives' outcome variables, and there were no significant Discrepancy by Direction interactions ($ps > .0071$). See Table 49 for additional statistics for wives.

These findings indicate that on their own, DDF discrepancies between husbands and wives, and the direction of the discrepancies, were not predictive of wives' Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction. There were no significant Discrepancy by Direction interactions.

Table 48

Husbands' Regression Statistics Predicting Outcomes from DDF Discrepancy (Step 1), Direction (Step 2), and Interaction (Step 3)

Husband	DDF Discrepancy			DDF Direction			DDF Interaction		
Outcomes	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>
EP	-0.26	[-0.73, 0.22]	.288	-3.11	[-5.06, -1.15]	.002	-0.29	[-0.88, 0.28]	.3
ER	-0.10	[-0.72, 0.53]	.755	-4.02	[-6.59, -1.45]	.002	-0.33	[-1.10, 0.43]	.3
T Toward	-0.01	[-0.04, 0.01]	.307	-0.18	[-0.29, -0.06]	.003	-0.02	[-0.06, 0.01]	.1
T Away	0.00	[-0.03, 0.04]	.795	0.26	[0.11, 0.41]	.001	0.01	[-0.04, 0.05]	.8
T Against	0.02	[-0.02, 0.07]	.371	0.16	[-0.03, 0.35]	.092	0.01	[-0.04, 0.07]	.6
PEC	-0.01	[-0.04, 0.02]	.416	-0.11	[-0.23, 0.01]	.083	-0.02	[-0.05, 0.02]	.3
Rel Dissat	0.36	[-0.02, 0.73]	.061	1.08	[-0.46, 2.61]	.169	-0.03	[-0.48, 0.43]	.9

Note. *N* = 154 couples. 95% CI = confidence intervals. DDF = difficulty describing feelings, EP = empathy provided, ER = empathy received, TToward = turn toward, TAway = turn away, TAgainst = turn against, PEC = positive emotional connection, Rel Dissat = relationship dissatisfaction.
 * Bonferroni adjusted alpha-level .0071.

Table 49

Wives' Regression Statistics Predicting Outcomes from DDF Discrepancy (Step 1), Direction (Step 2), and Interaction (Step 3)

Wife Outcomes	DDF Discrepancy			DDF Direction			DDF Interaction		
	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>
EP	-0.25	[-0.76, 0.26]	.341	-0.01	[-2.12, 2.10]	.990	0.24	[-0.39, 0.87]	.42
ER	-0.44	[-1.18, 0.30]	.240	-0.07	[-3.11, 2.96]	.962	0.37	[-0.53, 1.27]	.42
T Toward	0.00	[-0.03, 0.04]	.934	-0.08	[-0.22, 0.06]	.281	-0.00	[-0.04, 0.04]	.89
T Away	0.01	[-0.04, 0.02]	.630	0.15	[0.01, 0.28]	.036	-0.01	[-0.05, 0.03]	.42
T Against	0.00	[-0.04, 0.04]	.988	0.07	[-0.10, 0.24]	.434	-0.00	[-0.05, 0.05]	.99
PEC	0.02	[-0.02, 0.05]	.354	-0.07	[-0.21, 0.08]	.345	0.02	[-0.02, 0.07]	.29
Rel Dissat	0.36	[0.04, 0.68]	.026	-0.36	[-1.66, 0.94]	.589	-0.49	[-0.87, -0.11]	.00

Note. *N* = 154 couples. 95% CI = confidence intervals. DDF = difficulty describing feelings, EP = empathy provided, ER = empathy received, TToward = turn toward, TAway = turn away, TAgainst = turn against, PEC = positive emotional connection, Rel Dissat = relationship dissatisfaction.
* Bonferroni adjusted alpha-level of .0071.

Externally Oriented Thinking (EOT) Discrepancies

EOT Discrepancies and Husbands' Outcome Variables

For husbands, there was a significant main effect for EOT Discrepancy accounting for 6.05% of the variance in Turn Away ($sr = .246$, $sr^2 = 0.0605$, $p = .002$). All other effects for EOT Discrepancy were not significant ($ps > .0071$). There were no significant main effects for Direction on any of the husbands' outcome variables ($ps > .0071$). There was a significant Discrepancy by Direction interaction, which accounted for 6.25% in Turn Against ($sr = .250$, $sr^2 = 0.0625$, $p = .001$). The modified two-intercept model analysis indicated that Discrepancy was a significant predictor of Turn Against ($B = 0.080$, $p = .002$), when husbands had higher EOT scores than their wives, but not when wives had the higher EOT scores ($B = -0.077$, $p = .059$). See Table 50 for additional statistics for husbands.

These findings indicate that on their own, EOT discrepancies between husbands and wives were predictive of husbands' Turn Away, but not of their Empathy Provided, Empathy Received, Turn Toward, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction. They also indicate that EOT Direction alone did not predict any of the husbands' outcomes. However, there was a significant Discrepancy by Direction interaction, indicating that husbands' Turn Against was significantly greater when husbands were higher than their wives in Externally Oriented Thinking, but not when wives had the higher Externally Oriented Thinking.

EOT Discrepancies and Wives' Outcome Variables

For wives, there were no significant main effects for EOT Discrepancy or Direction as predictors of any of the wives' outcome variables, and there were no significant Discrepancy by Direction interactions ($ps > .0071$). See Table 51 for additional statistics for wives.

These findings indicate that on their own, DDF discrepancies between husbands and wives, and the direction of the discrepancies, were not predictive of wives' Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction. There were no significant Discrepancy by Direction interactions.

Table 50

Husbands' Regression Statistics Predicting Outcomes from EOT Discrepancy (Step 1), Direction (Step 2), and Interaction (Step 3)

Husband	EOT Discrepancy			EOT Direction			EOT Interaction		
Outcomes	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>
EP	-0.13	[-0.58, 0.38]	.672	-1.17	[-3.09, 0.76]	.233	-0.52	[-1.06, 0.01]	.010
ER	-0.43	[-1.04, 0.18]	.164	0.18	[-2.27, 2.62]	.888	-0.79	[-1.46, -0.11]	.001
T Toward	-0.02	[-0.05, 0.00]	.088	-0.02	[-0.13, 0.08]	.669	-0.04	[-0.07, -0.01]	.001
T Away	0.06	[0.02, 0.09]	.002	-0.03	[-0.16, 0.11]	.695	0.04	[0.00, 0.08]	.001
T Against	0.04	[-0.01, 0.08]	.095	0.02	[-0.15, 0.19]	.827	0.08	[0.03, 0.13]	.001
PEC	-0.03	[-0.06, -0.00]	.044	-0.04	[-0.15, 0.07]	.488	-0.04	[-0.07, -0.01]	.001
Rel Dissat	0.43	[0.08, 0.78]	.016	-0.39	[-1.80, 1.02]	.586	0.48	[0.09, 0.87]	.001

Note. *N* = 164 couples. 95% CI = confidence intervals. EOT = externally oriented thinking, EP = empathy provided, ER = empathy received, TToward = turn toward, TAway = turn away, TAgainst = turn against, PEC = positive emotional connection, Rel Dissat = relationship dissatisfaction.
 * Bonferroni adjusted alpha-level of .0071.

Table 51

Wives' Regression Statistics Predicting Outcomes from EOT Discrepancy (Step 1), Direction (Step 2), and Interaction (Step 3)

Wife Outcomes	EOT Discrepancy			EOT Direction			EOT Interaction		
	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>	<i>B</i>	95% CI	<i>p</i>
EP	0.07	[-0.43, 0.56]	.794	1.32	[-0.68, 3.33]	.194	-0.49	[-1.04, 0.07]	.001
ER	-0.08	[-0.79, 0.63]	.828	1.66	[-1.20, 4.52]	.255	-0.87	[-1.66, -0.08]	.001
T Toward	-0.03	[-0.06, 0.00]	.099	0.14	[0.01, 0.26]	.034	-0.01	[-0.04, 0.03]	.601
T Away	0.02	[-0.01, 0.05]	.229	-0.04	[-0.17, 0.08]	.484	-0.00	[-0.04, 0.03]	.951
T Against	-0.01	[-0.05, 0.03]	.704	-0.21	[-0.37, -0.05]	.009	0.02	[-0.03, 0.06]	.401
PEC	-0.01	[-0.04, 0.02]	.462	0.07	[-0.07, 0.20]	.326	0.01	[-0.03, 0.05]	.601
Rel Dissat	0.13	[-0.17, 0.43]	.382	-0.80	[-2.00, 0.40]	.188	0.15	[-0.18, 0.49]	.301

Note. *N* = 164 couples. 95% CI = confidence intervals. EOT = externally oriented thinking, EP = empathy provided, ER = empathy received, TToward = turn toward, TAway = turn away, TAgainst = turn against, PEC = positive emotional connection, Rel Dissat = relationship dissatisfaction.
 * Bonferroni adjusted alpha-level of .0071.

Summary

Research Question 1: Do DIF, DDF, and EOT discrepancies predict husbands', and wives', outcome variables?

Couple partners' DIF and DDF discrepancies alone did not predict any of the husbands', or wives', outcome variables. Their EOT discrepancies predicted an increase in husbands' Turn Away.

None of the wives' outcome variables were predicted by DIF, DDF, or EOT discrepancies.

Research Question 2: Does the gender direction of the DIF, DDF, and EOT discrepancies predict husbands', and wives', outcome variables?

When husbands had higher DIF than their wives, husbands' Empathy Provided and Empathy Received decreased. There were no effects on husbands' outcome variables when wives had the higher DIF.

When husbands had higher DDF than their wives, husbands' Empathy Provided, Empathy Received, and Turn Toward decreased, and their Turn Away increased. There were no effects on husbands' outcome variables when wives had the higher DDF.

The EOT gender direction alone did not predict any of the husbands' outcome variables.

The DIF, DDF, and EOT gender directions did not predict any of the wives' outcome variables.

Interactions:

Husbands had a significant Discrepancy by Direction interaction for EOT; when couple partners had EOT discrepancies *and* when husbands had higher EOT than did wives, husbands' Turn Against increased. There were no interactive effects for either gender when wives had higher EOT than did husbands.

Wives' showed no Discrepancy by Direction interactions for any of the variables.

Hypotheses 1, 2, and 3:

Based on the study by Yelsma and Marrow (2003), none of the hypotheses were supported. As such, there were no significant effects for husbands', or wives', Relationship Dissatisfaction when wives were higher than husbands on DIF. There were no significant effects for husbands' Relationship Dissatisfaction when they were higher than wives on DDF and EOT.

Up to this point in the study with Community couples, the findings have shown that, most of the husbands', and wives', own alexithymia variables were significantly associated with their own outcome variables (intrapersonal correlations). It can also be seen that in the interpersonal correlations, husbands' alexithymia variables had far more significant associations with wives' outcome variables than wives' alexithymia variables had with husbands' outcome variables.

Furthermore, the APIM analyses demonstrate that, predominantly, it was partners' *own alexithymia* variables that influenced their outcome variables (actor effects), with minimal mutual influences emerging (i.e., partner effects). The discrepancy analyses indicate that whilst differences between partners in total alexithymia, DIF, DDF, and EOT affected husbands and wives in various ways, the effects were again largely based on their own alexithymia-related scores rather than on their partners' scores.

Given the influences of partners' own alexithymia on their outcome variables, and findings of few direct effects of alexithymia on relationship dissatisfaction, the final phase in this study was to investigate indirect effects of alexithymia on the outcome variables for each gender. In doing so, the data were analysed utilising Structural Equation Modeling (SEM) through LISREL (Version 8.80; Jöreskog & Sörbom, 2004).

This was with a view to gaining a deeper understanding of how husbands', and wives', variables were related, and establishing whether the pathway through which alexithymia affects relationship dissatisfaction was direct, or whether it was mediated by the empathy and/or emotional connection variables. An additional value of this analysis was the possibility of discovering a model that could have merit in the treatment of couples who are adversely affected by alexithymia difficulties within their relationships. This analysis is presented in the next section.

Phase Four: Structural Equation Modeling

Overview of the Issue

Within the previous research that has examined alexithymia variables and couples' relationship dissatisfaction, mediation analyses have been conducted in five of the studies (Cordova et al., 2005; Dunham, 2008; Frye-Cox & Hesse, 2013; Mirgain & Cordova, 2007; Wachs & Cordova, 2007). Although path analysis was employed by Eid and

Boucher (2012), Frye and Feistman (2010), and Humphreys et al. (2012), this was utilised to test associations rather than specific mediation effects.

Within the previous mediation studies, regressions were used to assess whether intimate safety mediated the relationship between DIF and relationship dissatisfaction, and between DDF and relationship dissatisfaction (Cordova et al., 2005; Dunham, 2008; Mirgain & Cordova, 2007; Wachs & Cordova, 2007); however, Mirgain and Cordova (2007) used a composite variable of a range of emotion skills (including a composite DIF and DDF variable), and Wachs and Cordova (2007) analysed husbands and wives as a single group. Also, none of these studies took into account the possible nonindependence of the data. The study by Frye-Cox and Hesse (2013) examined the total TAS-20 in association with couple partners' loneliness, intimate communication, and relationship dissatisfaction. These authors accounted for data relatedness, analysed males and females separately through the AMOS program, and tested direct and indirect pathways.

Hence, there does not appear to be any research that is specifically comparable to the current study. As such, the following research questions were examined:

Research Questions

- RQ1. Is the association between alexithymia and relationship dissatisfaction mediated by the empathy and emotional connection variables?
- RQ2. Do the pathways differ for husbands and wives?

Overview of Structural Equation Modeling (SEM)

SEM utilises specific terminology when referring to the different kinds of variables in the analyses, and the procedure requires consideration of key statistical assumptions. To assist readers who may be unfamiliar with SEM, these are outlined below. Furthermore, prior to the main analyses, there was a need to identify extraneous variables that had the potential to confound the relationships among the study variables.

Terminology of Variables

SEM essentially embodies several regression models, and a variable can be both a predictor and an outcome. In SEM parlance, the alexithymia measure is an *exogenous*

variable because it initiates the causal sequence and is therefore assumed to be unaffected by extraneous variables outside the causal system. All of the other measures in the models are called *endogenous* variables because they do not initiate the causal sequence and are therefore assumed open to outside influences.

In testing mediator models, exogenous variables may also be referred to as independent variables, and endogenous variables can be partitioned into mediator or outcome variables (as with empathy provided, empathy received, turn toward (myself to other, MO, and other to self, OS), turn away MO and OS, turn against MO and OS, more positive than negative interactions, and positive emotional connection). The eventual outcome can be considered the dependent variable (as with relationship dissatisfaction). Furthermore, all of the study measures may be termed indicator variables (Kline, 2005).

In SEM analyses, the indicator variables are presumed to be imperfect measures of their underlying latent variables. The latent variable, alexithymia, was measured by the indicators of difficulty identifying feelings (DIF), difficulty describing feelings (DDF), and externally oriented thinking (EOT), which are presumed to be driven by alexithymia. Empathy provided, empathy received, and relationship dissatisfaction were each treated as single indicator latent variables. The latent variables turn toward, turn away, and turn against were each measured with a 'myself to other' (MO) and an 'other to self' (OS) indicator, and the latent variable positive emotional connection was measured by the indicators more positive than negative interactions and positive emotional connection to partner. By treating indicators as imperfect measures of their latent constructs, SEM is able to account for measurement error.

SEM Assumptions

The SEM assumptions include multivariate normality, linearity, and an absence of multicollinearity, and hence, the data were tested for violations of these assumptions.

Multivariate normality. SEM assumes that the (14) measures being analysed are *multivariate normal* (Kline, 2005). This assumption was violated for both husbands', and wives', data, which was addressed by inputting Spearman (non-parametric) correlations into the SEM analysis (Lebart, Morineau, & Warwick, 1984).

Linearity. SEM assumes that the bivariate relationships among the (14) measures are *linear* rather than *curvilinear*. The most straight-forward way to test for linearity is to

examine the scatterplots of the bivariate relationships. There were no obvious curvilinear trends present for either the husbands', or wives', data, which indicated that the linearity assumption was met.

Multicollinearity. SEM assumes an absence of *multicollinearity*. Multicollinearity exists when there are substantial correlations ($> .9$) among the latent variables. In the present study, the correlation between two of the latent constructs (empathy provided and empathy received) was around .9 for both husbands and wives. To avoid computational errors in the estimation of the path coefficients for pathways emanating from collinear constructs, these coefficients were estimated with separate regression models and input to the SEM analysis (Grewal, Cote, & Baumgartner, 2004).

Having considered the SEM assumptions, it was necessary to identify control variables that may be confounding elements in the relationships among the latent variables.

Identifying the Control Variables

The couple partners' demographic variables were potential control variables that could result in spurious relationships being observed among the latent variables. In order to confound the relationships among the latent variables, a control variable needs to be significantly correlated with at least two of the indicators, and the indicators need to come from different latent variables.

Testing indicated the non-normality of several control and study variables, and therefore, the non-parametric Spearman correlation was considered a more appropriate measure of association than the parametric Pearson correlation. For the non-binary categorical variable of Occupation, eta-squared was used as the measure of association. The correlations between the control variables and the study variables are appended in Table A1 for husbands and Table A2 for wives.

Husbands' Control Variables

For husbands, there were five control variables that satisfied the required criterion: Age, Ethnicity, Education, Occupation, and Work Hours. As seen in Table A1, for husbands, findings indicated that higher Age was associated with higher Turn Toward (myself to other - MO), lower Turn Away (MO), and lower Turn Away (other to self - OS). With Ethnicity, being Caucasian correlated with lower Turn Away (MO), Turn Away (OS), and

Turn Against (MO). Lower Education was associated with greater Difficulty Identifying Feelings (DIF) and Externally Oriented Thinking (EOT).

Examining the Occupation variable required analysis with ANOVA and post hoc pairwise comparisons using least significant difference (LSD) tests. Findings indicated a significant association between Occupation and DDF, $F = 2.21, p = .046$, and Occupation and Turn Away (OS), $F = 2.45, p = .028$. The ‘skilled manual’ occupation showed the highest DDF ($M = 15.16, SD = 4.60$), and was significantly different to ‘advanced professional’ ($M = 11.82, SD = 5.01, p = .008$), ‘administration personnel’ ($M = 11.93, SD = 4.11, p = .033$), and ‘clerical/technical’ ($M = 11.60, SD = 4.28, p = .007$). The ‘skilled manual’ occupation also showed the highest Turn Away (OS) ($M = 2.16, SD = 1.01$), and was significantly different to ‘advanced professional’ ($M = 1.35, SD = 0.64, p = .002$), and ‘clerical/technical’ ($M = 1.38, SD = 0.98, p = .005$). Greater work hours correlated with higher DIF, and with higher Relationship Dissatisfaction.

Importantly, no control variable was correlated with indicators from more than two latent variables, meaning that the control variables would have a minimal impact on the model parameters. Analyses run with and without the control variables confirmed this. The husbands’ control variables were therefore excluded from subsequent analyses.

Wives’ Control Variables

As seen in the appended Table A2 for wives, there were also five control variables that satisfied the correlation criterion: Relationship Duration, Age, Number of Previous Relationships, Occupation, and Relationship Status (only two of these, Age and Occupation, were common to husbands and wives). Longer Relationship Duration correlated with lower DIF, higher EOT, and lower Turn Away (OS). Higher Age correlated with lower DIF, greater Turn Toward (OS), lower Turn Away (MO), and lower Turn Away (OS). Having had a greater Number of Previous Relationships correlated with lower EOT, and higher Turn Toward (MO).

For the Occupation variable, findings indicated a significant association between Occupation and having More Positive than Negative Interactions, $F = 4.05, p = .004$, and Occupation and Positive Emotional Connection to partner, $F = 2.66, p = .037$. The ‘advanced professional’ occupation showed the highest Positive to Negative Interactions ($M = 4.92, SD = 0.28$), and was significantly different to ‘clerical/technical’ ($M = 4.06, SD = 1.14, p = .003$), and the ‘other’ category ($M = 3.88, SD = 1.55, p = .004$). The ‘advanced

professional' occupation also showed the highest Positive Emotional Connection ($M = 4.85$, $SD = 0.38$), and was significantly different to 'clerical/technical' ($M = 4.00$, $SD = 1.32$, $p = .027$), and the 'other' category ($M = 3.50$, $SD = 1.41$, $p = .004$). Being in a de facto relationship correlated with higher DIF, and with higher Relationship Dissatisfaction. Only the Age control variable was correlated with indicators from more than two latent variables (DIF, Turn Toward (OS), Turn Away (MO), and Turn Away (OS)). Analyses run with and without the control variables produced the same pattern of results. The wives' control variables were therefore excluded from subsequent analyses.

Summary

Testing of potentially spurious influences on the findings indicated that none of the husbands', or wives', demographic variables had a confounding effect. Hence, the control variables were excluded from the SEM analyses.

Following testing of the potential confounding influences of the control variables, the next step was to formulate the causal models. To examine the research questions, consideration was given to the various pathways through which Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection may result in a plausible mediation model explaining the association between Alexithymia and Relationship Dissatisfaction.

Formulating the Causal Models

There were seven possible competing structural models that could be proposed to account for the observed correlations among the indicators. The models differed in terms of the configurations of the six latent variables mediating between Alexithymia and Relationship Dissatisfaction. Figures 18 to 24 depict each of the seven different configurations.

Hypothesised model where Alexithymia leads to Empathy Provided and Empathy Received, then to the Emotion resulting in Relationship Dissatisfaction.

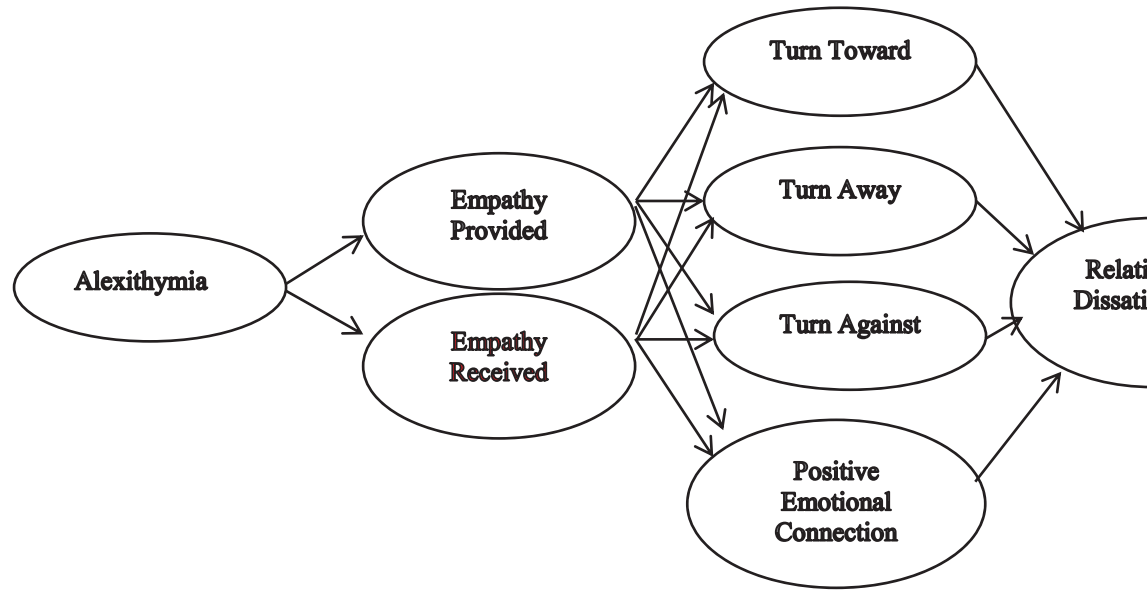


Figure 18. Structural Model 1.

Hypothesised model where Alexithymia leads to the Emotional Connection variables, then to the Empathy variables, then to the Relationship Dissatisfaction.

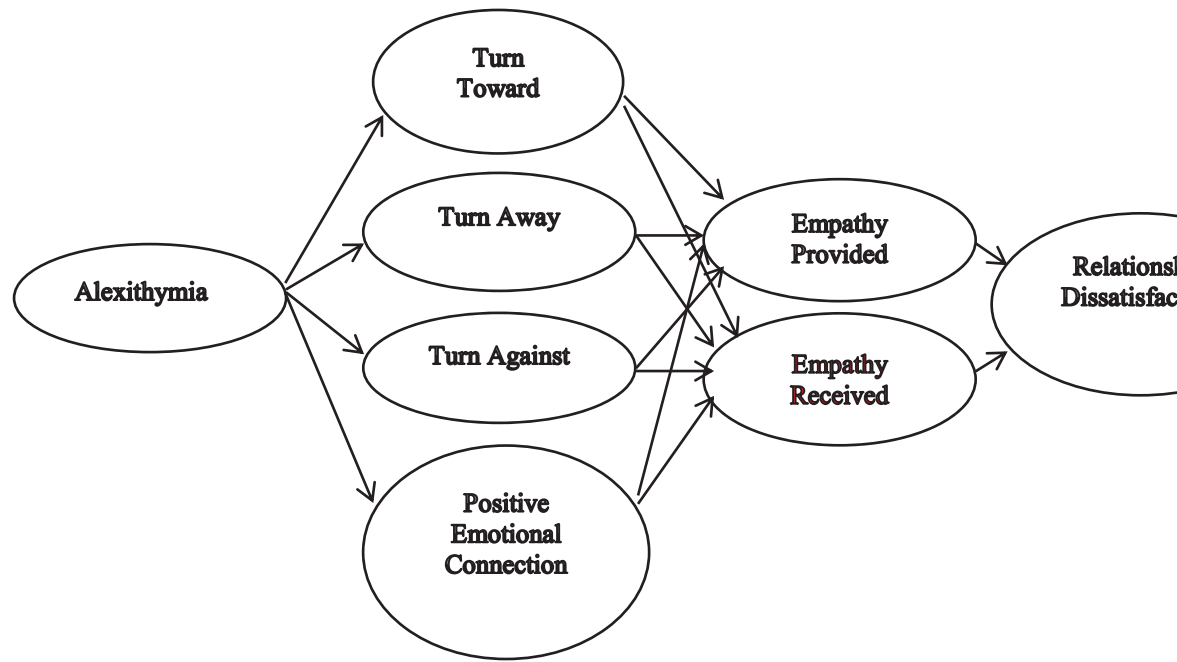


Figure 19. Structural Model 2.

Hypothesised model where Alexithymia leads to Empathy Provided, then to Empathy Received, then to the Emo variables, resulting in Relationship Dissatisfaction.

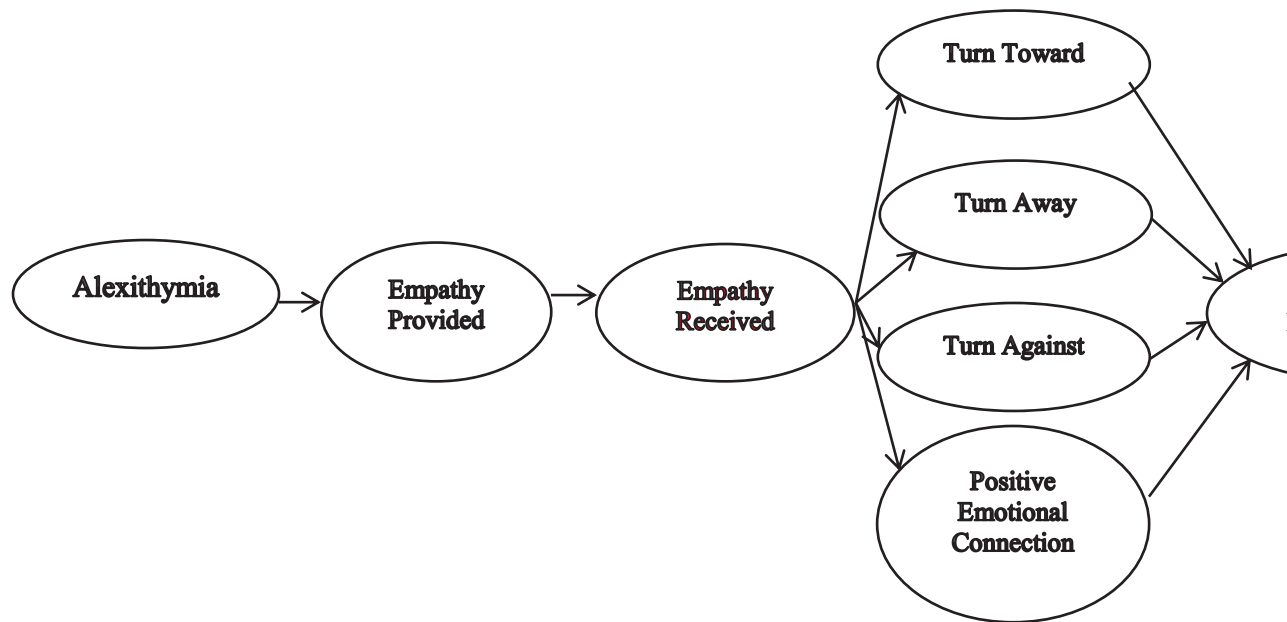


Figure 20. Structural Model 3

Hypothesised model where Alexithymia leads to Empathy Received, then Empathy Provided, then the Emotional variables, resulting in Relationship Dissatisfaction.

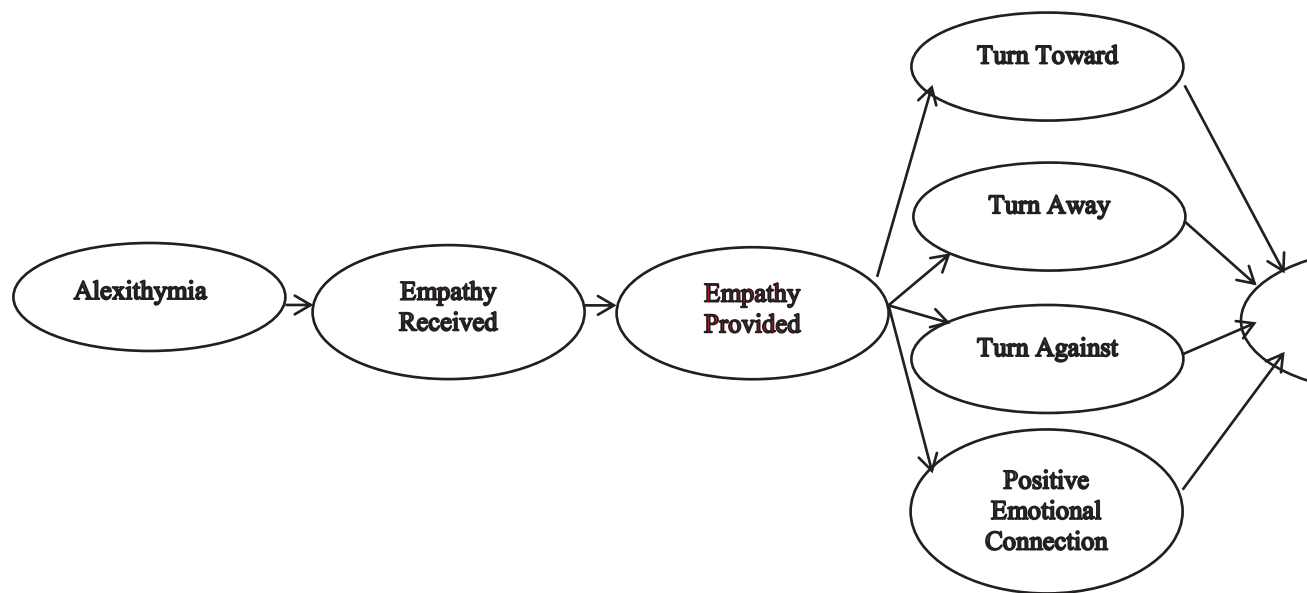


Figure 21. Structural Model 4

Hypothesised model where Alexithymia leads to the Emotional Connection variables, then to Empathy Provided resulting in Relationship Dissatisfaction.

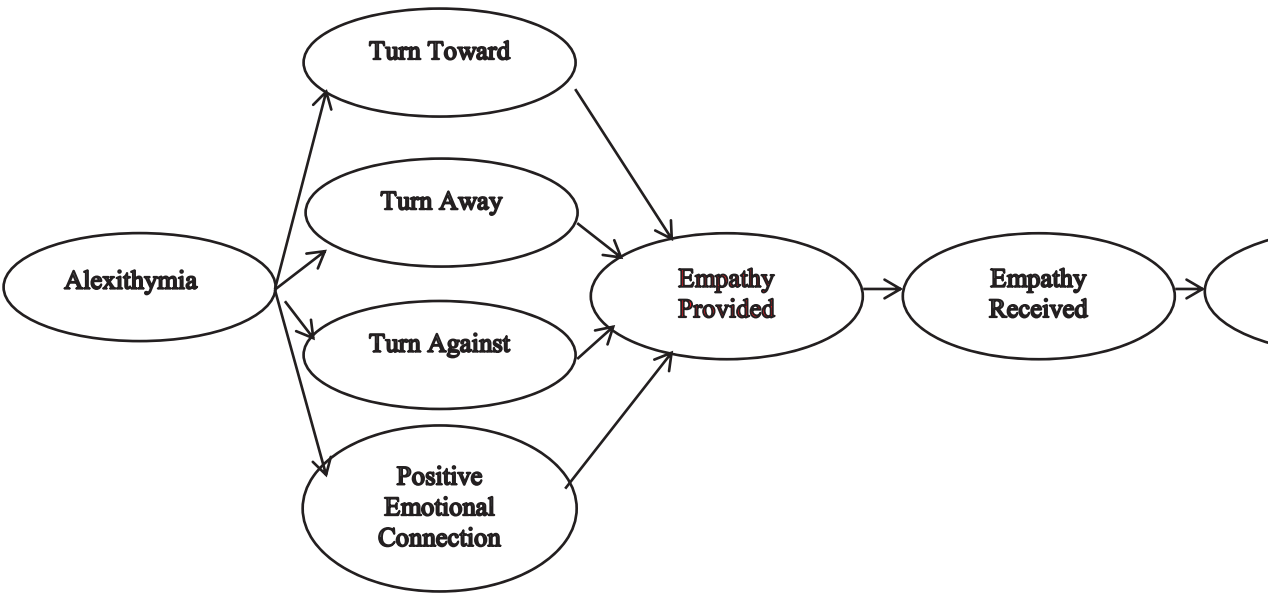


Figure 22. Structural Model 5

Hypothesised model where Alexithymia leads to the Emotional Connection variables, then to Empathy Received resulting in Relationship Dissatisfaction.

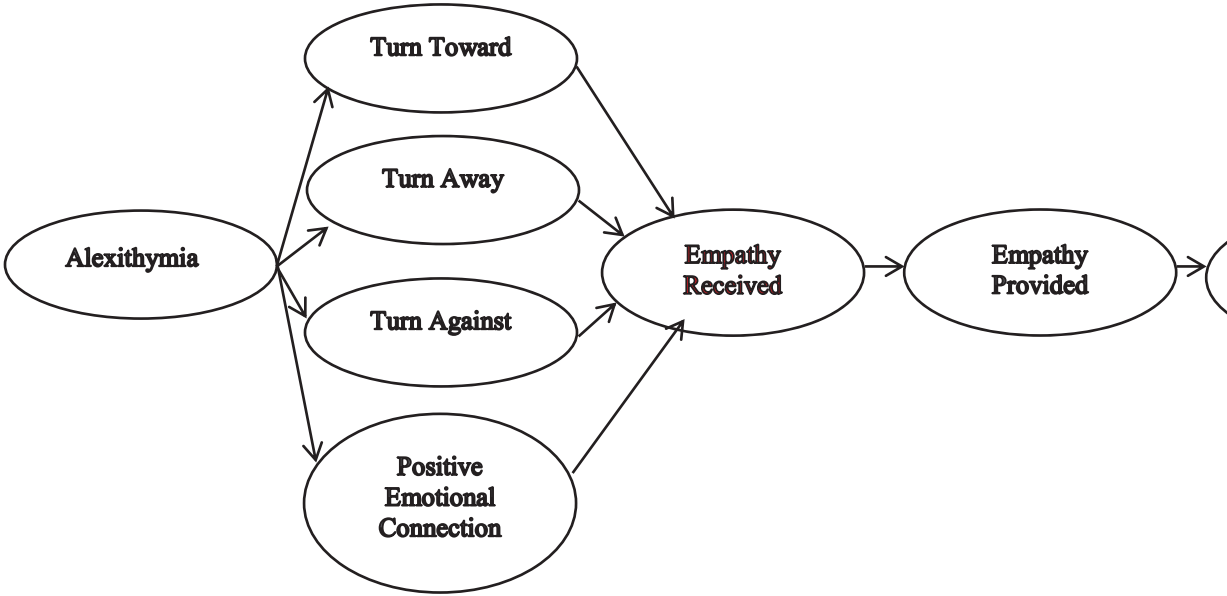


Figure 23. Structural Model 6

Hypothesised model where Alexithymia leads to the Emotional Connection variables and the Empathy variables, Dissatisfaction.

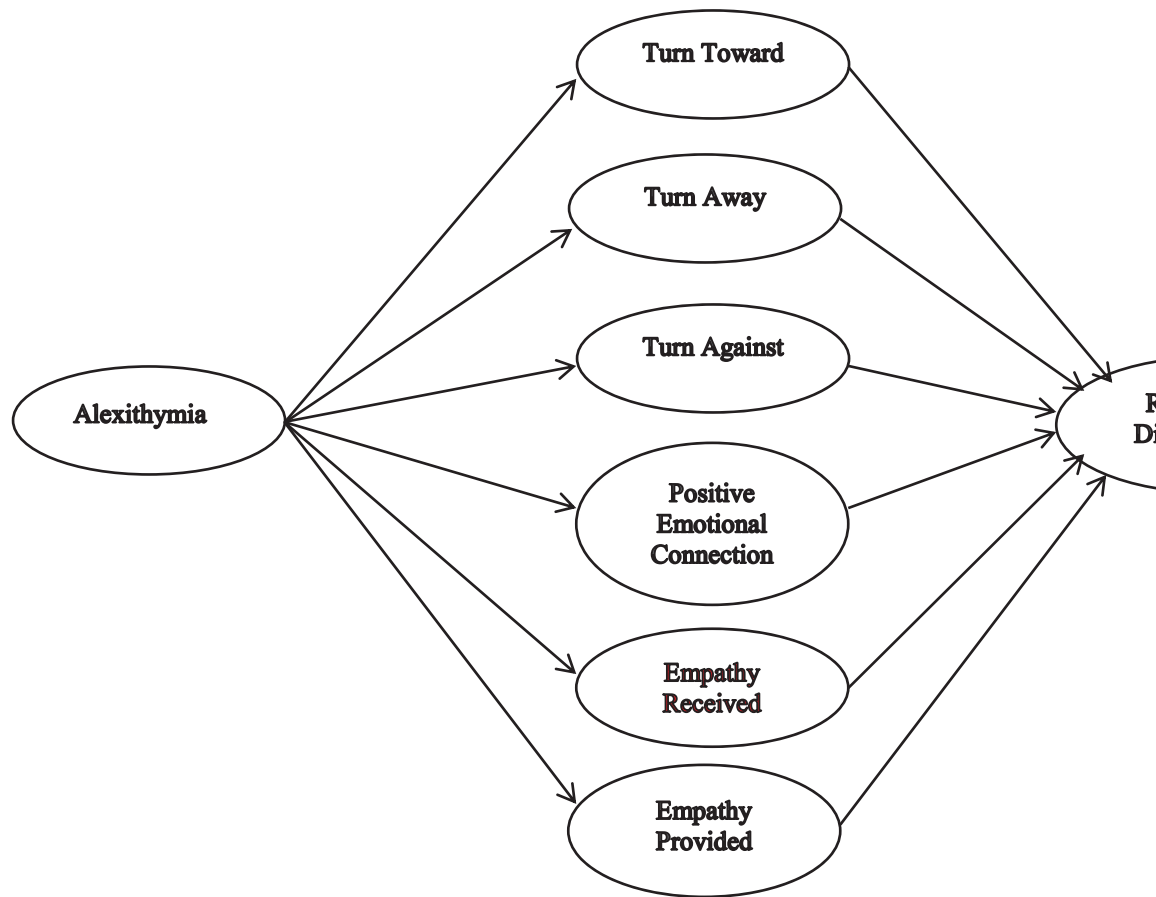


Figure 24. Structural Model 7

Following the formulations of the possible models through which alexithymia may lead to relationship dissatisfaction, the SEM analytical strategy was devised.

SEM Analytical Strategy

The analytical strategy required the analysis to occur in two stages. Stage 1 involved testing the measurement model, which was necessary to firstly determine whether the measurement model provided an adequate fit for the data - if the fit was shown to be adequate, the analysis would then move to the second stage in which the structural models could be tested and compared. However, there were initial considerations about the sample size in terms of whether to analyse the sample as a whole or separately in terms of gender.

Sample Size

As suggested by Kline (2005), a 'rule of thumb' in obtaining reliable SEM solutions requires at least five participants for each parameter that is estimated from the data. Applying this 'rule' to the Stage 1 measurement model, which had 61 free parameters, gave a sample size of 305. Kline's 'rule of thumb' was also applicable to the testing of the Stage 2 structural models; each of which had no more than 22 free parameters, giving a sample size of 110. The present sample sizes of 170 males and 170 females fell short of the first 'rule of thumb' estimate, and were within the bounds of the second estimate.

However, to analyse the sample as a whole, the total sample size of 340 was insufficient to test a structural model consisting of a mixture of the 16 husbands' and wives' latent variables. This was because the number of possible structural models that might be derived from a subset of the 16 variables was too large for any kind of systematic testing. Moreover, the option of forming 8 integrated 'couple' latent variables was contraindicated because the spouses' data were nonindependent. Additionally, from a therapeutic perspective, there was merit in assessing models that could provide information on whether the pathways operated differently for husbands and wives. Having this knowledge was considered of future value for clinicians treating couples whose relationships are distressed due to their own, or their partner's, alexithymia. Therefore, separate SEM analyses were conducted on the husbands', and the wives', data.

Testing the Measurement Model

SEM assumes that indicators in the measurement model are multivariate normal. The following fit indices, all derived from the chi-square, were used: The Root Mean Square Error of Approximation (RMSEA) in conjunction with its 90% confidence interval (acceptable model fit is indicated by a 90% confidence interval that includes the value of .8 [Browne & Cudeck, 1993; Steiger, 1990; Hu & Bentler, 1999]); the Non-normed Fit Index (NNFI; values $> .9$ indicate an acceptable fit [Bollen, 1989; Bentler, 1990; Hu & Bentler, 1999]); the Comparative Fit Index (CFI; values $> .9$ indicate an acceptable fit [Bentler, 1990, 1995]), and the Standardised Root Mean Square Residual (SRMR; values $< .1$ indicate an acceptable fit [Hooper, Coughlan, & Mullen, 2008; Benet-Martinez & Karakitapoglu-Aygun, 2003; Hu & Bentler, 1999]).

The Stage 1 measurement model, which was the same for all of the structural models, consisted of eight latent variables and 14 indicator variables. An important part of testing a measurement model involves estimating the measurement error that is inherent in using indicator variables (i.e., the indicators of psychological constructs) to measure latent variables (i.e., the psychological constructs that ‘drive’ the indicators).

To estimate measurement error from the data, there must be at least two indicators per construct. Because the study variables Empathy Provided, Empathy Received, and Relationship Dissatisfaction are all one-indicator constructs, their measurement errors could not be estimated from the data. Therefore, they had to be estimated from the reliabilities of the indicators (Goodwin & Plaze, 2000), and published Cronbach’s alpha coefficients were utilised to estimate the error variance. A Cronbach’s alpha of .84 has been reported for both Empathy Provided and Empathy Received (Gurman, 1977), and a Cronbach’s alpha of .93 has been reported for Relationship Dissatisfaction (Snyder, 1997). Measurement errors were derived from these reliabilities (measurement error = $1 - \text{reliability}$) and added to the measurement model as shown in Figure 25 for husbands and Figure 26 for wives. Correlations among the latent variables, after controlling for measurement error, are presented in Table 52 for husbands and Table 53 for wives. All correlations were significant at $p < .01$, with some significant at $p < .001$.

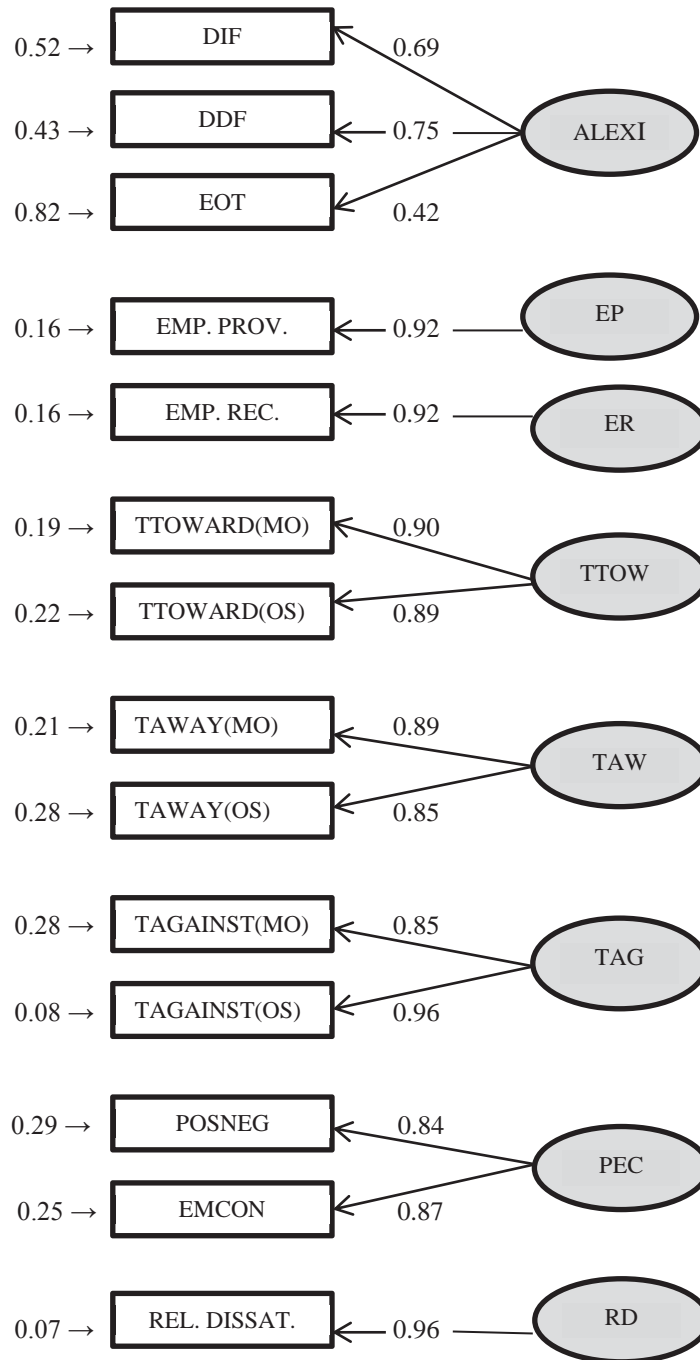


Figure 25. Confirmatory Factor analysis of the measurement model for husbands.

Note. The coefficients to the left of the indicator variables reflect measurement error. The coefficients between the latent and indicator variables are factor loadings. DIF = difficulty identifying feelings, DDF = difficulty describing feelings, EOT = externally oriented thinking, ALEXI = alexithymia, EMP. PROV. and EP = empathy provided, EMP. REC. and ER = empathy received, TTOWARD(MO) = turn toward (myself to other), TTOWARD(OS) = turn toward (other to self), TTOW = turn toward, TAWAY(MO) = turn away (myself to other), TAWAY(OS) = turn away (other to self), and TAW = turn away, TAGAINST(MO) = turn against (myself to other), TAGAINST(OS) = turn against (other to self), TAG = turn against, PEC = positive emotional connection, REL. DISSAT. and RD = relationship dissatisfaction.

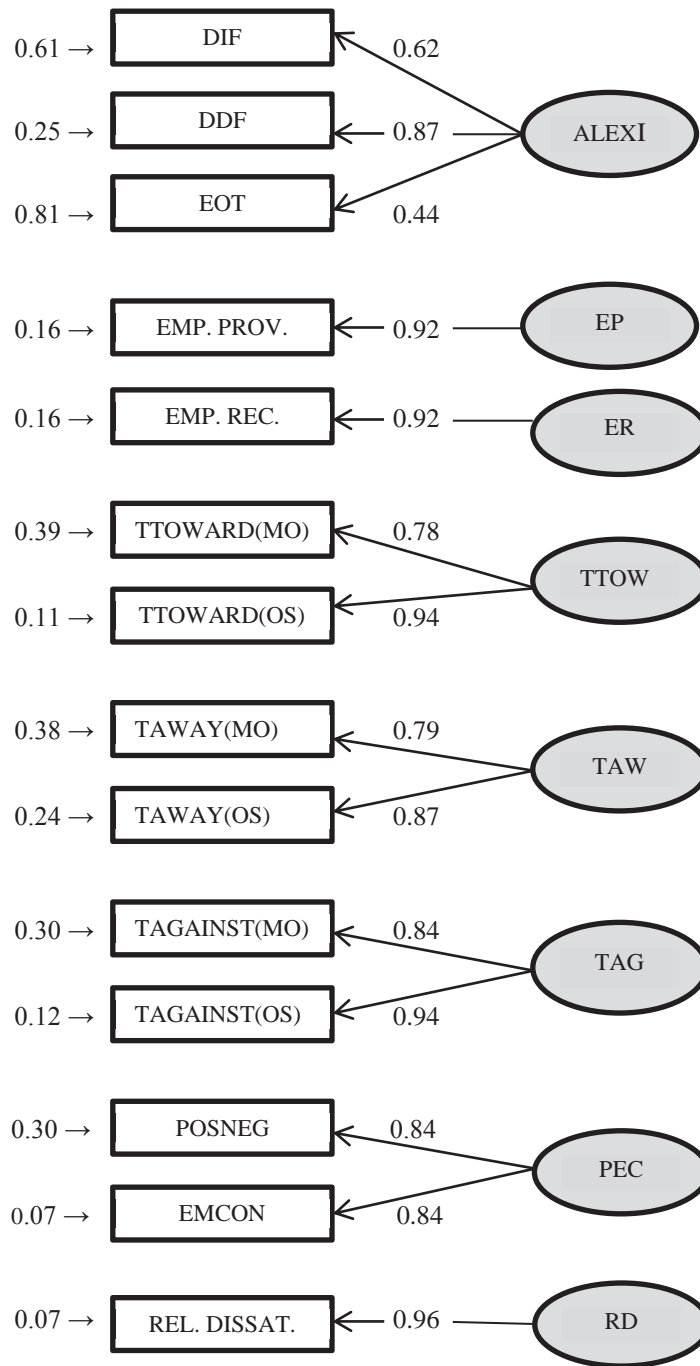


Figure 26. Confirmatory Factor analysis of the measurement model for wives.

Note. The coefficients to the left of the indicator variables reflect measurement error. The coefficients between the latent and indicator variables are factor loadings. DIF = difficulty identifying feelings, DDF = difficulty describing feelings, EOT = externally oriented thinking, ALEXI = alexithymia, EMP. PROV. and EP = empathy provided, EMP. REC. and ER = empathy received, TTOWARD(MO) = turn toward (myself to other), TTOWARD(OS) = turn toward (other to self), TTOW = turn toward, TAWAY(MO) = turn away (myself to other), TAWAY(OS) = turn away (other to self), and TAW = turn away, TAGAINST(MO) = turn against (myself to other), TAGAINST(OS) = turn against (other to self), TAG = turn against, PEC = positive emotional connection, REL. DISSAT. and RD = relationship dissatisfaction.

Table 52***Correlation Matrix of Latent Variables for Husbands***

Measures	Alexi	Emp. Prov.	Emp. Rec.	Turn Toward	Turn Away	Turn Against	PEC	RD
Alexithymia	1.000							
Emp. Prov.	-0.682	1.000						
Emp. Rec.	-0.675	0.911	1.000					
Turn Toward	-0.426	0.546	0.616	1.000				
Turn Away	0.489	-0.546	-0.637	-0.724	1.000			
Turn Against	0.313	-0.445	-0.559	-0.534	0.537	1.000		
Pos. Emot. Conn.	-0.431	0.528	0.756	0.680	-0.527	-0.548	1.000	
Rel. Dissat.	0.377	-0.492	-0.658	-0.541	0.558	0.410	-0.654	1.000

Note. $N = 170$. Alexi = alexithymia, Emp. Prov. = empathy provided, Emp. Rec. = empathy received, PEC and Pos. Emot. Conn. = positive emotional connection, and RD and Rel. Dissatisfaction = relationship dissatisfaction.

Correlations in bold are significant at $p < .01$.

Table 53***Correlation Matrix of Latent Variables for Wives***

Measures	Alexi	Emp. Prov.	Emp. Rec.	Turn Toward	Turn Away	Turn Against	PEC	RD
Alexithymia	1.000							
Emp. Prov.	-0.385	1.000						
Emp. Rec.	-0.391	0.893	1.000					
Turn Toward	-0.138	0.417	0.611	1.000				
Turn Away	0.218	-0.442	-0.564	-0.736	1.000			
Turn Against	0.244	-0.486	-0.596	-0.535	0.601	1.000		
Pos. Emot. Conn.	-0.367	0.520	0.671	0.734	-0.668	-0.642	1.000	
Rel. Dissat.	0.373	-0.576	-0.734	-0.568	0.604	0.539	-0.572	1.000

Note. $N = 170$. Alexi = alexithymia, Emp. Prov. = empathy provided, Emp. Rec. = empathy received, PEC and Pos. Emot. Conn. = positive emotional connection, and RD and Rel. Dissatisfaction = relationship dissatisfaction.

Correlations in bold are significant at $p < .01$.

Testing indicated that the measurement model provided a good fit for both the husbands', and the wives', data. For husbands, the CFI and NNFI were .985 and .974 respectively ($> .9$), the SRMR was .034 ($< .1$), and the RMSEA was .074 ($< .08$). For wives, the CFI and NNFI were .972 and .952 respectively ($> .9$), the SRMR was .049 ($< .1$), and the RMSEA was .091 (with a 90% confidence interval, .071 - .112, that includes the value of .8). Having established a satisfactory fit for both measurement models, the next phase involved testing the structural models.

Testing the Structural Models

Confirmation of the measurement model was an important initial step in the SEM process. This is because if a measurement model does *not* fit the data, it must be concluded that the latent variables are being measured inappropriately, which means that there is no point in testing the structural model. As such, the analysis stops and it is concluded that

the structural model is not viable (Long, 1983). If the measurement model *does* fit the data, as it did here, the next procedure is to test the structural models through examination of the applicable fit statistics.

As can be seen in Table 54, the findings indicated that for both husbands, and wives, all five fit statistics concurred that Model 1 provided the best fit for the data. For husbands, Model 2 satisfied three of the five fit criteria, Model 3 met all five fit criteria, Model 4 met three of the five criteria, Models 5 and 6 each met two of the five criteria, and Model 7 met three of the five fit criteria. For wives, Models 2 and 3 met two of the five criteria, Model 4 met one of the five criteria, Models 5 and 6 did not meet any of the criteria, and Model 7 met one of the five criteria.

Further confirmation of the superiority of Model 1 was gained through an examination of the Akaike Information Criterion (AIC; Akaike, 1974). An AIC provides an objective and statistical way of selecting an optimal model from a set of models. It is based on maximum likelihood principles, and is easy to interpret because it allows “a quick strength-of-evidence comparison and ranking” of models (Burnham & Anderson, 2004, p. 271). Whilst an AIC statistic has no meaning for data representing only one model, its value becomes apparent when comparing each AIC within a series of models (Akaike, 1974; Burnham & Anderson, 2002, 2004).

In assessing the merits of the models in a set, the model with the lowest AIC is considered the best-fitting model (Akaike, 1974; Burnham & Anderson, 2002, 2004), and the AIC of each of the other models is then compared to the lowest AIC. Models with AICs differing from the best-fitting model by 2 or less have substantial support, those in which the difference is between 4 and 7 inclusive have less support, and those with a difference greater than 10 have no support (Burnham & Anderson, 2004, p. 271).

The findings in the current study indicate that for the husbands, the lowest AIC value was 99.67 (Model 1) and that the next lowest value was 136.83 (Model 3). For the wives, the lowest AIC value was 115.78 (Model 1) and the next lowest value was 176.85 (Model 2). Following the guidelines above, these values suggest that for each gender, the AIC value was lowest for Model 1, and that all of the AICs for the other models had no support. Model 1 was therefore selected as the best explanation of the husbands', and wives', data.

Table 54

Husbands' and Wives' Fit Statistics for Each of the Seven Structural Models

Structural Model	χ^2/df	Comparative Fit Index (CFI)	Non-normed Fit Index (NNFI)	Standardised Root Mean Square Residual (SRMR)	Root Mean Square Error of Approximation (RMSEA)	Model AIC
Husbands						
Model 1	37.67/27 = 1.40	.992	.986	.035	.048 (90% CI: .000, .082)	1
Model 2	93.33/27 = 3.46	.949	.916	.078	.132 (90% CI: .106, .159)	1
Model 3	90.83/32 = 2.84	.960	.945	.052	.104 (90% CI: .079, .130)	1
Model 4	135.93/32 = 4.25	.941	.917	.065	.139 (90% CI: .115, .163)	1
Model 5	175.50/32 = 5.48	.918	.884	.087	.163 (90% CI: .140, .187)	2
Model 6	168.55/32 = 5.27	.919	.886	.088	.159 (90% CI: .136, .183)	2
Model 7	127.33/30 = 4.24	.933	.900	.071	.139 (90% CI: .114, .164)	1
Wives						
Model 1	59.78/27 = 2.21	.971	.952	.058	.085 (90% CI: .056, .114)	1
Model 2	120.85/27 = 4.48	.925	.875	.095	.143 (90% CI: .118, .170)	1
Model 3	180.17/32 = 5.63	.911	.875	.074	.166 (90% CI: .142, .189)	2
Model 4	244.14/32 = 7.63	.882	.834	.089	.198 (90% CI: .175, .222)	2
Model 5	168.94/32 = 5.28	.895	.852	.109	.159 (90% CI: .136, .183)	2
Model 6	169.62/32 = 5.30	.895	.852	.108	.160 (90% CI: .136, .184)	2
Model 7	185.63/30 = 6.19	.879	.819	.096	.175 (90% CI: .151, .200)	2

Note. χ^2/df : A value less than 3 indicates a good fit (Kline, 2005).

CFI: A value greater than or equal to .90 indicates a good fit (Hu & Bentler, 1999).

NNFI: A value greater than or equal to .90 indicates a good fit (Hu & Bentler, 1999).

SRMR: A value less than or equal to .1 indicates a good fit (Hu & Bentler, 1999).

RMSEA: A value less than or equal to .08, or a CI that encompass this value, indicates a good fit (Jaccard & Wan, 1996).

Model AIC: The smallest value in the set of models indicates the best fit (Akaike, 1974; Burnham & Anderson, 2002).

Fit statistics that were within the applicable ranges are in boldface.

Having established that Model 1 was the best fit for the data for the husbands and the wives, the next step was to derive the path coefficients within that model.

Deriving the Path Coefficients for Model 1

When deriving the path coefficients for Model 1, a problem was encountered during the maximum likelihood estimation, with the correlation between the latent variables of Empathy Provided and Empathy Received being greater than .89 for both the male and the female data. This resulted in computational errors when estimating the strength of the pathways emanating from Empathy Provided and Empathy Received; all eight pathways were assigned path coefficients that were greater than one. Since the LISREL path coefficients are beta weights, they should (by definition) be less than one. The computational problem was resolved by estimating the path coefficients with partial least squares rather than maximum likelihood.

The spouses' path coefficients for each of the pathways in the structural model, and their significance levels, are presented in Table 55 and Figure 27 for husbands, and Table 56 and Figure 28 for wives. As shown, for husbands, there were three complete pathways that ran from Alexithymia to Relationship Dissatisfaction. One pathway ran through Empathy Provided and then Positive Emotional Connection; a second pathway ran through Empathy Received and then Turn Away; and a third pathway ran through Empathy Received and then Positive Emotional Connection. For wives, there were two complete pathways from Alexithymia to Relationship Dissatisfaction; one pathway ran through Empathy Received and then Turn Away; and the second pathway ran through Empathy Received and Turn Against.

Table 55***Husbands' Data: Path Coefficients for Structural Model 1***

Pathway	Path Coefficient	<i>p</i>-value
Alexithymia → Empathy Provided	-.698	<.001
Alexithymia → Empathy Received	-.694	<.001
Empathy Provided → Turn Toward	.033	.737
Empathy Provided → Turn Away	.000	.998
Empathy Provided → Turn Against	.063	.556
Empathy Provided → Positive Emotional Connection	.250	.004
Empathy Received → Turn Toward	.573	<.001
Empathy Received → Turn Away	-.576	<.001
Empathy Received → Turn Against	-.516	<.001
Empathy Received → Positive Emotional Connection	.876	<.001
Turn Toward → Relationship Dissatisfaction	.043	.798
Turn Away → Relationship Dissatisfaction	.383	.005
Turn Against → Relationship Dissatisfaction	-.056	.598
Positive Emotional Connection → Relationship Dissatisfaction	-.549	<.001

Note. $N = 170$.

$p < .05$.

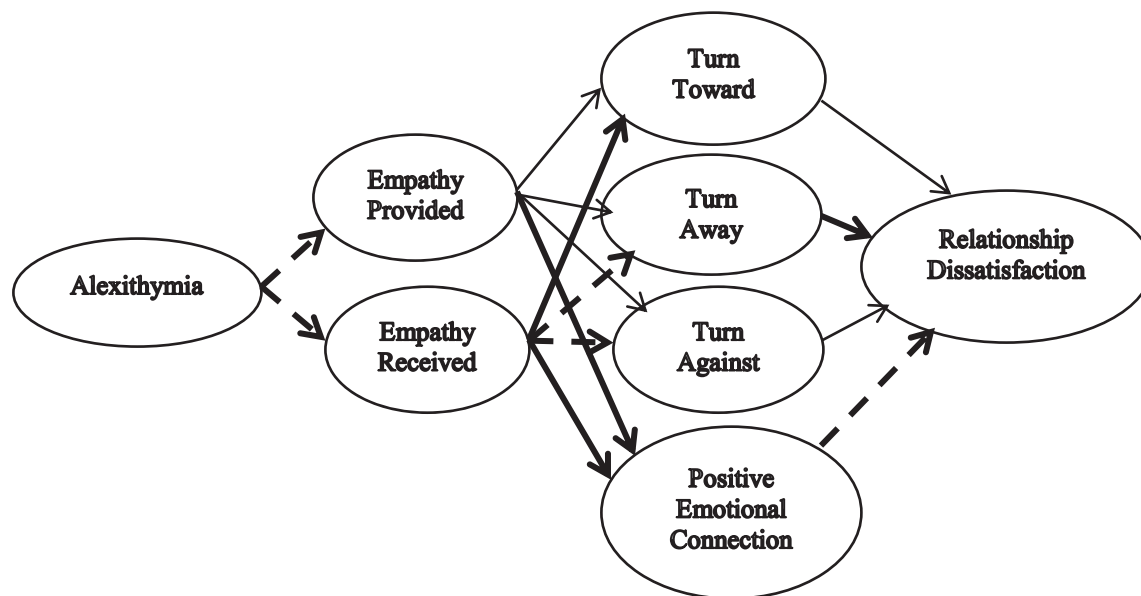


Figure 27. Structural Model 1 pathways for husbands.

Note. Bold dashed lines indicate significant negative pathways; bold solid lines indicate significant positive pathways. All other lines indicate nonsignificant pathways.

Table 56***Wives' Data: Path Coefficients for Structural Model 1***

Pathway	Path Coefficient	<i>p</i>-value
Alexithymia → Empathy Provided	-.424	<.001
Alexithymia → Empathy Received	-.423	<.001
Empathy Provided → Turn Toward	.022	.824
Empathy Provided → Turn Away	-.025	.808
Empathy Provided → Turn Against	-.086	.396
Empathy Provided → Positive Emotional Connection	.061	.543
Empathy Received → Turn Toward	.496	<.001
Empathy Received → Turn Away	-.405	<.001
Empathy Received → Turn Against	-.393	<.001
Empathy Received → Positive Emotional Connection	.448	<.001
Turn Toward → Relationship Dissatisfaction	.020	.911
Turn Away → Relationship Dissatisfaction	.384	.013
Turn Against → Relationship Dissatisfaction	.228	.043
Positive Emotional Connection → Relationship Dissatisfaction	-.277	.067

Note. $N = 170$.

$p < .05$.

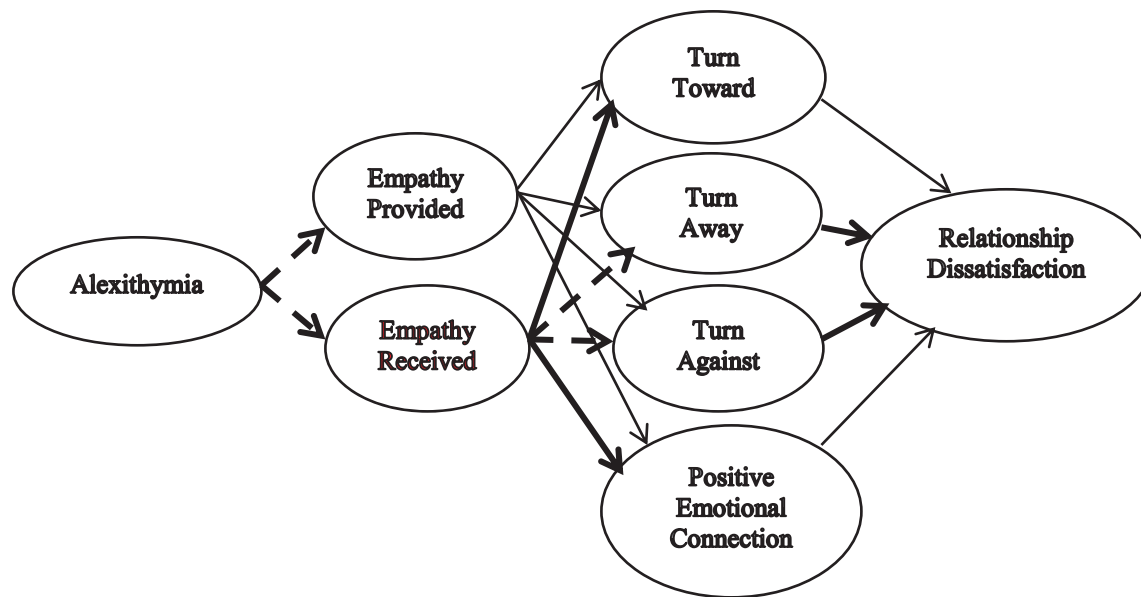


Figure 28. Structural Model 1 pathways for wives.

Note. Bold dashed lines indicate significant negative pathways; bold solid lines indicate significant positive pathways. All other lines indicate nonsignificant pathways.

Having tested the husbands' and wives' pathways for Model 1, the next step was to examine the specific *indirect* pathways between the variables. This was necessary because, although many of the Model 1 variables were significantly correlated, it was the testing of the indirect pathways that was able to fully substantiate any complete pathways that ran all the way through from Alexithymia to Relationship Dissatisfaction.

Testing the Indirect Pathways

Testing of the indirect pathways indicated that for husbands, there were two significant complete pathways. As shown in Table 57 and Figure 29 for husbands, one complete pathway ran from Alexithymia to Empathy Received, then to Turn Away, and then to Relationship Dissatisfaction. The second complete pathway ran from Alexithymia to Empathy Received, then to Positive Emotional Connection, and then to Relationship Dissatisfaction. Although there were significant findings through Alexithymia to Empathy Received to Turn Toward, and through Alexithymia to Empathy Received to Turn Against, the effects from Turn Toward and Turn Against to Relationship Dissatisfaction dissipated, which rendered the pathways incomplete.

Table 57

Husbands' Indirect Pathways between Alexithymia and Relationship Dissatisfaction

Pathway	Strength of Indirect Pathway	<i>p</i> -value
Alexithymia → Empathy Provided → Positive Emotional Connection → Relationship Dissatisfaction	.096	.219
Alexithymia → Empathy Received → Turn Toward	-.398	<.001
Alexithymia → Empathy Received → Turn Away → Relationship Dissatisfaction	.153	.049
Alexithymia → Empathy Received → Turn Against	.358	<.001
Alexithymia → Empathy Received → Positive Emotional Connection → Relationship Dissatisfaction	.334	<.001

Note. *N* = 170.

Significant results for complete pathways are in boldface.

p < .05.

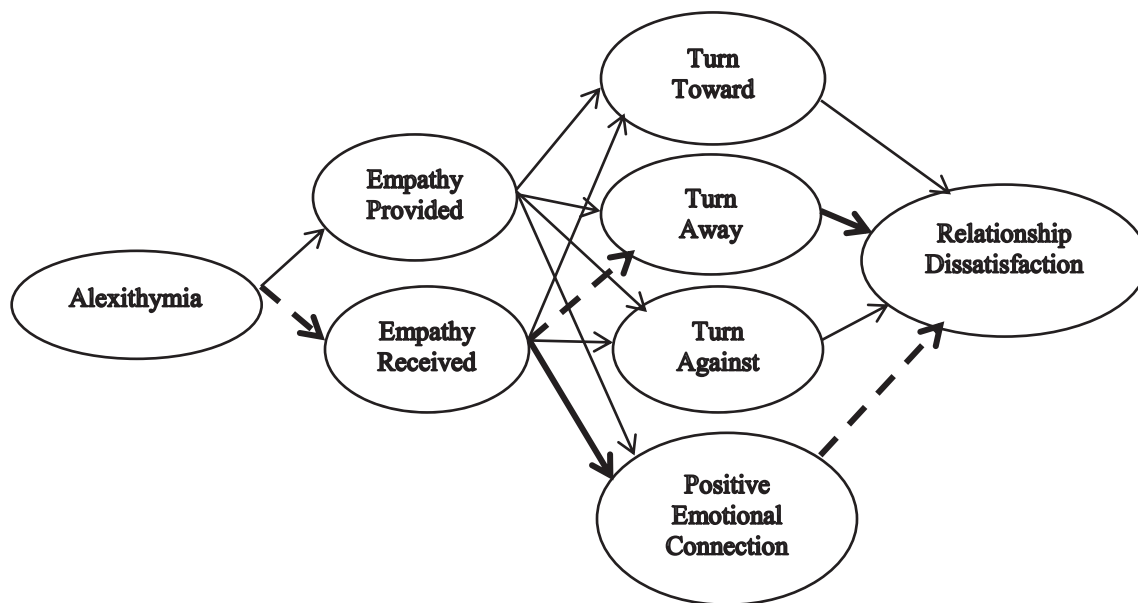


Figure 29. Structural Model 1: Indirect pathways for husbands.

Note. Bold dashed lines indicate significant negative pathways; bold solid lines indicate significant positive pathways. All other lines indicate nonsignificant pathways.

For wives, testing of the indirect effects indicated that there were no significant complete pathways. As seen in Table 58 and Figure 30 for wives, there were two significant results, which reflected incomplete pathways. One was from Alexithymia to Empathy Received, and then to Turn Toward, and the other was from Alexithymia to Empathy Received, and then to Positive Emotional Connection. The effects from Turn Toward and Positive Emotional Connection to Relationship Dissatisfaction dissipated, rendering the pathways incomplete.

Table 58

Wives' Data: Testing the Significance of the Indirect Pathways for Structural Model 1

Pathway	Strength of Indirect Pathway	<i>p</i> -value
Alexithymia → Empathy Received → Turn Toward.	-.210	.007
Alexithymia → Empathy Received → Turn Away → Relationship Dissatisfaction.	.066	.397
Alexithymia → Empathy Received → Turn Against → Relationship Dissatisfaction.	.038	.626
Alexithymia → Empathy Received → Positive Emotional Connection.	-.190	.015

Note. $N = 170$.

Significant results for complete pathways are in boldface.

$p < .05$.

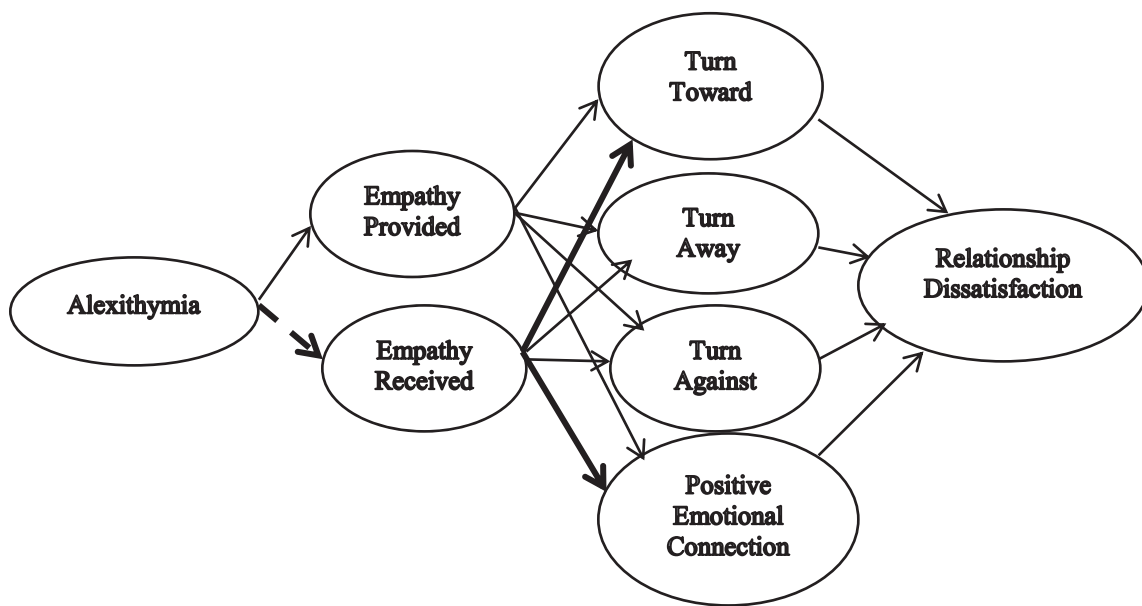


Figure 30. Structural Model 1: Indirect pathways for wives.

Note. Bold dashed lines indicate significant negative pathways; bold solid lines indicate significant positive pathways. All other lines indicate nonsignificant pathways.

The value of testing the indirect effects of the initially significant pathways has been highlighted by the differences found between the initial and the indirect results for both husbands and wives; however, some caution in interpreting the findings is required because the data were cross-sectional rather than longitudinal in nature. This aspect is important due to the limitations that are inherent in conducting SEM analysis.

Limitations of SEM

Although utilising SEM enabled testing of the research questions, the cross-sectional nature of the data precluded establishing directionality of the effects. In other words, causality could not be inferred. According to Shaughnessy and Zechmeister (1997), before conclusions can be drawn that one variable causes another variable, the relationship between the two variables must satisfy three criteria. These criteria are:

- Covariation
- Directionality
- Causal closure

As applied to this study, before it can be concluded that Alexithymia causes a reduction in Empathy Provided, we firstly have to show that the two variables are correlated, that is, that they covary. This is the criterion of *covariation*. Secondly, it has to be shown that Alexithymia precedes a reduction in Empathy Provided, rather than vice-versa. This is the criterion of *directionality*. Thirdly, it needs to be shown that the relationship between Alexithymia and Empathy Provided is closed to outside influences. This is the criterion of *causal closure*. If the relationship between Alexithymia and Empathy Provided are not closed to outside influences, then there might be some third variable (e.g., anxiety) that causes Alexithymia to increase and Empathy Provided to decrease. If this is the case, then the negative correlation between Alexithymia and Empathy Provided would be spurious as it would not reflect an underlying causal relationship between the two variables - it would merely reflect the action of a third variable (e.g., anxiety) that causes people to become highly alexithymic and provide less empathy.

SEM causal modeling operates on data generated by correlational designs. Cross-sectional correlational data can only satisfy the first criterion for causality (covariation); longitudinal correlational data can satisfy criteria one and two (covariation and directionality). Regardless of whether the data are cross-sectional or longitudinal,

however, correlational data can never satisfy the third criterion for causality (causal closure). The experimental design is the only design that satisfies all three criteria (Shaughnessy & Zechmeister, 1997). Limitations notwithstanding, the use of SEM provided a distinctive method of examining associations between the study variables, and it has established preliminary evidence of the specific pathways through which Alexithymia may result in Relationship Dissatisfaction for husbands.

Summary

Research Question 1: Is the association between Alexithymia and Relationship Dissatisfaction mediated by the Empathy and Emotional Connection variables?

SEM analyses indicated that the associations between Alexithymia and Relationship Dissatisfaction were mediated by Empathy and Emotional Connection variables.

Research Question 2: Do the pathways differ for husbands and wives?

The pathways showed similarities and differences for husbands and wives.

Initial SEM testing suggested that the significant complete pathways for both husbands and wives were: Alexithymia → lower Empathy Received → higher Turn Away → higher Relationship Dissatisfaction. Husbands also had complete pathways of: Alexithymia → lower Empathy Provided → lower Positive Emotional Connection → higher Relationship Dissatisfaction, and Alexithymia → lower Empathy Received → lower Positive Emotional Connection → higher Relationship Dissatisfaction. Wives had an additional complete pathway of: Alexithymia → lower Empathy Received → higher Turn Against → higher Relationship Dissatisfaction.

However, after testing the complete *indirect* model pathways, the associations changed. Husbands retained their complete pathways for: Alexithymia → lower Empathy Received → higher Turn Away → higher Relationship Dissatisfaction, and for Alexithymia → lower Empathy Received → lower Positive Emotional Connection → higher Relationship Dissatisfaction.

Wives, on the other hand, had no complete indirect pathways. They showed that: Alexithymia → lower Empathy Received → lower Turn Toward, and that Alexithymia → lower Empathy Received → lower Positive Emotional Connection; however, the effects for both of these pathways dissipated before reaching Relationship Dissatisfaction. This indicates that, although the partial pathways may be meaningful, these associations did not fully account for wives' Relationship Dissatisfaction.

Overall, the SEM findings suggested that Model 1 provided a plausible explanation of the pathways through which husbands' Alexithymia leads to Relationship Dissatisfaction; however, for wives, the strength of the associations was less robust. They also emphasised the importance of taking the additional step of testing indirect pathways.

Although the cross-sectional nature of the data limited the ability to state causal relationships between the variables, there is conceptual value in the preliminary evidence that was found.

As demonstrated, Study 1 provided a comprehensive examination of alexithymia, empathy, emotional connection, and relationship dissatisfaction within couples from the general community, and it has done so from a number of analytical perspectives.

The investigations extended the previous research examining alexithymia and couples' relationships through finding that the alexithymia variables had adverse intrapersonal and interpersonal correlations with variables that are important to couples' relationships, and that they had predictive power in husbands' and in wives' outcomes. The study also found that alexithymia discrepancies between couple partners' were important, and that as the discrepancy gap widened, spouses' empathy and emotional connection were influenced in various ways. Of interest is that the discrepancies did not appear to be directly associated with couples' relationship dissatisfaction, and this was clarified by identifying a plausible model in which empathy and emotional connection indices were shown to mediate that association - fully for husbands, but not for wives.

Although the findings are of value to the wider literature in terms of couples' alexithymia and the outcome variables, the study also served as a foundation for the clinical focus in the current project. In order for the results to be of practical value, it seemed prudent to continue the examination within a population of therapy couples. The purpose of this was to assess whether alexithymia may be a significant contributing factor that could distinguish between couples who are not having therapy and those who have reached a point of seeking professional help for their relationship distress. This investigation took place in Study 2, which is presented in the next chapter.

CHAPTER FIVE

Study 2: Clinical Couples

In providing a clinical perspective, Study 2 extended the investigation of alexithymia and couples' relationships by examining a sample of couples who had recently entered relationship therapy. Preliminary analyses were firstly computed to obtain descriptive, prevalence, intrapersonal, and interpersonal information. Following this, comparative analyses were performed between the therapy couples and the community couples who participated in Study 1. The comparative analyses tested whether there were differences between the clinical and community couples in terms of their alexithymia, outcome variables, and their alexithymia discrepancies. To begin this process, an overview of the study rationales and issues is presented.

Overview of the Study Rationales and Issues

There were two fundamental rationales upon which Study 2 was based. Firstly, all of the previous studies examining alexithymia within couples' relationships have utilised couples from the general community (e.g., Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Frye & Feistman, 2010; Frye-Cox & Hesse, 2013; Humphreys et al., 2009; Mirgain & Cordova, 2007; Wachs & Cordova, 2007; Yelsma & Marrow, 2003). Accordingly, there has been no associated empirical research directed toward couples who are having therapy, and/or whether they differ from couples who are not having therapy.

Secondly, there is clinical merit in having such evidence. We know that findings from the general relationship literature indicate that couples entering therapy are significantly more distressed than are general community couples (Snyder, 1997), and that this distress spans a broad range of variables that are associated with the quality of couples' relationships (Snyder, 1997).

Furthermore, there is evidence of treatment difficulties within the area of couple therapy. These difficulties include poor rates of successful long-term outcomes (Bambling, 2007; Gottman, 1999), couples failing to maintain their initial positive treatment gains (Atkinson, 2005; Bambling, 2007; Doss et al., 2004; Gottman, 1998; Gottman, 1999; Gottman & Silver, 1999; Gurman, 2011; Schwartz Gottman, 2004), and

couple partners not experiencing “equal movement from the distressed to the non-distressed range of functioning in their relationship as a result of therapy” (Bambling, 2007, p. 51).

With regard to the alexithymia treatment area, there is long-term and consistent anecdotal and empirical evidence indicating that successful outcomes are difficult to obtain with individuals who are highly alexithymic (Krystal, 1979, 1982/83, 1988; Mallinckrodt et al., 1998; Ogrodniczuk, 2007; Ogrodniczuk et al., 2005, 2008, 2011; Sifneos, 1973; Swiller, 1988; Taylor, 1984a, b, 1997a, b, Taylor & Bagby, 2013; Vanheule, Verhaeghe et al., 2011). Specific to treatment with couples, Swiller (1988) detailed the therapeutic difficulties and additional complexity that exist with couple partners who have a discrepancy between their alexithymia levels.

When the findings from the couple therapy literature and the alexithymia literature were taken into account, a question arose of whether there may be a link between the two areas. In considering this question, it was found that relationship research has uncovered two key processes that occur within couples that are highly predictive of the success or failure of relationships. One process involves discrepancies in couple partners’ expression and experience of emotion creating relationship problems and predicting divorce with 80% accuracy (Gottman, 1999; Gottman et al., 1996). The second process relates to the interpersonal behaviours of empathy, the degree of turning toward, turning away, and turning against, and the ratio of positive to negative behaviours during conflict (Gottman, 1999; Gottman & DeClaire, 2001, 2006; Gottman & Silver, 1999; Schwartz Gottman, 2004).

Given the importance of couple partners’ emotional-related differences, and the crucial interpersonal behaviours that predict the success or failure of relationships, the conceptual linkage to the variables in the current research is apparent. In the current research, the alexithymia variables are relevant to the aspect of emotional differences between spouses, and the empathy provided and empathy received variables are important in improving couples’ understanding of each other. The emotional connection variables of turn toward, turn away, and turn against are specific to reducing negative interaction patterns, which in turn, will influence the ratio of positive to negative interactions, and the overall sense of emotional connection within the relationship (i.e., the positive emotional connection variable in this research).

It is clear that deficits in these processes influence the quality of couples' relationships. Gaining information on how therapy couples' alexithymia, empathy, emotional connection, and relationship dissatisfaction are associated, and whether therapy and community couples differ, may provide useful clinical guidance to therapists who treat couples, and subsequently play an important part in assisting couple partners to maintain their initial therapy benefits and/or gain equal benefits from their treatment.

Within this study, the initial design was centred on replicating the analyses performed with the community couples, and comparing the clinical and community couples on the variables; however, a full replication was precluded by a low sample size of therapy couples that was able to be obtained. The focus of interest was therefore redirected toward data exploration, and the comparison component assessing whether the groups differed significantly in alexithymia, the outcome variables, and their alexithymia discrepancies. In conducting Study 2, the aim was to recruit a representative sample of clinical couples whilst maintaining as much standardisation as possible between the processes involved with recruiting the community couples.

Study Design

To gain a representative sample of couples who were having therapy, the study firstly required the assistance of clinicians in terms of referring appropriate couple clients to the research; hence, although the couples were the focus of the study, their therapists also formed a separate participant sample. The clinicians were organisation-based and privately practising therapists whose clinical work included couple therapy; the couples were their clients who had recently entered relationship therapy.

The therapist sample was accessed through a snowball technique whereby each clinician approached was asked to provide referral names of suitable organisations and/or colleagues to contact regarding participation. Once the referred service had agreed to take part in the recruitment, their undertaking was firstly, to screen their new married and de facto couple clients on safety criteria that required the absence of excessively high distress and/or domestic violence or fear within the relationship. Suitable couples were then given a brief verbal introduction to the study, after which interested couples were provided with a research information flyer that contained my contact details; this process was to occur within the first five couple therapy sessions. Once couples contacted me, I assessed whether they were eligible for the study, and conducted a similar recruitment process to

that utilised with the community sample. Following verbal consent from each couple partner to participate in the study, a Research Package was mailed to each couple. Upon the return of the couples' completed documents, the data were processed and entered in the same manner as the community couple data. Preliminary analyses were performed on the clinical couple data, and comparative analyses were conducted between the clinical and community couples.

Research Questions

The preliminary analyses were exploratory in terms of gathering information about the characteristics of the sample, and investigating associations between the variables. In comparing the two couple groups, the following research questions were investigated:

- RQ1.** Do clinical and community couples differ significantly on total Alexithymia (TAS-20), Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and Externally Oriented Thinking (EOT), and are there gender differences (e.g., Gottman, 1999; Gottman et al., 1996)?
- RQ2.** Do clinical and community couples differ significantly on the outcome variables of Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction, and are there gender differences (e.g., Gottman & DeClaire, 2006; Gottman & Silver, 1999; Snyder, 1997)?
- RQ3.** Do Clinical and Community couples differ significantly on the size of partners' discrepancies in TAS-20, Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and Externally Oriented Thinking (EOT) scores, and are there gender differences (e.g., Bambling, 2007)?

In the following sections, the methodology is described, and the results from the analyses are presented.

METHODOLOGY

Prior to any data collection, attention was given to the size of the clinical sample of married / de facto couples, and the inclusion criteria required for participation.

Sample Size

As noted, the original intention was to gain a sample of couples in therapy of similar size to that of the community sample. However, despite protracted and diligent attempts to recruit a substantial sample of clinical couples, the final participant group totalled 34 viable individual data sets, which resulted in 17 couples for inclusion in the study.

The low participant numbers presented a serious limitation in the statistical power of subsequent analyses. Essentially, this meant that the size of the relationships between the variables needed to be large to reach significance. Also, when analysing the differences between the clinical and community groups, adjusted alpha levels were required to account for the number of tests being performed. The analyses were guided by Kenny et al. (2006), who recommended that with fewer than 28 dyads, an automatic assumption of data nonindependence be applied, and the data analysed according to dyadic data analysis with related samples.

Inclusion Criteria for the Study

Because the design involved therapists' assistance in identifying suitable couples for the study, and many therapists do not work clinically with couples, the inclusion criteria for this sample required that the treatment of couples was part of their clinical repertoire, and that they were likely to see new couple clients throughout the recruitment period.

The inclusion criteria for the couples were similar to that of the community couple sample. That is, they were heterosexual partners who were both aged 18 years and older, and who each independently agreed to participate. As couples, they were required to be currently cohabiting within either a marital or de facto relationship in which they had been living together continuously for a minimum of one year. Individuals were required to not be currently having individual, family, or group therapy. In contrast to the community sample, couples were required to be in relationship therapy whereby they had attended no more than five sessions. To assist with completion of the questionnaires, all participants were required to be competent in English literacy. Couples were excluded from the study if they did not meet these criteria, or if either partner returned incomplete questionnaires.

Participants

Therapists: Participant Characteristics

Participants in the therapist sample comprised practitioners from three not-for-profit government assisted agencies, a university clinic, an employee assistance provider (EAP) service, and 41 private practitioners. The exact number of actively participating therapists involved in the study could not be estimated because of the multiple sites and/or large employment numbers involved in the organisations.

Clinical Couples: Participant Characteristics

The clinical couple sample comprised 17 heterosexual married or de facto couples residing in the metropolitan area in Perth Western Australia. The couples had recently entered relationship therapy with an organisation-based or privately practising therapist, and had attended no more than five treatment sessions. As with the community couples, data on the husbands', and wives', characteristics were gained through the Sociodemographic section of the MSI-R (Snyder, 1997).

Age

The mean age for the total sample was 43.82 years ($SD = 10.05$). For husbands, the mean was 45.18 years ($SD = 10.77$); age range 29 years to 69 years. For wives, the mean was 42.47 years ($SD = 9.39$); age range 28 years to 58 years. A paired-samples t -test indicated that there was no significant difference in age between husbands and wives, $t(16) = 1.78, p = .093$. There were no missing data.

Ethnicity

As per the MSI-R, ethnicity was categorised and analysed as Asian, Black, Hispanic, Native American, White, and Other. As is shown in Table 59, the majority of participants were White, followed by Other, and Asian. There were no missing data.

Table 59
Percentages Relating to Ethnicity for Clinical Husbands and Wives

Ethnicity	Husbands		Wives	
	<i>n</i>	Percent	<i>n</i>	Percent
Asian	1	5.9	-	-
Black	-	-	-	-
Hispanic	-	-	-	-
Native American	-	-	-	-
White	14	82.4	16	94.1
Other	2	11.8	1	5.9

Note. *n* = 17 husbands and 17 wives. Dashes indicate that there were no reports from husbands or wives for Black, Hispanic, or Native American ethnicity, and no reports of Asian ethnicity for wives.

Education Level

Education level was categorised as Primary (educated to year seven), Secondary (educated to year 12), and Tertiary level (educated beyond year 12). Table 60 shows that the majority of the sample had attained Tertiary and Secondary level education. There were no reports for Primary level education. Data were missing for three husbands and four wives.

Table 60
Percentages of Education Levels for Clinical Husbands and Wives

Education Level	Husbands		Wives	
	<i>n</i>	Percent	<i>n</i>	Percent
Primary Level	-	-	-	-
Secondary Level	5	35.7	5	38.5
Tertiary Level	9	64.3	8	61.5

Note. *n* = 14 husbands and 13 wives. Dashes indicate that there were no reports from husbands or wives for Primary level of education.

Employment Status

To elicit employment status, participants responded to a yes/no question of “are you currently employed outside your home?” However, the findings need to be viewed with

caution because this question does not take into account employment that is conducted from within a person's home. Respondents who noted that they carried out their employment from home were included in the employed group. Results indicated that 15 (93.8%) husbands and 13 (81.3%) wives were employed, and 1 (6.3%) husband and 3 (18.8%) wives were unemployed. Data were missing for one husband and four wives.

Occupation

Occupation was reported and analysed via the seven categories listed on the MSI-R. As shown in Table 61, the majority of husbands were in the Business Manager/Lower Professional category, and the majority of wives were in the Clerical/Sales/Technical category. Data were missing for two husbands and one wife.

Table 61

Percentages for Occupations for Clinical Husbands and Wives

Occupation	Husbands		Wives	
	<i>n</i>	Percent	<i>n</i>	Percent
Executive/Advanced Professional	5	33.3	2	12.5
Business Manager/Lower Professional	6	40.0	4	25.0
Administrator/Small Bus. Owner	1	6.7	3	18.8
Clerical/Sales/Technical	1	6.7	5	31.3
Skilled Manual	1	6.7	1	6.3
Semi-skilled/Machine Operator	1	6.7	-	-
Unskilled	-	-	1	6.3

Note. $n = 15$ husbands and 16 wives. Dashes indicate that there were no reports from husbands for the unskilled category and no reports for wives in the semi-skilled/machine operator category.

Work Hours

Of participants who reported work hours, the mean number of hours per week worked by husbands was 47.81 ($SD = 12.45$) and by wives 29.00 ($SD = 12.17$). Husbands reported significantly more work hours than wives, $t(11) = 4.022$, $p = .002$. Data were missing for one husband and four wives.

Relationship Status

The sample comprised 88.2% of couples who were legally married and 11.8% who were living in a de facto relationship. There were no missing data.

Duration of Marriage or De facto Relationship

With the responses to this variable, there was an occasional occurrence of spouses reporting slightly different durations (for example, one partner would report 18 months and the other partner would report two years). Because the differences were minimal, data were entered as per participants' responses. Overall, the mean relationship duration in years was 14.04 ($SD = 10.90$), with a range of two years to 34 years. Data were missing for one husband.

Number of Previous Marriages / De facto Relationships

The findings on this variable also need to be viewed with caution because of some ambiguity in the questionnaire item, which was phrased as "number of previous marriages". It is uncertain whether participants' reports reflected previous marriages alone or if de facto relationships were included. As is shown in Table 62, participant responses indicated that the greater percentage of husbands had been in one and two previous cohabiting relationships, and that the highest percentage of wives had been in one previous cohabiting relationship. Data were missing for seven husbands and four wives.

Table 62

Numbers and Percentages of Previous Marriages for Clinical Husbands and Wives

Number of Previous Marriages	Husbands		Wives	
	<i>n</i>	Percent	<i>n</i>	Percent
0	1	10.0	1	7.7
1	4	40.0	8	61.5
2	4	40.0	2	15.4
3	1	10.0	1	7.7
4	-	-	1	7.7

Note. $n = 10$ husbands and 13 wives. Dashes indicate that there were no reports from husbands for four previous marriages.

Number of Treatment Sessions

One of the requirements of the study was that couples had not attended more than five therapy sessions as this allowed the data to be gathered at an early phase in their treatment. During the recruitment screening that I conducted, partners were asked how many sessions they had attended. Frequencies confirmed that this requirement had been met by all of the couples; 23.5% of couples had attended one session, 29.4% two sessions, 23.5% three sessions, 11.8% four sessions, and 11.8% five sessions.

Previous Couple Therapy

The couples were asked if they had undergone previous couple therapy for their current relationship (excluding the therapy they were now attending). If couples had attended previous therapy, they were asked how many times this had occurred. Findings indicated that 70.6% of couples had not attended previous relationship therapy, 5.9% had been in therapy one previous time, 17.6% had been in therapy on two previous occasions, and 5.9% had attended therapy on three previous occasions.

Additional MSI-R Sociodemographic Data

As with the Community couples, the questions pertaining to “number of children”, “age of youngest child”, and “age of oldest child” presented a difficulty due to uncertainty about whether partners had included children from previous relationships. To maintain standardisation between the Community and Clinical couples’ data, these items were not included in the study.

Summary

Characteristics of the Samples:

The therapist sample included practitioners from three not-for-profit government assisted agencies, a university clinic, an employee assistance provider (EAP) service, and 41 private practitioners.

The clinical couple sample primarily comprised couples who averaged mid 40s in age, were of white ethnicity, had been educated to secondary and tertiary level, and were currently employed in lower level professional occupations (husbands) and clerical/sales occupations (wives), working an average of 48 hours (husbands) and 29 hours (wives) per week. The majority of the couples were legally married, and the average length of marital / de facto relationships was approximately 14 years. The majority of husbands had been in one and two previous cohabiting relationships, and the majority of wives had been in one previous cohabiting relationship.

At the time of completing the questionnaires, none of the couples had attended more than five therapy sessions. For the majority of couples, their current therapy was the first time they had sought professional treatment for their relationship issues.

Materials

Two sets of materials were utilised in the study. Therapists who agreed to recruit their couple clients for the study were provided with a Therapist Recruitment Package, and the couples who agreed to take part in the study received a Couples' Research Package.

Materials for Therapists

The Therapist Recruitment Package contained an information letter, a script to assist them when introducing the study to couples, flyers to give to the couples, and an example of the feedback that would be offered to their couple clients (see Appendix E for the Therapist Recruitment Package).

Materials for Couples

The materials utilised with the clinical couples were almost identical to those used in the study with the community couples. As a reminder, the materials are listed below, and they are in the order in which they were presented in the couples' questionnaire sets. In addition, the measures' reliability statistics for the clinical sample are included.

Toronto Alexithymia Scale (TAS-20)

Alexithymia was assessed with the TAS-20 scale, which provides a total alexithymia score, and scores for the factor scales of Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and Externally Oriented Thinking (EOT). The current study confirmed internal consistency for the TAS-20 total scale, with Cronbach's alpha coefficients of .90 for husbands and .81 for wives. The coefficients for DIF were .91 for husbands and .76 for wives, for DDF were .87 for husbands and .75 for wives, and for EOT were .63 for husbands and .60 for wives.

Barrett-Lennard Relationship Inventory (BLRI)

Although Empathy Provided and Empathy Received were the scales utilised in the study, the BLRI scale also includes the scales of Positive Regard (MO and OS), and Congruence (MO and OS), which were not analysed. Cronbach's alpha coefficients on Empathy Provided were .82 for husbands and .71 for wives, and on Empathy Received were .91 for husbands and .83 for wives.

General Relationship Questionnaire (GRQ)

The GRQ scale includes subscales measuring the emotional connection components of Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection. Cronbach's alpha coefficients for husbands' Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection were .68, .74, .96, and .87 respectively. The coefficients for wives' Turn Toward, Turn Away, and Positive Emotional Connection were .78, .84, and .92 respectively; however, Turn Against was .31, indicating low internal reliability.

Marital Satisfaction Inventory, Revised (MSI-R)

Marital/relationship dissatisfaction was measured by the Global Distress Scale (GDS) within the MSI-R scale. As with the community couples, testing of the MSI-R scales' internal consistency for the current study was conducted by including only the clinical scales of GDS, AFC, PSC, AGG, TTO, FIN, SEX, ROR, and FAM, and by computing a Cronbach's alpha coefficient across the totals for the nine scales; this was computed separately for males and females. This abridged testing was necessary because only the scale totals (rather than the individual items) were available for computation and because the DSC and CCR scales were not included in the data set due to an observed unreliable response pattern. Therefore, findings showed Cronbach's alpha coefficients to be .64 for husbands, and .81 for wives.

Demographic Data

Participants' demographic data were gained through the cover page that is attached to the MSI-R instrument. The MSI-R cover page allows for anonymous demographic information concerning individuals' gender, years of completed education, current employment, hours worked, present occupation, ethnicity, duration of current marriage or relationship, number of previous marriages or significant relationships, number of children, age of oldest or only child, and age of youngest child. All questions are optional except for gender which has an indication of being 'required'.

Exceptions to the Clinical Couples' Materials

There were two exceptions to the materials sent to the clinical couples: Clinical couples received an alternative covering letter to the community couples (see Appendix G), and because they were already seeing a therapist, the list of available psychological services was omitted.

Procedure

Sampling Method

As noted, to obtain the sample of couples having relationship therapy, the sampling method involved two participant groups, and three separate recruitment stages. The two participant groups were: (1) therapists from private practices and organisations, and (2) couple clients who were having relationship therapy. The three recruitment stages involved: (1) contacting therapeutic services, (2) therapists screening their couple clients on safety criteria and informing them about the study, and (3) couples contacting me, and undergoing eligibility screening and final recruitment. All therapeutic services and couples were located within the metropolitan area of Perth, Western Australia.

Because of the therapeutic nature of the couple sample, and the sensitive information couples would be asked to provide, stringent attention was given to matters concerning research ethics, participant rights and safety, as well as the need to provide potential benefits for participation (Bay-Cheng, 2009; Jenson, 2006). In achieving this, a fine balance was required in the navigation between the safety of participants, therapist and organisation duty of care obligations, organisational structure and policy, and obtaining a sample for the study.

Firstly, a sample was recruited of practitioners who work therapeutically with couples. This sample, gained through the snowball technique, included asking each therapist who was approached to take part in the project to also provide referral names of other couple therapists and/or services that may be interested in participation. This process was continued until the referrals reached saturation point; that is, until therapists were no longer providing new contact names.

Secondly, the couple sample required couples who had recently entered therapy for their relationships. To gain this sample, the therapists identified couple clients whom they assessed as suitable to take part in the study. Once deemed suitable, therapists introduced the study to the couples, and provided those interested with an information flyer that contained my contact details.

Thirdly, couples who contacted me were screened for participation eligibility, and if considered applicable, underwent a recruitment process. Couples who were eligible for the study and consented to take part were then mailed a Couples' Research Package.

In the interest of assisting future research replication, the finer details of the multi-step recruitment process involved in gaining the samples are presented below.

Stage One: Recruitment of the Therapists

In the first stage, recruiting the therapists involved locating and contacting therapeutic service organisations and privately practising therapists who had been referred by another clinician. The initial list of clinicians' names was provided by a research supervisor, who was also a clinical psychologist. Gaining potential therapist participants in this way provided a personal introduction, which was considered helpful in improving the likelihood that this participant group would be receptive to the initial contact.

Organisation managers and privately practising therapists were initially contacted by telephone. I introduced myself, the name of the referring colleague, and provided a brief explanation of the reason for the contact. Based on a receptive response, options were given of discussing the study at that time, arranging a future telephone discussion, or making an appointment for a face-to-face meeting. Most of the organisation managers and therapists preferred to meet in person, which required visits to their places of business.

The meetings with all of the organisation managers were held during business hours. This generally involved an initial meeting with the director and/or manager during which the research was presented. If there was interest in the study, a second meeting was held that included the manager and therapeutic staff. This was helpful to the recruiting process because it allowed me to present the research to the group, and to answer any questions that they had about the study.

With the private practitioners, the meetings took place at times that were convenient for each individual therapist, which resulted in many being held at the end of the business day and into the evening. This meant that often, I was travelling alone at night to unfamiliar locations, and meeting with essentially unknown male and female therapists in premises that had been vacated by day staff or others who worked in the building. As a personal precaution, a safety protocol was established with my husband, who also served as my data entry assistant and was therefore bound by confidentiality requirements. For each appointment, he was advised of the therapist's name, address, telephone number, and the expected beginning and ending times of each meeting. After each meeting ended, and I had left the building, a telephone call was made to confirm my safety status.

During the recruitment discussions, information was provided about the study and its general aims, the participation requirements, and benefits for both the couples and the therapists. The benefits for couples included the option for each spouse to receive a feedback summary of their own responses, which could be utilised therapeutically within the treatment sessions. Whilst this also provided a benefit for therapists, the therapists were also offered an option of having their details included in the lists of services that would be distributed to community couples who were sent feedback summaries; essentially, this equated to free advertising of their service.

At the time of the meetings, consenting therapists were given a Recruitment Package, which contained an information letter, a script to assist them when introducing the study to couples, flyers to give to the couples, and an example of the feedback that would be offered to their couple clients. Therapists were also informed about the recruitment process that their referred couples would undergo. To ensure that they were comfortable with the materials that would be sent to their clients, therapists were shown the full Couples' Research Package that participating couples would receive.

When discussing the recruitment process during the meetings, particular attention was given to the ethical considerations for the couples participating in the study. Emphasis was placed on the voluntary nature of taking part, confidentiality of their clients' details and responses, anonymity when reporting the findings, and the freedom to withdraw from the study at any point (see Bay-Cheng, 2009; Streiner & Norman, 1995).

With due consideration to therapists giving informed consent to participate, the content of the study was phrased in terms of "gaining information about couples' emotion styles, partners' views about the ways they respond to each other, and their relationship satisfaction." The only information that was not revealed was that the aspect of 'emotion styles' specifically related to the alexithymia construct. The omission of the alexithymia focus occurred because I did not want the therapists to have information about the term or its meaning, and this was for two reasons: (1) I sought to ensure that therapists did not unknowingly bias the couples who participated in the study, and (2) within the current research, the third study involved possible future interviews with the therapists regarding their knowledge of alexithymia. It was important that therapists who agreed to take part in the third study remained uncontaminated regarding the alexithymia term and the meaning of the construct.

Therefore, whilst no extreme or harmful deception about the study took place, the exact focus of the research was somewhat disguised. As recommended regarding any level of deception involved in research (Streiner & Norman, 1995), participants were advised of the true nature of the study at an appropriate later time.

Outlined below are the characteristics of the services that were approached about participation and consented to be involved in the study.

Characteristics of the Therapeutic Services

Based on the referrals gained through the snowball method, a diverse sample of practitioners was approached, which spanned a variety of therapeutic services across a wide range of metropolitan areas. These services included contacts with four (not-for-profit) government assisted agencies, one university clinic, an employee assistance service provider (EAP organisation), and 45 private practitioners. To add to the sampling diversity, within these services, the therapists held a range of different professional qualifications; the practitioner base included counsellors, social workers, generalist psychologists, specialist psychologists, and a psychiatrist.

Of the services contacted, one agency declined involvement in the study, with the manager stating, “our counsellors are already too busy, and this would be a burden to them”. Four private practitioners declined participation, with one being unavailable during the recruitment period and three stating that they were “too busy”.

Agreement to assist with the couple recruitment was therefore gained from three of the government-assisted agencies, the university clinic, the EAP organisation, and 41 private practitioners. An exact total of participating practitioners could not be estimated because of unknown numbers of therapists within the organisations that agreed to take part.

Stage Two: Therapists’ Initial Recruitment of the Couples

Therapists conducted the second stage of the recruitment within the first five sessions held with their couple clients attending for relationship therapy. This time frame was juxtaposed with the research need to gain data from couples that closely reflected their states of being prior to any therapy effects. The decision on the timing was based on the need to allow a therapeutic rapport to be developed between the clinician and the couples prior to couples being asked to be involved in the study. It also allowed time for

information to emerge that would enable therapists to screen the couples on the safety criteria.

The practitioners informally screened couples on safety criteria that included an absence of extreme distress and/or the presence of domestic violence/fear, which was to assess whether couples were suitable to approach about participating in the study. If deemed suitable, therapists provided couples with a brief introduction about the nature of the study, the participation requirements, and the benefits of taking part. If couples expressed an interest in participating in the study, therapists gave them an information flyer that included my contact details.

To avoid adding burden to already distressed couples, therapists were asked to emphasise the voluntary nature of participating, the freedom to discontinue answering the questions and withdraw from the study at any point, and to assure couples that taking part was not a requirement of their therapy. Furthermore, therapists were asked to refrain from trying to convince disinterested couples to be involved in the study. They were also asked to *not* follow up about participation with couples who had expressed an interest in the study and/or had taken a flyer. This was to avoid any sense of coercion with the couples, and to reinforce the voluntary nature of participation and the fact that the study was separate from their therapy.

Stage Three: Recruitment of the Couples

The third recruitment phase took place when the couples contacted me about participating in the study. I conducted the final eligibility screening and the recruitment, which followed a process similar to that with the community couples (see Appendix F).

When speaking to the spouses who made the initial contacts, I firstly thanked them for calling, confirmed that the couple had received the information flyer from their therapist, and noted the referral service. It was explained that I would need to talk to both partners in the couple, and that both would need to agree to participate in the study. If this was acceptable, I spoke to both partners and provided each with an explanation about the purpose of the study, the participation requirements, and the benefits of taking part. If individuals expressed an interest in participating in the study, their eligibility was assessed based on the responses to the inclusion criteria. If either partner was ineligible for the study due to failing to meet the inclusion criteria, they were provided with an appropriate explanation and thanked for their time.

If deemed eligible, partners were informed of the voluntary and confidential nature of the study, and the freedom to withdraw at any time. They were specifically advised to discontinue answering the questions if this was resulting in undue distress. It was reiterated that participation was in no way a requirement of their relationship therapy and that their responses would not be communicated by me to their therapist. Partners were then advised that they would receive a research package, and they were given details about the procedure involved in receiving and returning their documents. Partners were given the opportunity to ask questions about the study and the procedure, after which they were asked specifically if they would like to take part in the study. If one or both of the partners declined the offer, the process stopped at that point and the partners were thanked for their time.

Following verbal consent from both partners, contact details were noted, and couples were mailed the Couples' Research Package. As with the community couples, the research package contained two sets of documentation; each set comprised a research information letter, consent form, five questionnaires, a privacy envelope, and a free pen to use to complete the questionnaires. The package also contained a large postage paid envelope in which spouses were to place their sealed privacy envelopes. Couples were asked to return their completed packages within two weeks, and advised that if a feedback summary was requested, this would be received within a further two weeks. The details of the couple sample are presented below.

Details of the Couple Sample

Recruitment by the therapists resulted in 25 couples who made contact regarding participation in the study. Of those 25 couples, eight couples were ineligible for participation. Ineligibility occurred in three couples due to one partner currently having individual therapy as well as couple therapy. In each of two couples, one male partner and one female partner initially agreed to take part in the study and then withdrew by returning incomplete research packages; within the returned packages, both of these partners included a note stating that they were "too busy" to complete the questionnaires. Lastly, in three couples, the partners were having family therapy rather than couple therapy. This resulted in a final sample of 17 couples who returned fully completed data sets. Because I had no knowledge of the number of couples who were approached by therapists, a definitive response rate could not be calculated.

However, the information was available regarding the sources of their referrals. For the initial 25 couples, six referrals were from therapists within two of the not-for-profit organisations, and 19 from private practitioners. For the final 17 couples, five referrals were from therapists within the two not-for-profit organisations, and 12 from private practitioners.

Once the couples' completed questionnaire sets were returned, the data processing procedure was identical to that of the community couples, with the individuals' privacy being maintained through separating the consent forms (that contained their names and contact details) from the questionnaires, and using identification codes to identify couple partners. After the data were entered, the feedback summaries of partners' *own* responses were completed and mailed to each person who had requested a summary. This occurred within two weeks of receiving the completed documents to enable the information to be utilised at the earliest possible time within their therapy.

With respect to couples who expressed an interest in receiving personal feedback, 100% of husbands and 100% of wives requested a summary of their responses. In addition, partners were asked whether they would like to be contacted in the future should further research be conducted. The responses to this question showed that couple partners were in complete agreement, with 76.5% of husbands and wives indicating a 'yes' response and 23.5% of husbands and wives indicating a 'no' response. In terms of receiving a summary of the study findings, 94.1% of husbands and 100% of wives requested a summary. These figures suggested that all of the partners who participated in the study had a desire to know the meanings of their responses to the questionnaires, the majority of husbands and wives were open to being involved in a future study, and that most of the partners had an interest in knowing the overall findings of the current study.

However, given the range of therapeutic services that had agreed to help to recruit the couples, consideration is warranted of the small sample of couples that was ultimately obtained. This is detailed in the section below, and is provided for the benefit of other researchers (particularly novices) who may conduct a similar study in the future. Future research designs may be assisted by having information about some of the issues that may be encountered when the recruitment of clinical couples is dependent upon intermediary sources.

Issues Involved in Recruiting Therapy Couples

There is little doubt that studying couples who are having therapy affords a unique view of the topic of interest, and that the information gleaned can assist with the development of evidence-based treatments that positively influence therapeutic outcomes. The method of recruiting couples who are in relationship therapy requires careful planning, and there seems to be a scarcity of literature specifically addressing recruitment of this participant population. However, associated research has indicated that when recruitment relies on intermediary parties to identify and refer potential participants, substantial complexity can be added to the process (Evans, 2013; Patterson, Kramo, Soteriou, & Crawford, 2010).

The complexities involved when recruiting clinical samples who are already engaged in therapeutic services can be particularly challenging for researchers. This is because as a group, the required participants are considered a vulnerable population, and the topics under investigation are often of a sensitive nature (Jenson, 2006). Consequently, first and foremost, there is a need to maintain the ethical imperatives of minimising the risks and maximising the benefits to participants (Bay-Cheng, 2009, p. 243). In addition, having direct access to clinical populations is often not possible, which means that researchers are dependent on a third person to promote the research and refer participants to the study (Evans, 2013; Patterson et al., 2010).

In clinical settings, the intermediary person who is ultimately pivotal to the recruitment process is the client's therapist. When seeking recruitment support within a private practice service, there is generally direct liaison with the therapist, which can greatly aid the process. Conversely, when the setting is within therapeutic service organisations, access to therapists is reliant on hierarchical management structures that may involve a number of key people. These can include executive directors, site managers, line managers, and finally, the clinicians. Gaining recruitment support from all of the stakeholders can be challenging, and it can be hindered at any point in the chain of command (Patterson et al., 2010).

However, within all therapeutic settings, a range of factors can influence the likelihood that recruitment assistance will be obtained. These factors include personal and professional characteristics related to the gatekeepers, management staff, and therapists, which may involve their knowledge about research methods, general attitude toward research and/or the particular study that is involved, a belief that discussing research with

clients will disrupt the therapeutic alliance and process, therapists' perceptions of their clients' capacity and willingness to be involved in research, concerns about participation creating psychological harm for clients and then increasing therapists' workloads by having to address any adverse effects, the way in which the research is presented to eligible clients, service financial instability, and/or the service ethos regarding referring clients to research (Patterson et al., 2010). These influencing factors are important to consider as they can result in the "exclusion of very many potentially eligible participants" (Patterson et al., 2010, p. 532) who may in fact be willing to take part in research that is directly relevant to their issues of concern.

Although these elements may produce numerous challenges to the recruitment process, there are also aspects within the process that can be rewarding and empirically interesting for the researcher. To provide a balance to the complexities, the next section contains an overview of what may be experienced personally by researchers when recruiting therapeutic services to assist in obtaining a clinical couple sample.

The Experience of Recruiting Therapeutic Services

During the initial contacts, and the meetings with private practitioners, organisation gatekeepers, and organisation therapists, a resounding majority demonstrated a welcoming attitude, enthusiasm for the study, and encouragement regarding the research topic and its therapeutic value. The meetings with privately practising therapists, in particular, were often lengthy because, after the study details had been discussed, there was generous sharing of their therapeutic experiences and clinical wisdom. My overall impression was that therapists have a strong interest in the topic of emotion and the interplay between clients' emotional capabilities, their conditions, and their treatment outcomes. This emerged despite therapists having no knowledge that alexithymia was the focus of the emotional component of the study.

Numerous therapists indicated that they were pleased that the study was being done, and that they would be "very happy" to tell their couple clients about the opportunity to take part. Although some therapists expressed concern that completing the questionnaires may be somewhat taxing for their couple clients, they appreciated the safeguards in place and trusted that any associated distress could be addressed within the therapy sessions. The clinicians also appreciated the aspect of couples gaining a free assessment and feedback

summary, which could be utilised within the therapy to identify areas that would benefit from clinical attention. Only two private practitioners were not willing to ask their couple clients to be involved in research. As one practitioner said “they already have enough going on, and they don’t need to be asked to do anything extra”. Overall, there was a great amount of personal contact that occurred with the therapists, and very few difficulties arose. This led to optimism about gaining a substantial sample for the study.

However, throughout the recruitment experience, challenges did emerge, and these were reflective of some of the complexities detailed in the previous section. This confirmed the kinds of difficulties that can arise when attempting to recruit the help of large multi-site organisations, and relying on intermediary sources of referral.

Although generally, the experience in this phase was positive, the result was that, across all of the services that had willingly agreed to assist in the study, comparatively few couples made contact to participate. Throughout the recruitment period, I provided therapists with gentle reminders about the study through enquiring about their progress with the couples; this contact was often by telephone and sometimes by email. Also throughout the study period, other therapists, who were particularly interested in the research, made independent contact with me to ask how the study was going. During all of the communications, honest feedback on their progress was sought and received.

The feedback received indicated that a number of issues were influencing the recruitment progress. Some therapists simply had not seen any new couple clients, and some had forgotten about the study. A few had found that when the opportunity did arise to recruit couples, they felt uncomfortable asking their clients to take part in research. Other therapists had identified domestic violence and fear within couples, or had assessed spouses as being too distressed to approach about participating. One therapist, who was actively recruiting couples, found that the clients were unwilling to take part because they felt it was too much of a burden when added to everything else they were undergoing. This supported the view of the previously mentioned therapist, who was unwilling to involve clients in research for this very reason.

On a more encouraging note, feedback from therapists whose couples had taken part in the study indicated that their participation had been beneficial for both the couple and the therapist, particularly when the partners’ feedback summaries were utilised as a resource in clarifying and working through their relationship issues.

Given the enthusiastic attitudes of most of the privately practising and organisational therapist sample, and the efforts made to adhere to ethical and safety matters, I remain unsure of what other actions could have been taken to improve the response rates in the study. There is also uncertainty about whether the recruitment method that was implemented was ideal.

The procedure of utilising intermediary recruitment sources did seem to reflect some of the findings of Patterson et al. (2010) regarding possible factors influencing client recruitment referrals by mental health clinicians. These authors found evidence of “a fundamental disjunction between research and clinical practice that manifested in varying ‘filtering’ processes” (p. 532), which they proposed will ultimately affect the development of evidence based mental health care.

The filtering processes involved with the therapists are of particular concern because, within research recruitment procedures, it produces an additional source of sampling bias. In other words, it can result in a therapist-selection bias as well as the naturally occurring participant self-selection bias (Patterson et al., 2010).

When considering these sampling issues in terms of the couples who did take part in the study, the question was raised about why these particular spouses felt able to take part in both the research and their relationship therapy. I wondered if it was because their issues were relatively minor and their distress moderate, or if it was perhaps due to their situations being so dire that they were willing to try anything that may have been of help. This question was not able to be answered, and it was therefore of great interest to see whether this subset of therapy couples would show evidence of being similar or different to the community couples who were not having therapy. Exploration of the data and examination of this comparative aspect take place in the next section in which the data analysis and results are presented.

Summary

Study 2 involved couples who were having therapy for their relationship issues, which added considerable complexity to the process of obtaining a substantial sample.

In having couples' psychological safety and well-being as the primary considerations, the sampling method included three separate procedures: (1) the therapists identified suitable couples, conducted safety screening, and provided interested couples with information and contact details for entry into the study; (2) the couples were free to contact the researcher only if they were interested in taking part; (3) couples who contacted the researcher underwent further screening and eligibility assessment after which they were sent research packages.

Recruiting the couples in this way provided multiple safeguards throughout the recruitment process, which aimed to reduce the likelihood that participation would cause additional distress to the couples.

However, recruiting therapy couples in this way resulted in a reliance on the support of organisational and private therapeutic services, which also produced a range of additional challenges.

Feedback from therapists suggested that the low sample size was influenced by aspects associated with both the therapists and the couples. Conversely, with the couples who did take part in the study, therapeutic benefits were gained for both the spouses and the therapists.

Data Preparation and Analysis

In order to analyse the data, the couples' returned questionnaires required preparation for the data entry. This involved applying screening and privacy procedures, and determining the most applicable structure for the data files.

Data Preparation

As with the community couples' data sets, the clinical couples' returned questionnaires were screened for completion, and privacy-coding procedures were applied. This was in preparation for the data entry, which involved the raw data being entered into one worksheet and an automatically recoded version transmitted into a separate working data file. This procedure was utilised for all questionnaires except the MSI-R, which required hand-scoring to obtain raw scores, which were then converted to normalised *T*-scores that provided totals for each of the scales. The normalised MSI-R total scores were entered into the raw data file worksheet and automatically replicated into the working data file.

Entering the data using this procedure allowed a formal record to be kept of all original raw data (except for the MSI-R) as well as producing a working data file that held the reverse-coded scores. Accuracy of the replication procedure was maintained via regular random checking of the reverse-coding that had occurred.

As noted, Kenny et al. (2006) advised that with sample sizes of less than 28 dyads, there is an assumption that the data are nonindependent, and the data file structure and analyses are then based on this assumption. Therefore, as with the community couples, the reverse-coded working data file was transferred into an *individual* file structure and this was then transformed to provide a *dyad* data file. A dyad file structure is where couple partners' scores are adjacent to each other and produce a single unit for each dyad (see Kenny et al., 2006, pp. 14-18 for recommendations on dyad file transformation).

Following the data preparation and file transformations, the data were analysed utilising SPSS for Windows (versions 19 to 20). The analytic process began with the initial steps of assessing participants' response styles and missing data. This was followed by preliminary analyses to examine the data, and statistical comparisons between the clinical and community couples' data. The findings in the preliminary analyses were evaluated against an alpha level of $< .05$, and the findings in the comparative analyses are assessed based on

adjusted alpha levels that are specified within each analytic phase. To assist with readability, significant findings in the tables are in boldface type.

Response Style Assessment

At the outset of the data analysis, consideration was given to individuals' responding styles, and the MSI-R Inconsistency (INC) and Conventionalization (CNV) validity scales were utilised to measure these aspects. Both of these scales have score ranges of low, moderate, and high. As Snyder (1997, pp. 20-21) indicated, identically to community couples, with couples presenting for therapy, low scores on the Inconsistency scale suggest carefully considered responses that accurately reflect participants' attitudes, moderate scores "may reflect mixed sentiments within specific relationship domains", and high scores identify random, careless, and/or non-reflective responding.

Frequency analyses for the Inconsistency scale indicated that although husbands and wives had variation in their scores, for both genders, 47.1% were in the low range and 52.9% were in the moderate range. There were no scores for either gender in the high range. This indicated that whilst many of the couples responded to the questions in a carefully considered way, the majority of the couples had mixed sentiments about their relationships.

The CNV scale assesses partners' appraisals of the relationship. In couples entering therapy, low scores are expected, and they indicate a relationship appraisal that is distorted in a negative direction, suggesting a possible failure to consider positive aspects of the partner and/or the relationship. Moderate scores "reflect a level of idealistic distortion or sentimentality somewhat unusual for persons seeking assistance with their relationship, and they often indicate a reluctance to take a more objective or critical view of relationship difficulties." High scores in therapy couples "are rare and invariably reflect levels of defensiveness and resistance to discussing relationship conflict that are often seen when the respondent has entered counselling reluctantly at his or her partner's urging" (Snyder, 1997, pp. 20-21).

Frequency analyses for the Conventionalization scale indicated that for husbands, 52.9%, 35.3%, and 11.8% were in the low, moderate, and high ranges respectively. For wives, 70.6% and 29.4% were in the low and moderate ranges respectively, with no scores reported for the high range. This suggested that most of the husbands', and wives',

responses were distorted in a negative direction regarding their partners and their relationships.

Although the findings on the two scales specifically reflected partners' responding on the MSI-R measure, it is possible that they also indicated the responding styles used with all of the measures in the study.

Summary

Whilst eight husbands and eight wives showed consistent, careful, and reflective response styles, nine spouses in both genders showed responding that reflected mixed sentiments across areas in their relationships.

As is generally the case with couples entering relationship therapy, the majority of husbands and wives appraised their relationships in a negative direction, suggesting a failure to consider the positive aspects in the partner and/or the relationship. A proportion of both spouses showed a level of idealistic distortion suggestive of a failure to take an objective or critical view of their relationship difficulties. Two husbands' appraisals suggested defensiveness and resistance to discussing relationship difficulties.

Screening of Missing Data

Case processing summaries were utilised to assess the degree of missing data for all variable items (except the MSI-R measuring global Relationship Dissatisfaction). The MSI-R was excluded from this process because the missing data on this scale had already been taken into account within the hand scoring of the raw data. Thus, the variables assessed were the TAS-20 total scale (giving a total alexithymia score), the TAS-20 subscales DIF - *difficulty identifying feelings*, DDF - *difficulty describing feelings*, and EOT - *externally oriented thinking*, Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection.

One husband had one missing value for Item 37 on Empathy Provided and one wife had one missing value for Item 23 on Empathy Received. As recommended, the missing values were replaced using the method of mean substitution of the subscale item (King et al., 1998) for the applicable gender.

Following preparation of the data files, response style assessment, and screening of missing data, the next step involved the analyses. To provide a context for the analyses, an overview of the analytical strategy is provided.

Analytical Strategy Overview

Although the small sample of clinical couples precluded replication of the analyses performed with the community couples, the data did provide an opportunity to conduct preliminary analyses to gain a description of the data in terms of gender differences and prevalence rates, and an examination of the couples' variables in terms of intra-personal and inter-personal correlations. Importantly, having data from both samples also presented a unique opportunity to investigate whether the clinical and the community couples differed on their alexithymia variables, outcome variables, and their alexithymia-related discrepancies.

Phase One: Preliminary Analysis

The lack of previous research investigating alexithymia in therapy couples prohibited any kind of comparative review. However, to provide a context for the results, the preliminary analyses will include the results and tables for the clinical couples as well as those for the community couples from Study 1. This is to allow readers to compare findings from the two samples of couples, and it will negate the need to refer back to the previous study.

Descriptive Statistics, and Mean Gender Differences

As shown in Table 63, the only variable to show a significant gender difference was Empathy Received in which husbands had higher scores than did wives. No gender differences were found on the TAS-20, DIF, DDF, EOT, Empathy Provided, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, or Relationship Dissatisfaction. Of note is the extremely low means of wives on Empathy Provided and Empathy Received. Data scoring and entry were subsequently checked and found to be accurate. See Table 64 below for the Community couples' statistics.

Table 63***Clinical Couples: Descriptive Statistics, and Mean Gender Differences***

Measures	Husbands		Wives		<i>t</i> (16)	<i>p</i>	95% CI of Diff	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			LL	UL
TAS	46.76	15.43	45.65	11.49	0.21	.839	-10.28	12.52
DIF	14.29	7.40	16.76	6.14	0.98	.340	-7.80	2.86
DDF	13.24	5.80	12.24	4.64	0.50	.625	-3.25	5.25
EOT	19.24	5.24	16.65	4.27	1.39	.184	-1.36	6.54
EP	3.53	13.89	0.29	11.31	0.73	.475	-6.13	12.60
ER	6.29	16.10	-4.59	14.50	2.45	.026	1.47	20.30
TToward	7.47	1.84	7.82	1.63	0.68	.508	-1.46	0.75
TAway	3.29	2.00	3.94	2.04	1.13	.277	-1.86	0.57
TAgainst	6.18	2.55	4.82	1.84	1.81	.089	-0.23	2.94
PEC	8.18	2.07	7.29	2.17	1.77	.096	-0.17	1.94
RelDissat	57.82	9.99	60.94	8.25	1.15	.265	-8.84	2.60

Note. *N* = 17 couples. CI = confidence interval of the difference; LL = lower limit; UL = upper limit. TAS = TAS-20 total alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally-oriented thinking; EP = empathy provided; ER = empathy received; TToward = turn toward; TAway = turn away; TAgainst = turn against; PEC = positive emotional connection; RelDissat = global relationship dissatisfaction. *p* = < .05. All tests are two-tailed.

Table 64***Community Couples: Descriptive Statistics, and Mean Differences***

Measures	Husbands		Wives		<i>t</i> (169)	<i>p</i>	95% CI of Diff.	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			LL	UL
TAS	46.38	11.78	41.71	11.06	3.97	<.001	2.35	6.99
DIF	13.40	5.94	13.20	5.62	0.33	.735	0.93	1.32
DDF	12.74	4.48	10.38	3.79	5.31	<.001	1.48	3.23
EOT	20.23	4.85	18.11	4.99	4.30	<.001	1.14	3.09
EP	14.31	11.72	14.80	12.25	0.51	.609	-2.36	1.38
ER	17.00	15.26	12.75	17.35	3.19	.002	1.62	6.87
TToward	8.70	1.34	8.70	1.57	0.00	1.00	-0.28	0.28
TAway	3.30	1.73	3.03	1.54	1.76	.079	-0.03	0.57
TAgainst	3.74	2.15	3.36	1.97	1.85	.066	-0.02	0.77
PEC	9.08	1.41	8.96	1.61	0.90	.368	-0.14	0.18
RelDissat	49.35	8.85	49.11	7.50	0.42	.674	-0.88	1.36

Note. *N* = 170 couples. CI = confidence interval of the difference; LL = lower limit; UL = upper limit. TAS = TAS-20 total alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally oriented thinking; EP = empathy provided; ER = empathy received; TToward = turn toward; TAway = turn away; TAgainst = turn against; PEC = positive emotional connection; RelDissat = relationship dissatisfaction.
p < .05. All tests are two-tailed.

Alexithymia Prevalence in Couple Partners

The TAS-20 total scale assessed prevalence rates in the clinical couples. For husbands, 10 (58.8%) were in the low range (≤ 51), 3 (17.6%) were in the moderate range (52 – 60), and 4 (23.5%) were in the high alexithymia range (≥ 61). For wives, 12 (70.6%) were in the low range, 2 (11.8%) were in the moderate range, and 3 (17.6%) were in the high range.

In comparing these rates to the community couples in Study 1, for husbands, 115 (67.6%) were in the low range, 36 (21.2%) were in the moderate range, and 19 (11.2%) were in the high alexithymia range. For wives, 136 (80%) were in the low range, 25 (14.7%) were in the moderate range, and 9 (5.3%) were in the high range.

Chi-square analysis indicated that compared to the community group, the proportion of those with high alexithymia was significantly greater in the clinical group, $\chi^2(1) = 5.56, p = .018$. However, when each of the genders in the groups was compared, there were no significant differences between the husbands, $\chi^2(1) = 2.19, p = .235$, or between the wives $\chi^2(1) = 3.93, p = .082$ (Fisher's Exact Tests).

Summary

The clinical husbands', and wives', data were analysed based on the assumption of relatedness, and analysed in accordance with nonindependent dyadic data analyses.

Clinical husbands were significantly higher than were wives on Empathy Received. There were no significant differences between partners on any of the alexithymia or other outcome variables.

Prevalence rates of high alexithymia were 23.5% for husbands and 17.6% for wives.

Comparisons between clinical partners and community partners (both genders together in each group) indicated that there was a significantly greater proportion of highly alexithymic clinical spouses than there were community spouses. However, comparisons of each gender in the groups were not statistically significant.

This was despite twice the proportion of clinical husbands than community husbands having a high level of alexithymia, and more than three times the proportion of clinical wives having high alexithymia than community wives.

In the next section, examination took place of how the independent (alexithymia) variables, the outcome variables, and the independent and outcome variables were associated within each gender. This provided information on the way in which therapy partners' variables intersect to affect their own experiencing. In presenting the results, where clarity is assisted, statistically significant associations only are reported in text, with all findings available in Table 65 for the clinical couples. For comparative purposes, Table 66 shows the results for the community couples.

Husbands', and Wives', Intrapersonal Correlations between the Alexithymia Variables

Pearson correlations indicated that husbands' own TAS-20, DIF, DDF, and EOT were significantly positively correlated with each other except for the association between DIF and EOT. Wives' alexithymia variables were positively correlated with each other except for associations between DIF and EOT, and between DDF and EOT (see Table 65).

Husbands', and Wives', Intrapersonal Correlations between the Outcome Variables

As shown in Table 65, husbands' Empathy Received was significantly correlated with higher Turn Toward and Positive Emotional Connection, and lower Relationship Dissatisfaction. Their Turn Toward was correlated with higher Positive Emotional Connection and lower Turn Away and Relationship Dissatisfaction. Turn Away was related to lower Positive Emotional Connection. Positive Emotional Connection was associated with lower Relationship Dissatisfaction.

Wives' Empathy Received was significantly correlated with higher Empathy Provided and Positive Emotional Connection, and lower Relationship Dissatisfaction. Their Turn Away was related to higher Turn Against. Positive Emotional Connection was associated with lower Relationship Dissatisfaction.

Husbands', and Wives', Intrapersonal Correlations between the Alexithymia and the Outcome Variables

Husbands' TAS-20, DDF, and EOT were all associated with their own lower Empathy Provided. Wives' DIF was associated with their own lower Empathy Provided and higher Relationship Dissatisfaction. Wives' EOT was also associated with their own higher Turn Away (see Table 65).

Table 65

Clinical Couples: Summary of Husbands' and Wives' Intrapersonal Correlation Coefficients on the Independent Outcome Variables

Measures	TAS	DIF	DDF	EOT	EP	ER	TToward	TAway	TAgainst	PEC
TAS	-	.85***	.91***	.73**	-.55*	-.34	.20	.11	.18	-.12
DIF	.87 ***	-	.69**	.33	-.35	-.18	.28	-.13	.04	.18
DDF	.79 ***	.60*	-	.61**	-.54**	-.40	.04	.23	.28	-.35
EOT	.58***	.26	.16	-	-.52*	-.31	.16	.24	.16	-.22
EP	-.39	-.54*	-.10	-.17	-	.46	.07	-.31	-.34	.39
ER	-.40	-.47	-.15	-.23	.63**	-	.60*	-.28	-.15	.71**
TToward	-.35	-.07	-.46	-.33	-.05	.31	-	-.50*	-.24	.70**
TAway	.45	.15	.34	.61**	.01	-.33	-.40	-	.34	-.60*
TAgainst	.15	-.04	.18	.21	.01	-.33	-.20	.64**	-	-.38
PEC	-.25	-.27	-.03	-.24	.18	.66**	.40	-.25	-.11	-
RelDissat	.40	.52*	.28	.03	-.26	-.76***	-.28	.27	.34	-.75**

Note. $N = 17$ husbands and 17 wives. Husbands are shown above the diagonal and wives are shown below the diagonal. TAS = TAS-2 alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally-oriented thinking; EP = empathy provided; ER = empathy received; TToward = turn toward; TAway = turn away; TAgainst = turn against; PEC = positive emotional connection; RelDissat = global relationship dissatisfaction.

* $p < .05$. ** $p < .01$. *** $p < .001$. All tests are two-tailed.

Table 66***Community Couples: Summary of Husbands' and Wives' Intrapersonal Correlation Coefficients on the Independent Outcome Variables***

Measures	TAS	DIF	DDF	EOT	EP	ER	TToward	TAway	TAgainst	PEC
TAS	-	.82***	.81***	.67***	-.52***	-.48***	-.29***	.33***	.23**	-.26**
DIF	.80 ***	-	.56***	.24**	-.44***	-.41***	-.18*	.27***	.13	-.16*
DDF	.79 ***	.54***	-	.36***	-.46***	-.44***	-.30***	.28***	.20**	-.26***
EOT	.70***	.24**	.38***	-	-.31***	-.24**	-.20**	.20*	.21**	-.19*
EP	-.32***	-.28***	-.30***	-.17*	-	.76***	.47***	-.44***	-.33***	.42***
ER	-.27***	-.30***	-.27***	-.05	.73***	-	.59***	-.57***	-.46***	.68***
TToward	-.12	-.15*	-.06	-.04	.38***	.51***	-	-.60***	-.44***	.66***
TAway	.17*	.21**	.13	.05	-.32***	-.42***	-.63***	-	.45***	-.49***
TAgainst	.24**	.20**	.15*	.19*	-.37***	-.45***	-.47***	.52***	-	-.44***
PEC	-.24**	-.24**	-.26**	-.06	.39***	.49***	.59***	-.58***	-.45***	-
RelDissat	.29***	.31***	.31***	.06	-.45***	-.62***	-.46***	.49***	.45***	-.43***

Note. $N = 170$ husbands and 170 wives. Husbands are shown above the diagonal and wives are shown below the diagonal. TAS = TAS, alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally-oriented thinking; EP = provided; ER = empathy received; TToward = turn toward; TAway = turn away; TAgainst = turn against; PEC = positive emotional control; RelDissat = global relationship dissatisfaction.

* $p < .05$. ** $p < .01$. *** $p < .001$. All tests are two-tailed.

Summary

Clinical husbands', and wives', own variables were significantly related in the following ways:

Alexithymia Variables

For both husbands and wives, their own total Alexithymia (TAS-20) was positively associated with their own Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and Externally Oriented Thinking (EOT). Their DIF was associated with higher DDF. Husbands' DDF was also associated with higher EOT. These findings provide further validation for utilising the TAS-20 to measure Alexithymia.

Outcome Variables

For both husbands and wives, their own Empathy Received was associated with higher Positive Emotional Connection and lower Relationship Dissatisfaction. Positive Emotional Connection was associated with lower Relationship Dissatisfaction.

Husbands' own Empathy Received was also related to higher Turn Toward. Turn Toward was related to lower Turn Away, higher Positive Emotional Connection, and lower Relationship Dissatisfaction. Their Turn Away was related to lower Positive Emotional Connection.

Wives' own Empathy Received was also associated with higher Empathy Provided. Their Turn Away was associated with higher Turn Against.

Alexithymia and Outcome Variables

Husbands' TAS-20, DDF, and EOT were all associated with decreased Empathy Provided.

Wives' DIF was associated with their decreased Empathy Provided and increased Relationship Dissatisfaction. EOT was associated with an increase in their Turn Away.

As with the Community couples, these findings have indicated that both husbands and wives are significantly affected by their own emotional experience, and that this influences their perceptions of the empathy, emotional connection, and relationship quality that exist between each other.

The next analyses examined how the variables are correlated between the couple partners. For consistency, the results are reported for the independent (Alexithymia) variables, the outcome variables, and for the alexithymia and outcome variables. See Table 68 for the community couples' findings.

Interpersonal Correlations between Husbands' and Wives' Alexithymia Variables

No significant associations were found between husbands' and wives' TAS-20, DIF, DDF, or EOT (see Table 67).

Interpersonal Correlations between Husbands' and Wives' Outcome Variables

Wives' Positive Emotional Connection was positively correlated with husbands' Positive Emotional Connection, and negatively correlated with husbands' Turn Against, and Relationship Dissatisfaction (see Table 67).

Interpersonal Correlations between Husbands' and Wives' Alexithymia and Outcome Variables

The significant results for both the husbands and wives were contrary to the directions that would be expected. Husbands' TAS-20, DIF, DDF, and EOT were all associated with lower Turn Away in wives. Wives' DDF was also associated with lower Turn Away in husbands (see Table 67). These unexpected directions led to re-checking the couples' raw data to confirm the accuracy of the coding and the data entry.

Summary

Testing of associations between clinical husbands and wives variables indicated the following:

Alexithymia Variables

None of the husbands' and wives' Alexithymia variables were significantly associated.

Outcome Variables

Wives' Positive Emotional Connection was associated with higher Positive Emotional Connection, and lower Turn Against and Relationship Dissatisfaction in husbands.

Alexithymia and Outcome Variables

Husbands' TAS-20, DIF, DDF, and EOT variables were related to lower Turn Away in wives. Wives DDF was also related to lower Turn Away in husbands.

Table 67

Clinical Couples: Summary of Husbands and Wives' Interpersonal Correlation Coefficients on all Independent Outcome Variables

VARIABLE	W TAS	W DIF	W DDF	W EOT	W EP	W ER	W TTow	W TAway	W TAg	W PEC
H TAS	-.34	-.21	-.15	-.45	-.07	.01	.13	-.66**	-.45	.02
H DIF	-.16	-.16	.18	-.38	.01	.19	-.07	-.56*	-.43	.29
H DDF	-.44	-.32	-.24	-.46	.13	.02	.24	-.54*	-.26	-.10
H EOT	-.30	-.02	-.44	-.30	-.37	-.28	.22	-.56*	-.43	-.24
H EP	.19	.17	.23	.03	-.03	.14	.18	.34	.48	.39
H ER	.07	.09	.24	-.21	.02	.28	.24	.18	-.05	.43
H TTow	.11	.26	.33	-.44	-.24	.06	.24	-.34	-.30	.38
H TAway	-.33	-.32	-.55*	.16	.30	.12	.08	.05	-.11	-.12
H TAg	-.13	-.07	-.27	.03	-.26	-.26	.13	.19	.05	-.18*
H PEC	.20	.15	.46	-.19	-.04	.34	-.08	-.06	-.20	.53*
H RD	-.04	-.19	-.12	.29	.08	-.29	-.42	.07	.13	-.60*

Note. $N = 17$ couples. W = wives, H = husbands. TAS = TAS-20 total alexithymia scale; DIF = difficulty identifying feelings; DDF = describing feelings; EOT = externally-oriented thinking; EP = empathy provided; ER = empathy received; TTow = turn toward; TAway = away; TAg = turn against; PEC = positive emotional connection; RD = global relationship dissatisfaction.

* $p < .05$. ** $p < .01$. *** $p < .001$. All tests are two-tailed.

Table 68

Community Couples: Summary of Husbands and Wives' Interpersonal Correlation Coefficients on all Independent Outcome Variables

VARIABLE	W TAS	W DIF	W DDF	W EOT	W EP	W ER	W TTow	W TAway	W TAg	W PEC
H TAS	.10	.08	.05	.08	-.24**	-.24**	-.07	.14	.14	-.13
H DIF	.15	.16*	.09	.07	-.14	-.20**	-.04	.08	.13	-.11
H DDF	.02	.06	.02	-.04	-.28***	-.27***	-.16*	.22**	.18*	-.21**
H EOT	.04	-.05	.00	.15*	-.14	-.08	.03	.05	-.00	.00
H EP	-.12	-.06	-.14	-.08	.46***	.44***	.11	-.25**	-.28***	.25**
H ER	-.13	-.09	-.16*	-.08	.43***	.44***	.20**	-.36***	-.31***	.39***
H TTow	.04	.00	.06	.03	.32***	.39***	.20**	-.25**	-.19*	.25**
H TAway	.02	.10	-.03	-.02	-.32***	-.42***	-.28***	.25**	.19*	-.32***
H TAg	-.02	-.00	.00	-.05	-.24**	-.23**	-.13	.09	.17*	-.18*
H PEC	.01	-.02	-.03	.07	.31***	.41***	.29***	-.39***	-.27***	.37***
H RD	.05	.14	.05	-.07	-.28***	-.42***	-.24**	.27***	.30***	-.28***

Note. $N = 170$ couples. W = wives, H = husbands. TAS = TAS-20 total alexithymia scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally-oriented thinking; EP = empathy provided; ER = empathy received; TTow = turn toward; TAway = turn away; TAg = turn against; PEC = positive emotional connection; RD = global relationship dissatisfaction.

* $p < .05$. ** $p < .01$. *** $p < .001$. All tests are two-tailed.

In preparation for the comparative analyses between the clinical and community couples, below is a description of husbands', and wives', TAS-20 levels. The TAS-20 category levels were computed in terms of low (score of ≤ 51) and high (score of ≥ 61) levels of alexithymia (e.g., Bagby & Taylor, 1997b). As with the community couples, a moderate category was also formed by accounting for scores between the low and high cut-off points, which produces a score range of 52 to 60 inclusive.

As seen in Table 69, there were a greater number of clinical wives than husbands in the low category, and a greater number of husbands than wives in the moderate and the high categories. See Table 70 for the community couples' findings.

Table 69

Clinical Couples: TAS-20 Total Scale Levels and Percentages for Husbands and Wives

Level	Husbands' Frequency	Husbands' Percent	Wives' Frequency	Wives' Percent
Low	10	58.8	12	70.6
Moderate	3	17.6	2	11.8
High	4	23.5	3	17.6

Note: $N = 17$ couples.

Table 70

Community Couples: TAS-20 Total Scale Levels and Percentages for Husbands and Wives

Level	Husbands' Frequency	Husbands' Percent	Wives' Frequency	Wives' Percent
Low	115	67.6	136	80.0
Moderate	36	21.2	25	14.7
High	19	11.2	9	5.3

Note: $N = 170$ couples.

To provide a description of the TAS-20, DIF, DDF, and EOT discrepancies within the clinical and community couples, presented below are the means and standard deviations of the discrepancies, and the percentages of the direction of the discrepancies; that is, whether husbands had higher scores than did wives, or wives had higher scores than did husbands.

As seen in Table 71, the clinical group had higher discrepancy means (and standard deviations) than did the community group, and this was on all of the alexithymia variables. With the direction of the discrepancies, similarly to the community couples, a greater proportion of clinical husbands had higher scores than their wives compared to wives having higher scores than their husbands, and this was on the TAS-20, DDF, and EOT. In contrast to the community couples, for DIF, a greater proportion of clinical wives had higher scores than their husbands as opposed to husbands having the higher score.

Table 71

Clinical and Community Group Discrepancy Means, Standard Deviations, and Percentages of the Discrepancy Directions

	Clinical Couples				Community Couples			
	<i>M</i>	<i>SD</i>	H > W %	W > H %	<i>M</i>	<i>SD</i>	H > W %	W > H %
TAS-20	17.59	12.82	58.8	41.2	12.65	9.77	62.3	37.7
DIF	8.59	5.96	35.3	58.8	6.29	4.74	52.3	47.7
DDF	6.76	4.82	58.8	29.4	5.34	3.82	68.8	31.2
EOT	5.88	5.42	70.6	29.4	5.65	3.91	62.2	37.8

Note. H > W = husbands higher than wives; W > H = wives higher than husbands. TAS-20 = Toronto Alexithymia Scale; DIF = difficulty identifying feelings; DDF = difficulty describing feelings; EOT = externally oriented thinking.

In the next section, phase 2 of the comparisons between the clinical community couples is presented. The aim of conducting comparisons between the two groups was to examine whether there were significant differences in alexithymia, the outcome variables, and alexithymia discrepancies between couples who had recently entered relationship therapy and general population couples who were not in therapy.

PHASE 2: GROUP COMPARISONS

Clinical Couples and Community Couples

The comparisons between the clinical and community couples were conducted utilising Generalised Linear Mixed Models (GLMMs) to compare the two groups on three separate areas: (1) the TAS-20 total scale, and the factors of DIF, DDF, and EOT; (2) the outcome variables of Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction; and (3) the TAS-20, DIF, DDF, and EOT discrepancies between couple partners.

The following section contains a brief overview of the analytical techniques, the associated statistical assumptions, issues of multiple statistical tests and power, and the findings from the analyses.

Overview of Generalised Linear Mixed Models (GLMMs)

A series of Generalised Linear Mixed Models (GLMMs) were tested to examine differences between the clinical group ($N = 17$ couples) and the community group ($N = 170$ couples). The GLMM was implemented through SPSS (Version 20) GENLINMIXED procedure.

The GLMM represents a special class of regression model, which is ‘generalised’ in the sense that it can handle outcome variables with markedly non-normal distributions, and it is ‘mixed’ in that it includes both random and fixed effects. For the present GLMMs, there were two nominal random effects (participant and dyad) and two categorical fixed effects: Group (Clinical versus Community) and Gender (husbands versus wives), plus the Group by Gender interaction. Intra-dyad dependencies were controlled by specifying a GLMM in which participants were nested within dyads.

Statistical Assumptions

GLMM assumptions are based on the traditional between-subjects ANOVA model for comparing independent groups, which requires the assumptions of normality, homogeneity of variance, and independence of observations to be satisfied. Within the GLMM, utilising the ‘robust statistics’ option accounted for violations of normality and homogeneity of variance. Furthermore, by specifying the multilevel nature of the current data (participant nested within dyad) in the syntax, the GLMM could accommodate the intra-dyad dependencies in the outcome measures. Hence, it could account for relatedness within the dyadic data.

To assist other researchers who may wish to conduct similar analyses, below is an example of the SPSS syntax for comparing the two groups on an alexithymia variable, and an example of the syntax for comparing the groups on their discrepancies. Note that this will generate main effects for the variable of interest, gender direction, and variable by gender direction interactions.

Example: GLMM Syntax for Comparing the Groups on the TAS-20 Variable

```
GENLINMIXED
/DATA_STRUCTURE SUBJECTS=Dyad* Participant
/FIELDS TARGET=TAS_TOTAL TRIALS=NONE OFFSET=NONE
/TARGET_OPTIONS DISTRIBUTION=NORMAL LINK=IDENTITY
/FIXED EFFECTS=Sample Gender Sample*Gender USE_INTERCEPT=TRUE /RANDOM
USE_INTERCEPT=TRUE SUBJECTS=Dyad*Participant
COVARIANCE_TYPE=VARIANCE_COMPONENTS
/RANDOM USE_INTERCEPT=TRUE SUBJECTS=Participant
COVARIANCE_TYPE=VARIANCE_COMPONENTS
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=ASCENDING
INPUTS_CATEGORY_ORDER=ASCENDING MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=robust
/EMMEANS TABLES=Sample COMPARE=Sample CONTRAST=PAIRWISE
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
```

Example: GLMM Syntax for Comparing the Groups on the TAS-20 Discrepancies

```
GENLINMIXED
/DATA_STRUCTURE SUBJECTS=Dyad
/FIELDS TARGET=TAS_20_Discrep TRIALS=NONE OFFSET=NONE
/TARGET_OPTIONS DISTRIBUTION=NORMAL LINK=IDENTITY
/FIXED EFFECTS=Sample TAS_Discrep_Direction Sample*TAS_Discrep_Direction
USE_INTERCEPT=TRUE
/RANDOM USE_INTERCEPT=TRUE SUBJECTS=Dyad
COVARIANCE_TYPE=VARIANCE_COMPONENTS
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=ASCENDING
INPUTS_CATEGORY_ORDER=ASCENDING MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=model
/EMMEANS TABLES=TAS_Discrep_Direction COMPARE=TAS_Discrep_Direction
CONTRAST=PAIRWISE
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
```

Controlling for Multiple Statistical Tests

In order to optimise the likelihood of convergence, a separate GLMM analysis was run for each variable. However, in analysing each of the variables independently of the others, there was a need to consider inflation of the Familywise error rate. To account for this, the per-test

alpha level required correction to control for the inflation. Given the small clinical sample, it was necessary to conserve statistical power, and it was therefore considered judicious to apply the alpha correction within groups of conceptually related outcomes rather than across the entire set of outcomes. Five such groups were defined: (1) the TAS-20 total and its DIF, DDF, and EOT subscales (per-test alpha = $.05/4 = .0125$); (2) the outcome variables of Empathy Provided and Empathy Received (per-test alpha = $.05/2 = .025$), (3) Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection (per-test alpha = $.05/4 = .0125$), (4) Relationship Dissatisfaction (per-test alpha = $.05/1 = .05$), and (5) the TAS-20, DIF, DDF, and EOT discrepancies (per-test alpha = $.05/4 = .0125$).

Statistical power

One important value of utilising GLMM is that the model is robust to large inequalities between group sizes. This statistical technique was therefore ideally suited for comparing the small sample of clinical couples to the substantial sample of community couples. However, because statistical power is generally determined by the size of the smaller group, the GLMM had only sufficient power to detect sizable effects. The effect sizes were estimated against partial eta-squared, and eta-squared statistics; effect sizes were evaluated as $.01 =$ small effect, $.06 =$ moderate effect, and $.15+ =$ large effect.

Results

Group Comparisons: TAS-20 total scale and the DIF, DDF, and EOT Subscales

TAS-20 (per-test alpha = .0125).

For the TAS-20 total scale, there were no significant main effects of Group ($F[1,370] = 0.85, p = .359$), or of Gender ($F[1,370] = 1.52, p = .218$), and the Group x Gender interaction was not significant ($F[1,370] = 0.57, p = .449$). This indicates that there were no significant differences on total Alexithymia between clinical and community spouses.

DIF, DDF, and EOT (per-test alpha = .0125).

There were no significant main effects of Group for DIF ($F[1,370] = 3.60, p = .059$), DDF ($F[1,370] = 1.67, p = .197$), or EOT ($F[1,370] = 2.17, p = .141$). There were no significant main effects of Gender for DIF ($F[1,370] = 0.94, p = .333$) or for DDF ($F[1,370] = 3.47, p = .063$); however, husbands scored significantly higher than wives on EOT ($F[1,370] = 7.88, p = .005$). There were no significant Group x Gender interactions for DIF $F[1,370] = 1.29, p =$

.257, DDF $F[1,370] = 0.57, p = .451$, or EOT: $F[1,370] = 0.08, p = .780$. Because there were no significant Group x Gender interactions, the EOT Gender effect of husbands having higher EOT than wives applied to both the clinical group and the community group.

Group Comparisons: Outcome Variables

In the next set of GLMM analyses, clinical and community group differences were examined on the outcome variables of Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction.

Empathy Provided (per-test alpha = .025).

For Empathy Provided, there was a significant main effect of Group, with clinical couples showing lower Empathy Provided than the community group ($F[1,370] = 32.91, p < .001$), partial eta-squared = .082, indicating a moderate-large effect size. The main effect of Gender was non-significant ($F[1,370] = 0.39, p = .534$), and the Group x Gender interaction was not significant ($F[1,370] = 0.71, p = .399$). These results indicate that, independent of gender, the clinical group scored significantly lower than the community group in Empathy Provided.

Empathy Received (per-test alpha = .025).

For Empathy Received, there was a significant main effect of Group, with clinical couples showing lower Empathy Received than the community group ($F[1,370] = 27.06, p < .001$), partial eta-squared = .068, indicating a moderate effect size. There was also a significant main effect of Gender ($F[1,370] = 7.87, p = .005$), with husbands scoring significantly higher than wives in Empathy Received. The Group x Gender interaction was not significant ($F[1,370] = 1.51, p = .220$). These results indicate that the clinical group scored significantly lower than the community group in Empathy Received, and that in both the clinical and community groups, husbands scored significantly higher than did wives in Empathy Received.

Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection (per-test alpha = .0125).

There was a significant main effect of Group, with clinical couples showing the lower Turn Toward ($F[1,370] = 12.34, p < .001$, partial eta-squared = .032, indicating a small to moderate effect), higher Turn Against ($F[1,370] = 25.30, p < .001$, partial eta-squared = .064, indicating a moderate effect), and lower Positive Emotional Connection ($F[1,370] = 12.64, p < .001$,

partial eta-squared = .033, indicating a small to moderate effect. However, the Turn Away main effect did not reach significance ($F[1,370] = 6.18, p = .013$, partial eta-squared = .016).

The main effect of Gender was non-significant for all four variables (Turn Toward: $F[1,370] = 0.35, p = .556$; Turn Away: $F[1,370] = 0.41, p = .521$; Turn Against: $F[1,370] = 4.98, p = .026$; and Positive Emotional Connection: $F[1,370] = 1.90, p = .168$).

The Group x Gender interaction was also not significant for the four variables (Turn Toward: $F[1,370] = 0.35, p = .556$; Turn Away: $F[1,370] = 0.02, p = .892$; Turn Against: $F[1,370] = 1.59, p = .177$; Positive Emotional Connection: $F[1,370] = 1.11, p = .292$).

The findings indicate that compared to the community group, the clinical group was significantly lower on Turn Toward and Positive Emotional Connection, and significantly higher on Turn Against. The between-group difference for Turn Away ($p = .013$) was not significant at the Bonferroni adjusted alpha-level of .0125. The lack of a significant main effect of Gender, or significant Group x Gender interaction indicates that these between-group differences applied to both husbands and wives.

Relationship Dissatisfaction (per-test alpha = .05). There was a significant main effect for Group, with clinical couples showing the higher Relationship Dissatisfaction ($F[1,370] = 12.34, p < .001$, partial eta-squared = .032, indicating a small to moderate effect). There was a non-significant main effect of Gender ($F[1,370] = 0.82, p = .365$), and the Group x Gender interaction was not significant ($F[1,370] = 1.12, p = .291$). This indicates that the clinical group husbands and wives reported higher levels of Relationship Dissatisfaction than did the community group spouses.

Group Comparisons for the Discrepancies: TAS-20, DIF, DDF, and EOT

The next set of GLMMs examined the *discrepancies* between partners on the TAS-20 and its three DIF, DDF, and EOT subscales. For these analyses, the Gender fixed effect was replaced by a fixed effect that coded the Direction of the discrepancy (1 = husbands > wives; 2 = wives > husbands). The category husbands = wives, indicating no discrepancies, was not analysed due to the infrequency of this category in the clinical group.

TAS-20 Discrepancies (per-test alpha = .0125).

For the TAS-20 discrepancies, the Group x Direction interaction was significant ($F[1,179] = 23.81, p < .001$), indicating that the main effects of Group ($F[1,179] = 2.77, p = .098$) and Direction ($F[1,179] = 0.32, p = .570$) could no longer be interpreted independently of one

another. LSD (least significant difference) contrasts conducted across the interaction indicated that the clinical group had significantly larger discrepancy scores than did the community group, ($t[179] = 8.99, p = .002$, eta-squared = .310, indicating a very large effect), but this was only when the wives had higher TAS-20 scores than the husbands.

DIF Discrepancies (per-test alpha = .0125).

The results for the DIF discrepancies indicated that there were no significant main effects for Group ($F[1,165] = 3.72, p = .055$) or Direction ($F[1,165] = 0.09, p = .761$), and no significant interaction ($F[1,165] = 0.04, p = .838$).

DDF Discrepancies (per-test alpha = .0125).

The results for the DDF discrepancies mirrored the results for the TAS-20 discrepancies. The Group x Direction interaction was significant ($F[1,165] = 8.04, p = .005$), indicating that the main effects of Group ($F[1,165] = 6.65, p = .011$), and Direction ($F[1,165] = 0.18, p = .668$) could no longer be interpreted independently of one another. The LSD contrasts conducted across the interaction indicated that the clinical group had significantly larger DDF discrepancies than the community group, but only when the wives had higher DDF scores than the husbands ($t[165] = 3.38, p = .001$, eta-squared = .065, indicating a moderate effect).

EOT Discrepancies (per-test alpha = .0125).

For the EOT discrepancies, the main effect of Group was non-significant ($F[1,177] = 0.01, p = .951$), as was the Group x Direction interaction ($F[1,177] = 0.16, p = .689$); however, the main effect for Direction was significant ($F[1,177] = 33.45, p < .001$), indicating that, for both the clinical and community groups, EOT discrepancies were significantly larger when husbands had higher EOT scores than wives as opposed to when wives had higher EOT scores than husbands.

Summary

Research Question 1: Group and Gender Differences on TAS-20, DIF, DDF, and EOT

The clinical and community couple groups did not differ significantly on total Alexithymia (TAS-20), Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), or Externally Oriented Thinking (EOT).

In both couple groups, husbands were significantly higher than wives on EOT.

Research Question 2: Group and Gender Differences on the Outcomes

Clinical couples had significantly lower Empathy Provided and Empathy Received than did community couples. The effects were moderate-large for Empathy Provided, and moderate for Empathy Received.

In both groups, husbands scored significantly higher on Empathy Received than did wives.

Clinical couples had significantly lower Turn Toward and Positive Emotional Connection, and higher Turn Against than did the community couples. Turn Away fell just short of significance at the adjusted alpha level. The effects were small-moderate for Turn Toward and Positive Emotional Connection, and moderate for Turn Against.

The group differences applied to both husbands and wives.

Clinical couples had significantly higher levels of Relationship Dissatisfaction than did community couples; the effect was small-moderate.

The group differences applied to both husbands and wives.

Research Question 3: Group and Gender Differences on the TAS-20, DIF, DDF, and EOT Discrepancies

Clinical couples had significantly larger discrepancies than did community couples for the TAS-20 and DDF, but this was only when wives had higher TAS-20 and DDF than did husbands. The effects were very large for the TAS-20, and moderate for DDF.

Clinical and community couples did not differ significantly on DIF discrepancies, and there were no differences between the husbands and wives in the groups.

Clinical and community couples did not differ significantly on EOT discrepancies.

For both groups, EOT discrepancies were significantly larger when husbands had higher EOT than did wives.

Overall, this study found that, despite the small sample of clinical couples, and the applied adjusted alpha levels, significant findings emerged. The analysis of gender differences indicates that clinical husbands reported significantly more Empathy Received than did their wives. The intrapersonal correlations found that, as with the community couples, clinical spouses were significantly affected by their own emotional difficulties, and that these influenced their own Empathy, Emotional Connection, and Relationship Dissatisfaction, albeit in different ways.

Interpersonal correlations found no significant associations between spouses on any of the Alexithymia variables. However, wives' Positive Emotion Connection was associated with higher Positive Emotional Connection, and lower Turn Against and Relationship Dissatisfaction in their husbands. Husbands' TAS-20, DIF, DDF, and EOT were all related to lower Turn Away in wives, and wives' DDF was related to lower Turn Away in husbands.

Comparisons between the clinical and community couples indicate that the groups did not differ significantly on any of the alexithymia variables. However, as a group, clinical couples had the higher prevalence rates of total Alexithymia, and a greater proportion of clinical couples had high levels of total Alexithymia. Furthermore, compared to the community couples, the clinical husbands and wives reported significantly lower Empathy Provided, Empathy Received, Turn Toward and Positive Emotional Connection, and higher Turn Against, and Relationship Dissatisfaction. These results support Snyder (1997) regarding therapy couples having more distress in important relationship areas than do general population couples. The views of Gottman and DeClaire (2006), and Gottman and Silver (1999), are also supported regarding the importance of empathy and emotional connection variables within couples' relationships, and the evidence that unhappy couples exhibit less of the associated positive qualities than do happy couples.

Of particular importance are the results pertaining to couples' alexithymia discrepancies. The findings indicate that there were no group differences between community and clinical couples for alexithymia *per se*; however, clinical couples had significantly larger partner discrepancies in total Alexithymia and Difficulty Describing Feelings when it was the wives who had higher difficulties in these aspects than did their husbands. This lends support to the detrimental effects of partners' emotional mismatches (e.g., Gottman, 1999; Gottman et al., 1996; Swiller, 1988), and the possibility that this is a factor influencing the unequal benefits gained between partners who have relationship therapy (e.g., Bambling, 2007).

Although these findings are of interest to the wider literature, they are of specific significance to the clinical field because they signify the need for therapists to consider the features of alexithymia when treating couples' relationship distress. However, in order to utilise this information when treating couples, a fundamental requirement is that therapists are aware of alexithymia and the wide-ranging effects that the emotion-related difficulties can have on individuals' intrapersonal and interpersonal experiences. This raised a question about whether therapists are, in fact, aware of the alexithymia construct. This important issue was investigated in Study 3, which is presented in the next chapter.

CHAPTER SIX

Study 3: Therapist Interviews

When couples are adversely affected by the presence of high alexithymia, their relationship distress may lead them to seek professional therapeutic help. Couple therapists will likely be familiar with couples presenting with emotional difficulties because “emotion and how people feel about expressing it appear to be central to almost all the therapy we do with couples” (Gottman, 1999, p. 307). In addition, experienced therapists may recognise the features of alexithymia yet not have knowledge of the construct (Taylor & Bagby, 2013). If this is the case, therapists will not be aware of the difference between those who have emotional competence but inhibit expression of their feelings and those who are highly alexithymic.

Clinically, highly alexithymic clients, and couples, share the commonalities of being difficult to treat, and having less than ideal therapeutic outcomes (e.g., Bambling, 2007; Gottman, 1998; Gurman, 2001; Ogrodniczuk et al., 2011; Samur et al., 2013; Swiller, 1988; Taylor, 1997b; Taylor & Bagby, 2013). In considering these similarities, there appears to have been no prior investigation of whether couple therapists’ knowledge of alexithymia may be a common source of influence contributing to their therapeutic difficulties and outcomes. Given that therapists has been identified as having the most pivotal role in the treatment process (Wampold, 2001; 2010), it seemed important to examine couple therapists’ knowledge of alexithymia. An overview of the rationales and issues is presented below.

Overview of the Rationales and Issues

There were three main rationales that inspired the examination of couple therapists’ knowledge of alexithymia. One rationale arose from the paper by Bagby et al. (1991a) in which the authors stated that the alexithymia construct “is relatively unknown to clinical psychologists” (p. 222). Although Bagby et al. specified clinical psychologists, my sense was that this could be generalised to include practitioners within a broader range of therapeutic qualifications. A second rationale was related to the paper by Swiller (1988), which detailed the processes and difficulties that can be involved in marital therapy with spouses who are discrepant in their levels of alexithymia. A third rationale was based on evidence of couple partners’ emotional differences, and findings that spouses’ “emotional mismatches can predict divorce with 80% accuracy” (Gottman, 1999, p. 307).

Based on the three rationales, it was contemplated whether these may partially explain why couple therapy is difficult, outcomes are poor (Gottman, 1999), and that, in Australia, the number of divorces is increasing (ABS, November, 2013). The plausibility of this explanation was strengthened with the data that the most commonly visited ‘other’ health professionals are psychologists (ABS, March, 2013), and that there are 25,621 fully registered practising psychologists, of whom 6,467 are clinical psychologists (Psychology Board of Australia registration data tables, October, 2013).

In addition, the prevalence of high alexithymia was a salient issue to consider. Specific to couples, evidence has been found of prevalence rates within community couple samples of 21% in males and 18% in females (Eizaguirre, 2002), and 7.5% in males and 6.2% in females (Frye-Cox & Hesse, 2013). Furthermore, although couples may attend therapy for their relationship distress, the partners may also have comorbid medical and/or mental health conditions. Findings have indicated that alexithymia overlaps a wide range of medical, psychiatric, and psychological conditions, and that associated alexithymia prevalence rates in samples with these conditions can range between 12.5% (Parker et al., 1993) and 68.8% (Bourke et al., 1992).

Given the population and prevalence data, and the fact that the therapy repertoires of many clinicians include treatment with individuals, families, groups, as well as couples, it seemed reasonable to assume that, within the therapeutic context, practitioners are, knowingly or unknowingly, in contact with a significant number of highly alexithymic individuals.

As shown in the literature review, even with awareness and understanding of the alexithymia construct, attaining significant “therapeutic progress is at best an uphill struggle” (Swiller, 1988, p. 53). This strengthens the proposition that clinicians’ lack of unawareness of the alexithymia construct may be a key factor that jeopardises the therapeutic endeavour. This is largely due to a number of possible therapist- and client-related responses that can occur within the process of treatment with highly alexithymic clients.

Although the possible adverse consequences of therapists’ lack of awareness of alexithymia may be applicable within all treatment scenarios, they are compounded for the couple therapist, and this may be especially so when the couple involves one partner who is highly alexithymic and the other partner who is more emotionally aware and expressive (Swiller, 1988; Taylor, 2001).

Encouragingly, Swiller (1988) suggested that marital therapy is possible with alexithymic-discrepant couples; however, he cautioned that the process will be slow, boring, and require considerable sensitive educative instruction by the therapist.

Therefore, in conceptually linking the alexithymia and couple therapy challenges and poor outcomes, the following is proposed: If couple therapists are not aware of alexithymia, and are treating an alexithymic-discrepant couple, the true nature of the spouses' emotional differences will not be recognised or addressed in the therapy. This lack of recognition may lead therapists to form implicit incorrect assumptions and unrealistic expectations about the emotional capacities of highly alexithymic clients (Krystal, 1982-1983, 1988). Additionally, therapists may have negative countertransference reactions toward these clients (Krystal, 1982-83; Ogrodniczuk, 2007; Ogrodniczuk et al., 2005, 2008; Rasting et al., 2005; Swiller, 1988; Taylor, 1977, 1984b; Taylor & Bagby, 2013) due to their communication styles, the difficulties they have with attachment to therapists (Mallinckrodt et al., 1998), and their use of immature defenses and maladaptive coping behaviours to manage distress (Helmes et al., 2008; Parker et al., 1998). These therapeutic aspects have the potential to adversely influence the alliance, which is known to contribute to treatment outcomes (Wampold, 2001, 2010).

A further consequence of therapists' lack of awareness of alexithymia may be that they fail to realise that their treatment will require modification to accommodate highly alexithymic clients' emotional deficits, somatisation, and impaired symbolisation (Frewen et al., 2008; Swiller, 1988; Taylor, 1997b; Taylor & Bagby, 2013). Should the treatment not be modified, and therapists misinterpret these clients' emotion-related difficulties as resistance or noncompliance, they may urge these individuals to complete emotion-focused tasks that are beyond their capabilities. When unable to complete such tasks, there is a danger of reinforcing that person's role as 'the problem' in the relationship, which may exacerbate his or her low self-esteem (Swiller, 1988).

This, in turn, may produce undue anxiety and distress for that person, which has the potential to exacerbate any serious underlying physical conditions (Krystal, 1979, 1988; Taylor, 1997a, b; Taylor & Bagby, 2013). Furthermore, increased anxiety and distress may result in alexithymic clients attempting to relieve their upset through unhealthy behaviours such as disordered eating, and misuse of alcohol and/or other drugs (Krystal, 1979; Taylor, 1997a; Taylor & Bagby, 2013). The added pressure produced by these processes may exacerbate the tension within the relationship, and lead to termination of the therapy.

Therefore, therapists' lack of knowledge about alexithymia may partially account for the one third of couples who leave treatment before having achieved positive gains (Gurman, 2011), the group of couples for whom therapy results in partners' unequal resolution of their relationship distress (e.g., Bambling, 2007), and the lack of long-term maintenance of initial benefits that have been gained (e.g., Atkinson, 2005; Bambling, 2007; Doss et al., 2004; Gottman, 1998). With the pivotal role played by therapists in these treatment processes and outcomes, examination of their awareness of alexithymia seemed to be of fundamental and vital importance. The current study addressed this empirical need with a couple therapist sample that spanned a range of clinical qualifications, including that of clinical psychology.

Study Design

A semi-structured interview was developed, which was utilised to obtain data on the sample's demographic information and their clinical observations, knowledge, and experience pertaining to a range of alexithymia-related aspects. Participants were recruited from the group of couple therapists that had been approached about referring their couple clients for Study 2. After agreeing to take part in the interview study, each therapist was interviewed either by telephone or during a face-to-face meeting at the practitioner's place of business or private residence.

Structure of the Interview and Research Questions

The structure of the interview closely reflected the research questions. These are listed below, and were analysed, in the order in which they were asked during the interviews. The overall aim of the interview structure was to take a 'funnel' approach: This approach began with therapists' demographic data, which enabled therapist gender and qualification to be examined in association with many of the research questions. Following this were the main questions, which related to clinical observations of the alexithymia features, therapy couples' alexithymia discrepancies, and therapists' awareness and understanding of the alexithymia construct. The secondary questions captured information that related to alexithymia prevalence and associated client gender, therapists' sources of alexithymia knowledge, assessment, and clinical experience of alexithymia.

Research Questions

The first set of research questions examined therapists' recognition of the core features of the construct as measured by the TAS-20, and whether such recognition was associated with therapists' gender and qualifications. Secondary questions expanded the investigation to assess therapists' views on the prevalence of the features in their clients, and observations of the client gender most likely to have the characteristics.

RQ1a Independent of awareness of alexithymia, do therapists recognise in their clients the emotion-related features of alexithymia?

RQ1b Is recognition of the features associated with therapist gender?

RQ1c Is recognition of the features associated with therapist qualification?

Secondary Questions:

- 1.1** Occurring as a cluster within an individual, in what percentage of clients would these features be observed?
- 1.2** Does the percentage of clients differ across therapist gender?
- 1.3** Does the percentage of clients differ across therapist qualification?
- 1.4** Are the features of alexithymia likely to be seen in male clients, female clients, or equally in both genders?
- 1.5** Are observations of gender prevalence associated with therapist gender?
- 1.6** Are observations of gender prevalence associated with therapist qualification?

The second set of research questions related to Swiller (1988), and Yelsma and Marrow (2003), regarding alexithymia discrepancies between couple partners, and Bambling (2007) regarding the issue of inequality in distress reduction between couple partners. Associations with therapist gender and qualification were also examined.

RQ2a Do therapists observe noticeable differences (inequality) between couple partners in the emotion-related features of alexithymia?

RQ2b Are observations of partner differences associated with therapist gender?

RQ2c Are observations of partner differences associated with therapist qualification?

In narrowing the focus to alexithymia, the third set of research questions examined the statement by Bagby et al. (1991a) regarding alexithymia being relatively unknown to clinical psychologists. These questions assessed therapists' awareness of the term 'alexithymia', and whether this was associated with therapists' gender and clinical qualification. Secondary questions asked whether therapists had also heard of emotional intelligence and psychological mindedness, and they examined how these constructs were associated with therapists' gender and clinical qualification. The EI and PM questions were distractor items in the interview and were included in the analyses for completeness.

RQ3a Are therapists aware of the term 'alexithymia'?

RQ3b Is therapist gender associated with awareness of the term 'alexithymia'?

RQ3c Is clinical qualification associated with awareness of the term 'alexithymia'?

Secondary Questions:

3.1 Are therapists aware of the term 'emotional intelligence'?

3.2 Is therapist gender associated with awareness of the term 'emotional intelligence'?

3.3 Is clinical qualification associated with awareness of the term 'emotional intelligence'?

3.4 Are therapists aware of the term 'psychological mindedness'?

3.5 Is therapist gender associated with awareness of the term 'psychological mindedness'?

3.6 Is clinical qualification associated with awareness of the term 'psychological mindedness'?

In the fourth set of research questions, the investigation was of therapists' understanding of the alexithymia construct, and whether such understanding was associated with their gender and qualifications. Secondary questions related to therapists' understanding of the EI and PM constructs, the source of their knowledge about alexithymia, whether they assessed clients for high alexithymia, and if so, the assessment method used to do this.

RQ4a What is therapists' understanding of the alexithymia construct?

RQ4b Is therapist gender associated with the understanding of alexithymia?

RQ4c Is clinical qualification associated with the understanding of alexithymia?

Secondary Questions:

- 4.1.1** What is therapists' understanding of the EI construct?
- 4.1.2** Is therapist gender associated with the understanding of EI?
- 4.1.3** Is clinical qualification associated with the understanding of EI?
- 4.1.4** What is therapists' understanding of the PM construct?
- 4.1.5** Is therapist gender associated with the understanding of PM?
- 4.1.6** Is clinical qualification associated with the understanding of PM?
- 4.1.7** What is the source of therapists' knowledge about alexithymia?
- 4.1.8** Do therapists specifically assess clients for high alexithymia?
- 4.1.9** How do therapists assess high alexithymia?

The fifth research question related to therapy progress with couples when a high level of alexithymia is present (e.g., Swiller, 1988).

- RQ.5** What impact, if any, does the presence of high alexithymia have on couples' therapy progress?

Methodology

Inclusion Criteria for the Study

To enable therapists to provide current and qualified observations, the inclusion criteria required participants to be currently practising therapists, and to have had a minimum of two years of clinical experience that included working therapeutically with a substantial number of individuals and couples. The criterion of having worked with a 'substantial number of individuals and couples' meant that a number of therapists were ineligible for the study. This was generally because they were working on a part-time basis within large private practices and/or had not had experience with a sufficient number of couples.

Participants

Participants comprised 61 therapists who were currently practising within the metropolitan area in Perth, Western Australia. The sample included 32 therapists who were working in private practice, 28 who worked for not-for-profit agencies, and one who worked for an organisation that provides therapeutic support for Employee Assistance Programs.

Participant Characteristics

The sample consisted of 25 males (41%) and 36 females (59%). As shown in Table 72, therapists held a range of generalist and specialist primary qualifications, with the majority having a specialist primary qualification in clinical psychology; this was followed closely by the specialty of counselling psychology. Note that a clinical psychology qualification also formed part of one DPsychology degree and two PhD degrees. Therefore, the category of clinical psychology was analysed based on the count of 21.

Table 72

Therapists' Primary Clinical Qualification (N = 61)

Demographic Variables	Frequency	Percentage (%)
Counselling Certificate/Diploma	5	8.2
Marital Therapy Certificate	5	8.2
Bachelor of Social Work	5	8.2
Bachelor of Psychology	4	6.6
Master of Clinical Psychology	18	29.5
Master of Counselling Psychology	15	24.6
Doctor of Psychology (DPsychology)	2	3.3
Doctor of Philosophy (PhD) in Psychology	3	4.9
Doctor of Psychiatry	1	1.6
Miscellaneous	3	4.9

Note. The 'Miscellaneous' category encompassed participants with a Bachelor of Divinity in Pastoral Care, Licentiate of Family Counselling, or Marriage Guidance Certificate.

With duration of clinical practise, as seen in Table 73, therapists' years of practise spanned two to 36 years, with the highest frequency category being six practitioners who had 25 years of clinical experience.

Table 73***Raw Scores of Therapists' Duration of Clinical Practise (N = 61)***

Clinical Practise	Frequency	Percentage (%)	Clinical Practise	Frequency	Percentage (%)
2 years	2	3.3	22 years	1	1.6
3 years	2	3.3	23 years	1	1.6
4 years	3	4.9	24 years	1	1.6
5 years	1	1.6	25 years	6	9.8
6 years	2	3.3	26 years	1	1.6
7 years	5	8.2	27 years	1	1.6
8 years	1	1.6	28 years	2	3.3
9 years	2	3.3	29 years	1	1.6
10 years	3	4.9	30 years	2	3.3
12 years	1	1.6	31 years	1	1.6
13 years	1	1.6	32 years	3	4.9
14 years	1	1.6	33 years	1	1.6
15 years	3	4.9	34 years	1	1.6
16 years	4	6.6	36 years	3	4.9
20 years	5	8.2			

Note. No data were reported beyond 36 years.

Summary

The therapist sample comprised a greater number of female than male practitioners. The majority of therapists had generalist or postgraduate qualifications in psychology, and most had a substantial degree of clinical experience.

Materials

Interview Instruments

The development of the semi-structured interview instrument was structured and administered based on protocols detailed by Streiner and Norman (1995). The interview was designed to capture a range of related, yet separate, types of information from therapists. Information collected included: (1) demographic data on their gender, primary clinical qualification, and duration of practise, (2) therapists' clinical observations of the key features of alexithymia in their individual clients as measured by the TAS-20 scale (namely, difficulty identifying feelings - DIF, difficulty describing feelings - DDF, and externally oriented thinking - EOT), as well as the features of limited reflection of inner processes, and a lack of emotional insight. The latter two questions were included because they are indirectly measured by the TAS-20, and have been empirically and anecdotally associated with the alexithymia construct (Bagby & Taylor, 1997a; Parker et al., 2001), (3) the percentage of clients with the features, (4) the gender most likely to have the features, (5) noticeable differences in the features between couple partners, (6) information regarding awareness of the term 'alexithymia', understanding of the construct, assessment of high alexithymia, and (7) the impact of high alexithymia on couple therapy progress (see Appendix H for the interview instrument).

To eliminate the need for memorisation of the response choices, participants were also provided with a rating scale with the response format of: (1) Almost Never, (2) Sometimes, (3) Often, and (4) Nearly Always. Therapists who were interviewed face-to-face were given the response card, and those interviewed by telephone were asked to write down and refer to the response options.

Demographic Data Questions

The interview was structured such that demographic data were collected with the first three questions, which included the therapist's gender, and enquiry about his or her primary clinical qualification and length of time working in a therapeutic capacity. This allowed participants to respond to the opening questions with certainty and confidence, and provided an opportunity to establish a comfortable rapport. These aspects were considered important in creating a positive atmosphere for the remainder of the interview process (Streiner & Norman, 1995). This process was also assisted by the fact that I was already acquainted with many of the therapists due to our previous contact regarding recruitment of couples for Study 2.

The age of the therapist was initially included in the demographic questions; however, unexpectedly, I found that within the first four interviews (with female therapists), there was a ‘refusal to answer’ response. Moreover, it seemed to be creating a somewhat adversarial attitude toward the interview (and, I suspect, the interviewer). Light humour successfully eased the atmosphere with three of the four therapists; this was not achieved with the fourth therapist, although the interview was ultimately completed.

Within these first four responses, the consensus was that knowledge of clinical experience was “of far greater value” than knowing their age. In realising the potential for this question to disrupt future interviews and/or produce participation refusal (Streiner & Norman, 1995), it was necessary to re-consideration its inclusion. Following supervisory consultation, it was decided that conducting the interviews within a congenial atmosphere, and gaining the wealth of information available from the therapists, were worthwhile compromises to gathering data on age. Therefore, this question was excluded from the interview protocol. Following the three demographic questions, nine clinically-based questions were presented.

Clinical Questions

The first of the nine clinical questions started from a broad perspective by seeking therapists’ ratings of how often they observed the (alexithymia) emotion-related features in their individual clients.

The second question asked for the percentage of individual clients in which the features were observed. The third question asked whether the features were more likely to be observed in males, females, or equally in both genders.

The fourth question moved the focus to therapists’ couple clients by asking how often they observed couple clients in whom the partners showed noticeable differences in the features discussed in the first clinical question.

To assess therapists’ awareness of the alexithymia term, Question 5 asked whether they had heard of the terms (a) emotional intelligence, (b) alexithymia, and (c) psychological mindedness. The concepts of emotional intelligence (EI) and psychological mindedness (PM) were included because they have both been negatively associated with alexithymia (Bagby, Taylor et al., 1994; Dawda & Hart, 2000; Parker et al., 2001), and therefore, served as related distraction items. The inclusion of the distraction items, and having the alexithymia question second in the order, was also related to the notion of participants having a “natural tendency to be seen in a good light” (Streiner & Norman, 1995, p. 70). The purpose was to afford

therapists an opportunity to provide ‘yes’ responses to the emotional intelligence and psychological mindedness items, which I thought would be better known concepts than alexithymia. In effect, the aim was to cushion a possible negative response regarding alexithymia between two positive responses (Streiner & Norman, 1995). If therapists had not heard of alexithymia, the interview was concluded at the end of that set of questions. The participant was thanked, and the true purpose of the study was explained.

If therapists answered ‘yes’ to having heard of alexithymia, *and* any of the other terms, Question 6 asked them to describe their understanding of each construct. This was to assess the accuracy of therapists’ knowledge about the constructs. Assessment of their understanding was based on established operational definitions of the terms.

Whilst emotional intelligence has been defined in a number of different ways (e.g., Taylor & Bagby, 2000), for the purposes of this study, it was defined as “the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth” (Mayer & Salovey, 1997, p. 10).

Alexithymia was defined as being “composed of the following salient features: (i) difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal; (ii) difficulty describing feelings to other people; (iii) constricted imaginal processes, as evidenced by a paucity of fantasies; and (iv) a stimulus-bound, externally oriented cognitive style” (Bagby & Taylor, 1997, p. 29).

Psychological mindedness was defined as “a person’s ability to see relationships among thoughts, feelings, and actions, with the goal of learning the meanings and causes of his experience and behavior” (Appelbaum, 1973, p. 36).

Based on these definitions, ratings were constructed and assigned to categories of ‘no understanding’, ‘minimal understanding’, ‘moderate understanding’, and ‘comprehensive understanding’ of the constructs.

In Question 7, if therapists had heard of the term ‘alexithymia’ and/or had knowledge of the meaning of the construct, they were asked the source of their knowledge. Question 8 related to assessment of their clients for high levels of alexithymia. If assessment occurred, Question 9 sought to know how this was achieved. In Question 10, therapists who had knowledge of alexithymia were asked for their views on the impact that a high level of

alexithymia has on couples' therapy progress. After this final question, therapists were thanked, and the true purpose of the study explained.

Procedure

Sampling Method

When therapists were initially approached regarding referral of their couple clients to Study 2, they were also advised that a therapist interview study would take place once the data collection period for that study had ended. Therapists were asked if they would like to be contacted for participation in the third study. Therefore, the recruitment procedure was based on the previously noted snowball technique. The sample in the interview study included privately practising therapists, and organisation-based clinicians who had attended previous clinical staff meetings to learn about the research. At the initial recruitment point, the contact details were noted of therapists expressing an interest in participating in an interview. They were then re-contacted to arrange a suitable time to be interviewed.

Recruitment of the Therapists

When initially asking therapists about taking part in the interview, ethical considerations were addressed by providing information about the voluntary nature of participation, confidentiality of participation and responses, anonymity when reporting the findings, and the freedom to withdraw at any point (Streiner & Norman, 1995). Therapists were also advised that the interview would take approximately 30 minutes of their time. Regarding the aspect of informed consent, therapists were advised that the study was about "clinicians' views on emotion-related concepts, and their observations of these in their clients". Phrasing the study in this way was necessary because of the time lapse between the initial recruitment period for the clinical couples and the interview, and I did not want to alert therapists to the alexithymia term and meaning. Therefore, as with the clinical couple study, whilst no extreme or harmful deception about the study took place, the true intention of the interview was somewhat disguised (Streiner & Norman, 1995).

When therapists were contacted to arrange a convenient interview time, eligibility screening occurred regarding their therapeutic experience of working with individuals and couples. Eligible therapists were given the option of completing the interview via telephone or face-to-face. When arranging a time for the interview, therapists were also asked how they felt about their comments being recorded. Three of the participants who were to be

interviewed by telephone stated that they did not feel comfortable with this occurring. Therefore, to maintain as much protocol standardisation as possible, I noted down each participant's responses on an interview sheet. With the qualitative data provided, I reflected therapists' comments back to them until they were satisfied with a concise statement that accurately captured their views.

Of the final sample of 61 participating therapists, 16 chose to take part by telephone and 45 elected to meet personally. With the 45 face-to-face meetings, 43 were conducted at the therapist's place of business and two at each therapist's home. As with the recruitment meetings for Study 2, each personal interview took place at a time that was most convenient for the therapist. This meant that, again, many of the interviews were held in the evening. Therefore, as with the safety procedure detailed in Study 2, the same precautions were utilised to ensure my safety.

At the onset of the interviews, therapists were verbally reminded about the ethical parameters of participation. As noted above, therapists were advised of the true purpose of the study at the applicable interview completion point. An opportunity was provided to ask questions about the interview and/or the content. At the end of the meetings, therapists were thanked for their time and for taking part in the study.

To assist in replication of this kind of data collection, some details of my experiences with recruiting and interviewing the therapists are provided in the following section.

Recruitment and Interview Experience

The process of re-contacting the therapists regarding participation in an interview, arranging a meeting time, and then meeting with them to conduct the interview, was somewhat dissimilar to the experience of asking for their intermediary help in recruiting couple clients. Again, there was enthusiasm for the research, and all of the eligible practitioners readily consented to participation. However, I noticed that, compared to therapists' attitudes toward referring their clients to the research, they had a much more positive outlook toward taking part personally. This suggested that therapists may have felt more discomfort about being involved in third party referrals than had been expressed. Alternatively, it may have been because I was now familiar to them and therefore regarded as a colleague rather than a stranger who was conducting research. Of course, it may also have been a combination of both factors.

Furthermore, the interview meetings were of a relaxed nature, and the therapists were very welcoming. Many of the meetings extended well past the anticipated 30 minutes, and this was particularly the case with experienced clinicians who were in sole private practices or owners of large practices. The extended meeting times were due to discussions that occurred after the true nature of the research was revealed. Based on these, and the initial discussions held during recruitment of the clinical couples, it seemed apparent that therapists have a strong interest in emotion, and the difficulties that their clients experience when they are deficient in this area. A number of therapists expressed their disappointment regarding a lack of clinical research on emotion being conducted in Australia, and were pleased to be involved in this project. Overall, the therapist interviews were an enjoyable and rewarding experience.

In the next section, the data file preparation, data entry, and analyses are presented. Prior to the data entry and analysis, the data file required preparation to account for the different levels of data that had been collected.

Data File Preparation

Preparation of the data file involved accounting for frequency, categorical, and ordinal data through assigning codes to allow for nonparametric analyses. The demographic information of therapist gender was coded 0 for 'female' and 1 for 'male' therapists. Therapists' primary qualifications were initially assigned codes 1 through 10 to account for all of the categories; however, to allow for comparative analyses between qualifications, the categories were collapsed to represent the three primary qualification groups of 'other' therapists – coded 0, 'clinical psychologists' – coded 1, and 'counselling psychologists' – coded 2. Furthermore, to enable post-hoc pairwise analyses, categories were created to represent three combinations of those groups. The qualification combinations included three dichotomous variables, with the categories of: (1) 'other' and 'clinical psychologists', (2) 'clinical psychologists' and 'counselling psychologists', and (3) 'other' and 'counselling psychologists'. Responses to the third demographic question regarding years of practise duration were entered as raw scores.

For the clinically-based interview questions, responses to Question 1, pertaining to therapists' observations of the characteristics, were ascribed the same codes as the rating scale from which the therapists had responded (that is, 1 for 'almost never', 2 for 'sometimes', 3 for 'often', and 4 for 'nearly always').

For Question 2 regarding the percentage of clients in which the characteristics are observed, the raw score percentages were entered.

For Question 3 regarding whether males, females, or equally males and females are more likely to have the characteristics, ‘males’ were coded 1, ‘females’ coded 2, and ‘equally males and females’ was coded 3.

With responses to Question 4 of ‘how often’ noticeable differences in the characteristics are observed in couple clients, the coding was again rated 1 through 4.

For Questions 5 (a, b, and c), regarding hearing of the terms emotional intelligence, alexithymia, and psychological mindedness, ‘no’ responses were coded 0 and ‘yes’ responses were coded 1.

The Question 6 (a, b, and c) components of understanding the three constructs were categorised and coded as 1 = ‘no understanding’, 2 = ‘minimal understanding’, 3 = ‘moderate understanding’, and 4 = ‘comprehensive understanding’. These codes were based on subjectively examining participants’ given meanings and matching those against the formal definitions of the constructs. The accuracy of my ratings was ensured through independent examination by an experienced clinical psychologist, and a researcher with a PhD in psychology. Subsequent discussions led to minor changes in therapists’ scores.

Question 7 related to how therapists had learned of alexithymia. The sources were coded as 1 = ‘don’t know’, 2 = ‘readings’, 3 = ‘colleague’, 4 = ‘training’, and 5 = ‘two or more sources’.

For Question 8 concerning assessment of clients for alexithymia, ‘no’ was coded 0 and ‘yes’ was coded 1.

For Question 9 pertaining to method of assessment, responses were coded 1 for ‘not formally’, 2 for using ‘the TAS-20’ measure, and 3 for ‘other’.

Responses to Question 10 on the impact of high alexithymia on the progress of couple therapy were qualitative in nature. During the interviews, participants’ comments were noted in verbatim form, and then condensed to concise statements through discussion with the therapist. Final statements were then reflected back to ensure the accuracy of the notations. These statements are included in the results, which are presented in the next section following the data analyses.

Data Analysis

Data were analysed using SPSS Version 20. Quantitative data were analysed using frequencies, chi-square tests (frequency and cross tabulation), Kruskal-Wallis ANOVA independent samples tests, and/or Mann-Whitney *U* tests (Field, 2009). Responses to Question 10, reflecting qualitative information, were examined manually.

The statistical assumptions of chi-square testing require that the data are in the form of counts (which may be frequency, proportion, probability or percentage data), are independent (each cell having only one observation from the same person), and have expected frequencies greater than five in each cell. Where the expected frequencies were all greater than 5, the Pearson chi-square value is reported; where the cells had expected frequencies that were less than 5, the significance of the result is based on the Fisher's exact test (Field, 2009). In SPSS, the Fisher's exact test does not provide a value statistic in 2 x 2 tables, and therefore, for these tables, the *p* value only is reported. For analysis of questions with ordinal data that had expected frequencies too small for chi-square tests, Kruskal-Wallis tests were utilised.

The Kruskal-Wallis *H* test is the nonparametric equivalent of a one-way ANOVA. It compares ranks rather than raw scores from two or more independent groups. If an overall significant finding occurs (i.e., $p < .05$), post-hoc pairwise comparisons can be evaluated with Mann-Whitney *U* tests (Field, 2009).

The Mann-Whitney *U* test is a nonparametric equivalent of an independent *t* test and two-group ANOVA. It also compares ranks, provides a correction for ties, and gives statistics of mean rankings, *U*, *z*, and *p* values. To avoid inflation of the Type 1 error rate when conducting post-hoc pairwise comparisons across the three qualification groups, a Bonferroni correction was applied, which resulted in an alpha level of .0167 (Field, 2009).

All of the interview questions were examined. The findings for the demographic questions on therapist gender, primary qualification, and practise duration appear above in the Participant Characteristics section.

As noted, the research questions relate directly to the interview questions and are in the same order; however, the research questions are phrased more formally. To assist with clarifying the meanings of the findings, the interview questions are specified in the results. The summary that follows the results section relates the findings to the research questions. The results are presented in the next section.

Results

Interview Question 1.

In your clinical practise, how often would you see the following in your individual clients?

- (1) Having feelings they can't quite identify (DIF);
- (2) Showing difficulty finding the right words for their feelings (DDF);
- (3) Showing no examination of feelings when solving personal problems (EOT);
- (4) Showing limited reflection of their inner processes;
- (5) Lacking in emotional insight.

As shown in Table 74, the greatest frequency observed in clients for DIF, DDF, Limited Inner Reflection, and Lack of Emotional Insight was 'often'; for EOT, it was 'sometimes'. Kruskal-Wallis H tests indicated that there was no significant therapist gender difference for any of the variables: DIF, $H(1, N = 61) = .221$, DDF, $H(1, N = 61) = 1.115$, EOT, $H(1, N = 61) = .049$, Limited Inner Reflection, $H(1, N = 61) = 1.527$, or Lack of Emotional Insight, $H(1, N = 61) = .055$, $ps > .05$.

There were no significant differences between the three therapist qualification groups for DIF, $H(2, N = 61) = 1.349$, DDF, $H(2, N = 61) = .640$, EOT, $H(2, N = 61) = .721$, or Lack of Emotional Insight, $H(2, N = 61) = 3.324$, $ps > .05$. However, there was a significant difference between the therapist qualification groups for Limited Inner Reflection, $H(2, N = 61) = 7.548$, $p = .021$.

Mann-Whitney post-hoc tests examined this finding. At the Bonferroni corrected significance level of .0167, there was no significant difference between the 'clinical psychologist' ($M = 16.95$) and 'counselling psychologist' ($M = 20.67$) groups, $U = 125$, $z = 1.161$, $p = .265$, or between the 'counselling psychologist' ($M = 17.83$) and 'other' ($M = 22.10$) groups, $U = 147$, $z = 1.243$, $p = .226$. However, the 'other' qualification group had significantly greater overall rankings ($M = 28.00$) than the 'clinical psychologist' group ($M = 18.14$), $U = 150$, $z = 2.767$, $p = .006$.

Table 74

Therapists' Frequencies of Observing Alexithymia Features in Clients, and Gender and Qualification Group Differences (N = 61)

Variable	Almost Never		Sometimes		Often		Nearly Always		Gender	Qual Groups
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	K-Wallis <i>p</i>	K-Wallis <i>p</i>
DIF			13	21.3	37	60.7	11	18.0	.675	.559
DDF	1	1.6	16	26.2	35	57.4	9	14.9	.285	.738
EOT	6	9.8	27	44.3	22	36.1	6	9.8	.829	.701
Limited Reflection	1	1.6	21	34.4	32	52.5	7	11.5	.233	.021
Lack Insight	2	3.3	24	39.3	30	49.2	5	8.2	.829	.194

Note. DIF = difficulty identifying feelings, DDF = difficulty describing feelings, EOT = externally oriented thinking, Limited Reflection = limited reflection of inner processes, Lack Insight = lacking emotional insight. Qual Groups = qualification groups of 'other', 'clinical psychologist', and 'counselling psychologist'. K-Wallis = Kruskal-Wallis (independent samples test). Empty cells denote no responses.

Interview Question 2.

If most of these features were to occur within an individual, in what percentage of your clients would you see this?

Responses to this item ranged from 0% to 100% of individual clients in whom therapists observed the features. The greatest numbers of therapists to endorse the same client percentages were 7 for 30% of clients, and 7 for 80% of clients (see Table 75).

There was no therapist gender difference in the reported percentages of clients with the features, $H(1, N = 61) = 1.384, p = .239$. There was a significant difference between the qualification groups, $H(2, N = 61) = 9.516, p = .009$.

Mann-Whitney tests indicated that there were no differences between the 'clinical psychologist' ($M = 16.05$) and 'counselling psychologist' ($M = 21.93$) groups, $U = 106, z = 1.658, p = .099$, or between the 'counselling psychologist' ($M = 17.07$) and 'other' ($M = 22.56$) groups, $U = 136, z = 1.445, p = .152$. The 'other' group ($M = 28.82$) had significantly greater overall mean rankings of the percentages than the 'clinical psychologist' group ($M = 17.17$), $U = 129, z = 2.941, p = .003$.

Table 75

Raw Scores, Therapist Frequency, and Percentages of Clients Observed with the Alexithymia Features (N = 61)

Percentage of Clients	Therapist Frequency	Response %	Percentage of Clients	Therapist Frequency	Response %
0	1	0.0	50	3	4.9
3	1	1.6	55	1	1.6
5	2	3.3	60	6	9.8
10	4	6.6	65	1	1.6
15	4	6.6	70	3	4.9
20	3	4.9	75	5	8.2
25	1	1.6	80	7	11.5
30	7	11.5	85	2	3.3
35	2	3.3	90	3	4.9
40	2	3.3	100	2	3.3
45	1	1.6			

Interview Question 3.

In your experience, are these features more likely to be seen in males, females, or equally in both genders?

As a group, there were 47 (77%) therapists who said that the constellation of emotion-related characteristics was more likely to be seen in ‘males’, 1 (1.6%) therapist said ‘females’, 12 (19.7%) therapists said ‘equally males and females’, and 1 (1.6%) therapist had a ‘could not state’ response.

As seen in Table 76, the greater proportion of male and female therapists observed the characteristics in ‘males’, and this was followed by the category of ‘equally males and females’. Chi-square tests for therapist gender differences showed that five cells had an expected frequency of less than five, and for the qualification groups there were nine cells with an expected frequency less than five. Therefore, the Fisher’s exact test statistic is reported for both analyses. There was no significant therapist gender difference between the observations, $\chi^2(3, N = 61) = 2.056, p = .768$, and no differences across therapists’ qualifications, $\chi^2(6, N = 61) = 6.595, p = .232$.

Table 76

Therapists' Observations of the most Prevalent Gender with the Alexithymia Features (N = 61)

Variable	Male Therapists (n = 25)		Female Therapists (n = 36)	
	n	%	n	%
Males	19	76.0	28	77.8
Females	0	0.0	1	2.8
Equally Males + Females	5	20.0	7	19.4
Could not state	1	4.0		

Note. Empty cells denote no responses.

Interview Question 4.

In thinking about your clinical work with couples, how often would you see couples in whom there are *noticeable differences* in the features between partners?

Total therapist group responses were 1 (1.6%) for 'almost never', 18 (29.5%) 'sometimes', 29 (47.5%) 'often', and 13 (21.3%) for 'nearly always'. As seen in Table 77, both male and female therapists reported that the most prevalent occurrence of couple partners' noticeable differences in the alexithymia features was 'often'. There was no significant difference between the therapist genders, $H(1, N = 61) = 2.610, p = .118$, and no differences across therapists' qualification groups, $H(2, N = 61) = 0.522, p = .769$.

Table 77

Therapists' Observations of Partners' Noticeable Differences in the Alexithymia Features (N = 61)

Variable	Male Therapists (n = 25)		Female Therapists (n = 36)	
	n	%	n	%
Almost Never	0	0.0	1	2.8
Sometimes	6	24.0	12	33.3
Often	11	44.0	18	50.0
Nearly Always	8	32.0	5	13.9

In the next set of analyses, the focus was directed toward the therapists' awareness of the alexithymia term, understanding of the construct, knowledge sources, and assessment of high levels of alexithymia in their clients.

The first interview question (5b) about awareness of the alexithymia term was placed between asking therapists about their awareness of the terms emotional intelligence (EI) and psychological mindedness (PM). As noted, these were essentially two distractor items. For consistency, the findings are presented in the order in which the questions were asked.

Interview Question 5a.

Have you heard of the term 'Emotional Intelligence'?

As shown in Table 78, for the total group, 60 (98.4%) therapists had heard of EI and one (1.6%) therapist had not heard the term. Not surprisingly, a chi-square frequency test indicated a significant difference between the two response groups, $\chi^2(1, N = 61) = 57.066, p < .001$.

With regard to gender, all of the male therapists (25), and 35 (of 36) female therapists, had heard of emotional intelligence. A chi-square test indicated there was no significant difference between the proportions of 'yes' and 'no' responses for male and female therapists, Fisher's exact test $\chi^2(1, N = 61), p = 1.00$.

A chi-square test indicated there was no significant difference between the proportions of 'yes' or 'no' responses for the qualification groups, Fisher's exact test $\chi^2(2, N = 61) = 1.502, p = 1.00$ (see Table 79).

Interview Question 5b.

Have you heard of the term 'Alexithymia'?

For the total group, 21 (34.4%) therapists had heard of alexithymia and 40 (65.6%) therapists had not heard the term, with a chi-square frequency test indicating a significant difference between the two response groups, $\chi^2(1, N = 61) = 5.918, p < .015$ (see Table 78).

With regard to gender, 9 (36.0%) male therapists, and 12 (33.3%) female therapists had heard of alexithymia. A chi-square test indicated there was no significant difference between the proportions of therapists responses, $\chi^2(1, N = 61) = 0.046, p = .829$.

A chi-square test indicated there was a significant difference between the proportions of 'yes' and 'no' responses across the qualification groups, $\chi^2(2, N = 61) = 19.453, p < .001$.

Further testing indicated there was no significant difference between ‘other’ therapists and ‘counselling psychologists’, Fisher’s exact test $\chi^2(1, N = 40), p = 1.00$. However, there was a significant difference between ‘clinical psychologists’ and ‘other’ therapists, $\chi^2(1, N = 46) = 14.463, p < .001$, with more ‘clinical psychologists’ than ‘other’ therapists having heard of alexithymia. There was also a significant difference between ‘clinical psychologists’ and ‘counselling psychologists’, $\chi^2(1, N = 36) = 11.849, p = .001$, with more ‘clinical psychologists’ than ‘counselling psychologists’ having heard of alexithymia (see Table 80).

Interview Question 5c.

Have you heard of the term ‘Psychological Mindedness’?

As seen in Table 78, for the total group, 36 (59.0%) therapists had heard of psychological mindedness and 25 (41.0%) had not heard the term, with a chi-square frequency test indicating no significant difference between the two response groups, $\chi^2(1, N = 61) = 1.984, p = .159$.

For gender, 17 (68.0%) male therapists, and 19 (52.8%) female therapists had heard of psychological mindedness. A chi-square test indicated there was no significant difference between the proportions of ‘yes’ responses and ‘no’ responses for male and female therapists, $\chi^2(1, N = 61) = 1.413, p = .234$.

A chi-square test indicated there was a significant difference between the proportions of ‘yes’ responses and ‘no’ responses across the qualification groups, $\chi^2(2, N = 61) = 10.016, p = .007$. Further testing indicated there was no significant difference between ‘clinical psychologists’ and ‘counselling psychologists’, Fisher’s exact test $\chi^2(1, N = 36) p = .443$, or between ‘other’ therapists and ‘counselling psychologists’, $\chi^2(1, N = 40) = 3.536, p = .060$. There was a significant difference between ‘clinical psychologists’ and ‘other’ therapists, $\chi^2(1, N = 46) = 9.385, p = .002$, with more ‘clinical psychologists’ than ‘other’ therapists having heard of psychological mindedness (see Table 81).

Table 78

Therapists' Awareness of the Terms 'Emotional Intelligence', 'Alexithymia', and 'Psychological Mindedness' (N = 61)

Variable	Male Therapists				Female Therapists			
	Yes	%	No	%	Yes	%	No	%
Emotional Intelligence	25	100	0	0	35	97	1	3
Alexithymia	9	36	16	64	12	33	24	67
Psychological Mindedness	17	68	8	32	19	53	17	47

Note. Total of male therapists = 25 and total of female therapists = 36.

Table 79

Qualification Groups and Awareness of the Term 'Emotional Intelligence' (N = 61)

Variable	Yes		No	
	<i>n</i>	%	<i>n</i>	%
Other (<i>n</i> = 25)	24	96.0	1	4.0
Clinical Psychologists (<i>n</i> = 21)	21	100.0	0	0.0
Counselling Psychologists (<i>n</i> = 15)	15	100.0	0	0.0

Table 80

Qualification Groups and Awareness of the Term 'Alexithymia' (N = 61)

Variable	Yes		No	
	<i>n</i>	%	<i>n</i>	%
Other (<i>n</i> = 25)	4	16.0	21	84.0
Clinical Psychologists (<i>n</i> = 21)	15	71.4	6	28.6
Counselling Psychologists (<i>n</i> = 15)	2	13.3	13	86.7

Table 81***Qualification Groups and Awareness of the Term ‘Psychological Mindedness’ (N = 61)***

Variable	Yes		No	
	<i>n</i>	%	<i>n</i>	%
Other (<i>n</i> = 25)	9	36.0	16	64.0
Clinical Psychologists (<i>n</i> = 21)	17	81.0	4	19.0
Counselling Psychologists (<i>n</i> = 15)	10	66.7	5	33.3

Interview Question 6a.**What is your understanding of emotional intelligence?**

Of the 60 therapists who had heard of the term emotional intelligence, explanations indicated that 4 (6.7%) had ‘no understanding’, 19 (31.7%) had ‘minimal understanding’, 18 (30.0%) had ‘moderate understanding’, and 19 (31.7%) had ‘comprehensive understanding’ of the construct.

Kruskal-Wallis tests indicated there was no significant difference between male and female therapists’ understanding of EI, $H(1, N = 60) = 0.001, p = 1.000$, and no differences between the qualification groups, $H(2, N = 60) = 2.744, p = 0.257$ (see Table 82 for responses by gender and Table 83 for responses across qualification groups).

Table 82***Therapists’ Understanding of the emotional intelligence Construct (N = 60)***

Variable	Male Therapists (<i>n</i> = 25)		Female Therapists (<i>n</i> = 35)	
	<i>n</i>	%	<i>n</i>	%
None	1	4.0	3	8.6
Minimal	8	32.0	11	31.4
Moderate	9	36.0	9	25.7
Comprehensive	7	28.0	12	34.3

Table 83***Qualification Groups and Understanding of the Emotional Intelligence Construct (N = 60)***

Variable	None		Minimal		Moderate		Comprehensive	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Other	2	8.3	10	41.7	7	29.2	5	20.8
Clinical Psychologists	2	9.5	6	28.6	3	14.3	10	47.6
Counselling Psychologists	0	0.0	3	20.0	8	53.3	4	26.7

Note. *ns* = 24 for ‘other’, 21 for ‘clinical psychology’, 15 for ‘counselling psychology’.

Interview Question 6b.**What is your understanding of alexithymia?**

Of the 21 therapists who had heard the term alexithymia, explanations indicated that 7 (33.3%) had ‘no understanding’, 5 (23.8%) had ‘minimal understanding’, 8 (38.1%) had ‘moderate understanding’, and 1 (4.8%) had ‘comprehensive understanding’ of the construct.

Kruskal-Wallis tests indicated there was no significant difference between male and female therapists’ understanding of alexithymia, $H(1, N = 21) = 0.069$, $p = 0.813$, and no differences between the qualification groups, $H(2, N = 21) = 4.607$, $p = 0.072$ (see Table 84 for responses by gender and Table 85 for responses by qualification groups).

Table 84***Therapists’ Understanding of the Alexithymia Construct (N = 21)***

Variable	Male Therapists (<i>n</i> = 9)		Female Therapists (<i>n</i> = 12)	
	<i>n</i>	%	<i>n</i>	%
None	3	33.3	4	33.3
Minimal	2	22.2	3	25.0
Moderate	3	33.3	5	41.7
Comprehensive	1	11.1	0	0.0

Table 85***Qualification Groups and Understanding of the Alexithymia Construct (N = 21)***

Variable	None		Minimal		Moderate		Comprehensive	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Other	3	75.0	1	25.0	0	0.0	0	0.0
Clinical Psychologists	3	20.0	4	26.7	7	46.7	1	6.7
Counselling Psychologists	1	50.0	0	0.0	1	50.0	0	0.0

Note. *ns* = 4 for ‘other’, 15 for ‘clinical psychologists’, 2 for ‘counselling psychologists’.

Interview Question 6c.**What is your understanding of psychological mindedness?**

Although 25 therapists had never heard the term psychological mindedness, 11 of these therapists offered explanations. Therefore, data were obtained from 36 therapists who had heard the term, and 11 who had not heard the term.

Explanations indicated that 4 (8.5%) had ‘no understanding’, 21 (44.7%) had ‘minimal understanding’, 16 (34.0%) had ‘moderate understanding’, and 6 (12.8%) had ‘comprehensive understanding’ of the construct.

Kruskal-Wallis tests indicated there was no significant difference between male and female therapists’ understanding of PM, $H(1, N = 47) = 0.307, p = 0.605$, and no differences between the qualification groups, $H(2, N = 47) = 2.844, p = 0.244$ (see Table 86 for responses by gender and Table 87 for responses by qualification groups).

Table 86***Therapists’ Understanding of the Psychological Mindedness Construct (N = 47)***

Variable	Male Therapists (<i>n</i> = 20)		Female Therapists (<i>n</i> = 27)	
	<i>n</i>	%	<i>n</i>	%
None	2	10.0	2	7.4
Minimal	8	40.0	13	48.1
Moderate	6	30.0	10	37.0
Comprehensive	4	20.0	2	7.4

Table 87***Qualification Groups and Understanding of the Psychological Mindedness Construct
(N = 47)***

Variable	None		Minimal		Moderate		Comprehensive	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Other	2	15.4	8	61.5	1	7.7	2	15.4
Clinical Psychologists	1	5.0	7	35.0	10	50.0	2	10.0
Counselling Psychologists	1	7.1	6	42.9	5	35.7	2	14.3

Note. *Ns* = 13 for ‘other’, 20 for ‘clinical psychologists’, 14 for ‘counselling psychologists’.

Interview Question 7.**How did you come to know about alexithymia?**

Of the 21 therapists who had heard of the term alexithymia, their sources of knowledge were 1 (4.8%) ‘don’t know’, 10 (47.6%) ‘readings’, 1 (4.7%) ‘training’, and 9 (42.8%) ‘two or more sources’. Within the ‘two or more sources’ category, one was through a colleague and university seminar, three were through a colleague and readings, one was through a university seminar and readings, and one was through readings and training.

Interview Question 8.**Do you specifically assess clients for the presence of high alexithymia?**

There were 14 therapists who had heard of the term alexithymia and had some understanding of the construct. Of these therapists, 2 (14.3%) assessed clients for high alexithymia, and for 12 (85.7%), no assessment took place.

Interview Question 9.**If ‘yes’ to question 8, how do you do this?**

Of the two therapists who reported assessing clients for high alexithymia, both responses were ‘not formally’.

Interview Question 10.

What impact, if any, does the presence of high alexithymia have on couples' therapy progress?

Of the therapists who had heard of the term alexithymia and had some understanding of the construct, 12 responded to this question with the following comments:

- T2:** "It impedes progress quite considerably."
- T3:** "You're looking at slow progress and very long-term therapy."
- T6:** "It has a big effect."
"It's difficult, slow, and there are small gains."
"They are hard work."
- T9:** "It stalls therapy and it may be necessary to work on the person with high alexithymia on their own."
- T10:** "It's very significant."
"It's the third leg on the stool."
"Fundamental to the therapy."
- T16:** "It has a big effect."
"Can cause progress to be extremely slow, and treatment will be longer and possibly not as effective."
- T26:** "It makes it quite difficult."
"Slows it down."
- T27:** "You have to increase safety."
"Do deeper work at the childhood level."
"Increase empathy from the partner to decrease judgement."
"Simple acknowledgment [of the problem] helps."
"Decrease the [more expressive] partner's reactivity and increase respect."
- T30:** "It's negative."
"Makes progress hard and inhibits the pace."
- T39:** "It has a significant effect."
"It would also depend on the therapeutic model used and the clients' goal."
- T44:** "It makes it slow."
"It's crucial to have understanding and patience."
- T48:** "It depends on my approach."
"If extreme alexithymia, it may take more time." "I have to be more patient."
"It depends on the couple's motivation to work on the difficulties."

The therapists' statements indicate that the presence of high alexithymia within couples has a number of influences on their therapy. In order of the most frequently cited views, these included:

1. **Impedes and slows therapeutic progress** (Ts 2, 3, 6, 9, 16, 26, 30, 44, 48), **which results in a longer therapy duration:** (Ts 3, 16, 44, 48);
2. **Has a significant (negative) impact on progress:** (Ts 6, 10, 16, 30, 39);
3. **The therapeutic approach, and treatment modification is important:** (Ts 9, 27, 39, 48);
4. **There may be smaller gains made in therapy:** (Ts 6, 16);
5. **Difficult for the therapist:** (Ts 6, 26);
6. **The couple's motivation and goals are important:** (Ts 39, 48).
7. **It is fundamental to the therapy:** (T10);
8. **The therapist may need to work individually with the highly alexithymic partner:** (T9).

The findings for Question 10 lend support for the general literature citing treatment difficulties with highly alexithymic clients (e.g., Ogrodniczuk et al., 2011; Taylor, 1997b), and in particular, the experiences noted by Swiller (1988) regarding couple therapy.

The next section provides summaries of the findings as they relate to the examined research questions and secondary questions pertaining to alexithymia and its emotion-related features. Given that the focus is on alexithymia, the findings for emotional intelligence and psychological mindedness will not be summarised.

Summary

Study 3 sampled 61 practitioners whose clinical work included therapy with couples. The therapists comprised 25 males (41%) and 36 females (59%). The majority of the sample reported having generalist or postgraduate qualifications in psychology, and years of clinical experience ranging from 2 to 36 years.

Research Question 1a: Independent of awareness of alexithymia, do therapists recognise in their clients the emotion-related features of alexithymia?

Independent of therapists' knowledge of alexithymia, the majority were aware of the associated emotional difficulties in their clients. For recognition of DIF, DDF, Limited Inner Reflection and Lack of Emotional Insight, the most frequent rating was 'often'. For EOT, it was 'sometimes'.

Research Question 1b: Is recognition of the features associated with therapist gender?

There was no significant therapist gender difference in the ratings.

Research Question 1c: Is recognition of the features associated with therapists' qualification?

For Limited Inner Reflection, therapists in the 'other' qualification group had significantly higher rankings than the 'clinical psychology' group. There were no other qualification group differences.

Secondary Questions:

1.1 Occurring together within an individual, in what percentage of clients would these features be observed?

The most frequently occurring percentages were 7 therapists citing 30% and 7 therapists citing 80% of clients. The overall responses ranged from 0% to 100%.

1.2 Does percentage of clients observed differ across therapist gender?

There was no significant therapist gender difference.

1.3 Does percentage of clients observed differ across therapist qualification?

Therapists in the 'other' qualification group had significantly higher rankings than the 'clinical psychology' group. There were no other qualification group differences.

1.4 Are the features more likely to be seen in male clients, female clients, or equally in both genders?

The greater proportion of therapists (76% of males and 77.8% of females) observed the features in male clients, followed by equally in male and female clients.

1.5 Are observations of gender prevalence associated with therapist gender?

There was no significant therapist gender difference in the observations.

1.6 Are observations of gender prevalence associated with therapist qualification?

There were no significant differences in the observations across therapist qualifications.

Summary

Research Question 2a: Do therapists observe noticeable differences between couple partners in the emotion-related features of alexithymia?

Therapists did observe noticeable differences between couple partners. For 29.5% of therapists, this was ‘sometimes’, for 47.5% it was ‘often’, and for 21.3% it was ‘nearly always’.

Research Question 2b: Are observations of partner differences associated with therapist gender?

There was no significant difference in the observations between male and female therapists.

Research Question 2c: Are observations of partner differences associated with therapist qualification?

There were no significant differences in observations between the qualification groups.

Research Question 3a: Have therapists heard of the term ‘alexithymia’?

For the total therapist group, 21 (34.4%) had heard of alexithymia and 40 (65.6%) had not.

Research Question 3b: Is therapist gender associated with awareness of the alexithymia term?

There was no therapist gender difference associated with awareness of the alexithymia term.

Research Question 3c: Is therapist qualification associated with awareness of the alexithymia term?

The ‘clinical psychologist’ group had significantly greater awareness of the alexithymia term than did the ‘counselling psychologist’ and ‘other’ therapist groups. There was no significant difference between the ‘counselling psychologist’ and ‘other’ therapist groups.

Research Question 4a: What is therapists’ understanding of the alexithymia construct?

Of the 21 therapists who had heard of the term, 7 (33.3%) had ‘no understanding’, 5 (23.8%) had ‘minimal understanding’, 8 (38.1%) had ‘moderate understanding’ and 1 (4.8%) had ‘comprehensive understanding’.

Research Question 4b: Is therapist gender associated with understanding of the alexithymia construct?

There was no therapist gender difference associated with understanding of alexithymia.

Research Question 4c: Is therapist qualification associated with understanding of the alexithymia construct?

There were no qualification group differences associated with understanding of alexithymia.

Summary

Secondary Questions:

4.1.7 What is the source of therapists' knowledge about alexithymia?

Of the 21 therapists who had heard of the alexithymia term, 1 therapist did not know the information source, 10 (47.6%) cited their source of knowledge as 'readings', 1 (4.7%) as 'training', and 9 (42.8%) as 'two or more sources'. When examining the 'two or more sources' category, 5 therapists had gained some of their knowledge about alexithymia through 'readings'. Thus, 15 of the 21 therapists had learned of alexithymia through the literature.

4.1.8 Do therapists specifically assess clients for high alexithymia?

Of the 14 therapists who had heard of alexithymia and had some understanding of the construct, 2 (14.3%) assessed clients for high alexithymia. No assessment occurred with 12 (85.7%) therapists.

4.1.9 How do therapists assess high alexithymia?

The two therapists who assessed clients for high alexithymia stated that this was 'not formally'.

Research Question 5. What impact, if any, does the presence of high alexithymia have on couples' therapy progress?

Of the therapists who had some understanding of alexithymia, 12 responded to this question.

Their responses indicated that the presence of alexithymia has the following therapeutic effects:

- It impedes and slows progress, resulting in longer term therapy;
- It has a significant (negative) impact on progress;
- The therapeutic approach, and treatment modification, are important;
- Smaller therapeutic gains may be made;
- It is difficult for the therapist;
- The couple's motivation and goals are important;
- It is fundamental to the therapy;
- The therapist may need to work individually with the highly alexithymic partner.

The third study revealed new information about a range of aspects regarding therapists' awareness of alexithymia. The findings support the suggestion of Taylor and Bagby (2013) that, independent of awareness of the construct, therapists' clinical experience enables them to recognise the alexithymia emotion-related *features* in their clients. As with much of the previous alexithymia literature on individuals, and the research with couples (e.g., Cordova et al., 2005; Eid & Boucher, 2012; Eizaguirre, 2002), the majority of the therapists in this study observed the features in men more often than in women; however, in contrast to prior findings, a number did report that they occur equally in men and women.

The therapists' observations also supported the findings of Swiller (1988), and Yelsma and Marrow (2003), regarding partner discrepancies in the alexithymia features. Furthermore, an interesting point is that the therapists here have corroborated the findings from the first two studies in the current research regarding such partner differences. Importantly, given that the sample of therapists was drawn from those who had referred their couple clients for Study 2, this study has provided a unique form of cross-validation for the partner differences.

With regard to therapists' awareness of alexithymia, there was partial support for Bagby et al. (1991a). Whilst the majority of therapists had not heard of alexithymia, clinical psychologists had significantly more awareness of the term than the 'counselling psychologist' and 'other' therapist groups. Additionally, across the clinicians who were aware of the term, almost 67% had some understanding of the construct.

The study minimally supported Bagby et al. (1991b) regarding the construct not being well known within "the psychological and behavioral medicine literature" (239). Regarding the sources of therapists' alexithymia knowledge, 47.6% had gained their information solely from 'readings'; however 42.8% of the therapists cited 'two or more sources'. Within the 'two or more sources' category, 5 therapists had gained their knowledge of alexithymia through 'readings'. This resulted in a total of 15 out of 21 therapists (71.4%) who knew of alexithymia through the literature.

Finally, the therapists experiences of the impact of alexithymia on couple therapy progress substantiated longstanding views regarding the challenging nature of treatment with highly alexithymic individuals, the difficulties that can occur, and the need for modifications to be made to therapeutic approaches and interventions (e.g., Krystal, 1982/83; Ogrodniczuk, 2011; Swiller, 1988; Taylor, 1977, 1984b, 1997b; Taylor & Bagby, 2013). Having now concluded the two studies on alexithymia and couples, and the third study with couple therapists, the findings are discussed in the following chapter.

CHAPTER SEVEN

Discussion and Conclusions

The overarching objectives of this project were to extend the previous research investigating alexithymia and couples' relationships, and to introduce a clinical focus to this area. In doing so, the aims were to test the relevance and feasibility of utilising empathy and emotional connection behaviours as therapeutic interventions to assist alexithymic-discrepant couples, and to assess whether relationship therapists' knowledge of alexithymia is an unrecognised source of influence in couple therapy outcomes. This was achieved through a triadic approach whereby three separate yet related studies took place.

Despite an extensive alexithymia literature, there has been comparatively little research directed toward the influence of alexithymia on couples' relationships; to date, there appear to have been 12 studies examining this topic (i.e., Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012; Eizaguirre, 2002; Foran et al., 2012; Frye & Feistman, 2010; Frye-Cox & Hesse, 2013; Humphreys et al., 2009; Mirgain & Cordova, 2007; Pélusse et al., 2012; Wachs & Cordova, 2007; Yelsma & Marrow, 2003). These studies have provided valuable conceptual and theoretical knowledge regarding alexithymia and its personal and interpersonal influences, and they have established a sound platform from which further systematic enquiry can emerge.

However, as a body of research, a major limitation is that all of the previous relational studies have been conducted with couples from the general community. This has meant that the clinical field has continued to suffer from a lack of knowledge about the effects of alexithymia within couples who are having therapy for their relationship distress. Similarly, and surprisingly, there has been no prior examination of therapists' awareness and knowledge of alexithymia. These clinical perspectives were important to investigate because of the treatment difficulties shared by alexithymia (e.g., Freyberger et al., 1985; Sifneos, 1975; Swiller, 1988; Taylor, 1977, 1997b; Taylor & Bagby, 2013) and couple therapy (e.g., Bambling, 2007; Gottman, 1998, 1999), and the central role that clinicians have in therapeutic outcomes (Wampold, 2001, 2010).

In extending the previous findings, and addressing the clinical deficits, the outcome variables were chosen because they have been identified as important to both alexithymia and the quality of couples' relationships. Furthermore, although empathy provided and relationship dissatisfaction have been examined in association with alexithymia, this has not occurred with empathy received or emotional connection. Hence, these variables were investigated in a community sample of couples and a clinical sample of couples who were having relationship therapy. In expanding the clinical focus, an examination of therapists' knowledge of alexithymia was deemed fundamental to couples' treatment and outcomes.

To provide a clear reference point for the discussion and conclusions, a brief outline of the research is provided. The two couple studies investigated alexithymia as measured by the TAS-20 instrument (Bagby et al., 1994). Utilising all aspects of the TAS-20 provided information on total alexithymia, and the three component factors of difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking. These variables were examined in association with the outcome measures of empathy provided, empathy received, indicators of emotional connection (i.e., turn toward, turn away, turn against, positive emotional connection), and relationship dissatisfaction. The study with therapists utilised an alexithymia-focused interview instrument that was developed for this research.

Study 1, with 170 community couples, involved exploration of the data, evaluation of the personal, interpersonal, and mutual influences of alexithymia and the outcome variables, assessment of the effects of couple partners' alexithymia-related discrepancies on their outcomes, and testing of a possible model that could potentially provide guidance in the treatment of couples who are adversely affected by the alexithymia deficits.

Study 2 investigated 17 clinical couples who had recently entered relationship therapy. Although a more rigorous investigation was not possible due to the low sample size, valuable therapeutic information was gleaned through exploring the data, comparing the clinical and community couples on the alexithymia and outcome variables, and by examining whether the two groups differed on their alexithymia discrepancies.

Study 3 assessed therapists' clinical observations, knowledge, and therapeutic experiences, related to a range of important aspects associated with alexithymia.

Structure of the Discussion

The discussion is structured into sections, and the analytical strategies are utilised to anchor those sections. This structure is applied because each type of analysis reveals a different perspective that is associated with processes that can occur within, and between,

couple partners. Furthermore, the discussion utilises information gathered on the characteristics of the couple samples to provide context to the interpretations of the findings. The contextual information was obtained through the MSI-R (Snyder, 1997), which was employed in the research to measure relationship dissatisfaction.

Within the sections, a summary of the findings precedes the discussion, and for the community couples, this follows the presentation of their findings. For the clinical couples, the discussion is included in the therapeutic implications. The therapist study is the final study to be discussed. Following the studies, the research strengths and limitations, future directions, and the overall implications of the research are presented. The conclusions then highlight the main findings, and contain suggestions for future action. The thesis ends with final thoughts.

Because some readers may not be familiar with the acronyms that are often applied to the variables in this research (e.g., DIF for difficulty identifying feelings; EP for empathy provided), from this point forward, where clarity is improved, the variable names are distinguished from the rest of the text through capitalisation of their first letters.

The discussion begins with examining foundational information obtained from the two couple samples, which includes the presenting characteristics of the couples, their questionnaire response styles, and partner and relationship appraisals.

Characteristics of the Couples

Information was gathered about the general characteristics of the two couple groups, which serves as a base to the studies, and provides additional meaning to the findings that follow. This also enabled examination of fundamental similarities and differences between the community couples and the couples who had recently entered relationship therapy. Clinically, it may be of relevance for couple therapists to have evidence of the possible cohort of couples that may present for treatment.

Couples' Presenting Characteristics

It was found that, although the community and clinical couples were similar in age, ethnicity, education level, and marital status, the clinical couples were somewhat lower in occupation status, and were in relationships that were of a shorter duration. The striking difference between the two groups was the proportion of couples who had experienced multiple cohabiting relationships. Where 66% of community husbands and 66% of wives

were currently in their only marriages, this was the case for 10% of clinical husbands and 8% of clinical wives.

Couples' Response Styles

The couples' styles of responding to the questionnaires were examined, and although it is rare for this information to be reported, it does provide some insight into the bases of the partners' responses. It was found that the majority of community husbands (71%) and wives (69%) had answered the questions in a way that was consistent, careful, and reflective; however, a proportion of husbands (26%) and wives (29%) had responded in a less consistent manner, which suggests that they had mixed sentiments about specific areas in their relationships (e.g., Snyder, 1997).

Within the clinical couple sample, 47% of husbands, and 47% of wives, responded to the questions with consistency, care, and reflection, whereas 53% of both genders' responses indicate that they had mixed sentiments about their relationships.

Therefore, it seems that, compared to the community couples, a greater proportion of the clinical couples had less constancy in their responses, and greater indecision about their relationships.

Couples' Partner and Relationship Appraisals

With the couples' partner and relationship appraisals, approximately 21% of the community husbands and wives had a negative view of their spouses and relationships, which indicates that the partners were experiencing moderate levels of distress, and a failure to consider positive aspects in their partners and/or relationships (e.g., Snyder, 1997). For around 35% of community husbands and 30% of wives, their appraisals suggest positive idealisation or romanticism that is typical of happy, satisfied couples. However, high scores were found in a substantial proportion of community husbands (44%) and wives (49%), indicating that they had presented their relationships in a socially desirable direction with descriptions that were unrealistically positive (e.g., Snyder, 1997).

According to Snyder (1997), whilst high appraisal scores in community couples are not uncommon, they do "reflect a level of idealistic distortion that may leave a couple highly vulnerable to accumulated tensions that have gone unacknowledged" (p. 21). Snyder (1997) also stated, "couples in which both partners obtain high appraisal scores are unlikely to seek couples counselling except for purposes of relationship enrichment" (p. 21). From another perspective, however, although these partners' idealised distortions might suggest that their

views were greatly imbalanced, some authors have proposed that maintaining such idealisation may serve a positive function. In this, these kinds of appraisals can protect partners from being unduly affected by minor unavoidable difficulties that occur within couples' relationships (Murray, Holmes, & Griffin, 1996; O'Rourke & Cappeliez, 2005).

In contrast, the clinical couples' partner and relationship appraisals show that the majority of husbands (53%) and wives (71%) had a negatively biased view of their spouses and relationships. A smaller proportion of husbands (35%) and wives (29%) had views that were unrealistically positive, and 11% of the husbands were in the extreme range for unrealistically positive appraisals.

Therapeutic Implications – Couples' Presenting Characteristics

These findings provide evidence for clinicians that the presenting characteristics of many couples who attend for relationship therapy differ from those of couples who have not sought such professional help.

Based on the findings, therapists could observe that a majority of couple partners have a long-term pattern of unsuccessful cohabiting relationships. This may indicate a difficulty in maintaining intimate unions, and therefore the presence of a more serious underlying personal issue requiring attention. Given that having difficulty forming and/or maintaining relationships is an associated feature of high alexithymia (Bagby & Taylor, 1997a), having this information in the early stage of assessing and treating couples can provide a valuable indicator of the presence of alexithymia difficulties.

The clinical couples' response styles suggest that, in the early stage of therapy, many partners begin the process in a state of flux, and that a majority of husbands and wives could be experiencing ambivalence about their relationships.

Furthermore, as expected with couples entering relationship therapy (Snyder, 1997), the partner and relationship appraisals indicate that a majority of clinical spouses will also be in a great deal of distress, and have negatively skewed views that reflect high reactivity, and a failure to consider positive aspects in their partners and/or relationships. According to the findings, this may be particularly so with wives. Given the high proportion of clinical spouses who had negative appraisals of their partners and relationships, it may be that, when couples reach a point of entering therapy, many of the partners are no longer viewing their relationships through 'rose coloured glasses', and they are beginning to face the reality of the severity of their relationship difficulties.

In contrast, therapists may find that some partners present with unrealistically positive appraisals, and a proportion of husbands could have extremely high appraisals of their partners and relationships. When therapy partners have idealistically positive appraisals, these are interpreted as showing a reluctance to take a more critical view of relationship difficulties, an unwillingness to discuss their distress, or an inability to recognise specific sources or causes of dissatisfaction. For those who are in the extreme range, this suggests a high degree of anxiety surrounding their partners' unhappiness and threats to end the relationship, and a level of frantic denial of the relationship difficulties (Snyder, 1997, pp. 20-21).

Given that the clinical partners who reported idealistically positive views had recently begun therapy, it may be that, despite recognition that their relationships were problematic, some of these spouses were not at a point of psychological or emotional readiness to fully address their issues. Their positive views may indicate that they were still at a stage of attempting to protect themselves from facing the reality of their difficulties. In this, it would be important for therapists to consider the couple's state of readiness for change, and to create a therapeutic environment that is safe, supportive, and encouraging in order for couples to feel able to identify and closely examine their relationship issues. Couples may also need to be reassured that "discussion of negative feelings or events can serve as a vehicle for relationship growth rather than alienation" (Snyder, 1997, p. 20). For partners who are particularly anxious, or in denial about their difficulties, a collaborative approach to the therapy will be of particular importance; however, this will be unable to be established until there is resolution of the partners' fears, and their differing views about the relationship (Snyder, 1997, p. 21).

In the following sections, the focus on alexithymia begins, and the findings for the preliminary analyses of alexithymia prevalence rates, gender differences, and intrapersonal and interpersonal correlations are discussed. Readers should note that, due to the low number of clinical couples, non-significant findings may reflect a statistical power issue whereby effects needed be strong in order to rise to significance; therefore, these results must be viewed with some caution. The interpretations of the findings are based on the results that did emerge.

Alexithymia Prevalence Rates

Although it is quite common to see alexithymia (i.e., TAS-20) prevalence rates reported in research with individuals, there is currently very little information about such prevalence

within couples: This is particularly so for Australian couples, and for couples who are having relationship therapy.

The study with community couples found that 11.2% of husbands and 5.3% of wives had high levels of Total Alexithymia (i.e., scores ≥ 61). These rates are lower than those of the 20.8% for husbands and 18.1% for wives found in a Spanish sample of community couples (Eizaguirre, 2002), and more closely in line with the rates of 7.5% for husbands and 6.3% for wives found in an American community couple sample (Frye-Cox & Hesse, 2013). As a point of interest, in the current study, 67.6% of husbands and 80% of wives were low in Total Alexithymia (i.e., scores ≤ 51), and the range equating to a moderate level of Total Alexithymia (i.e., scores of 52 – 60) showed rates of 21.2% for husbands and 14.7% for wives.

In contrast to the community partners, the prevalence rates for the clinical spouses show that 23.5% of husbands and 17.6% of wives had high Total Alexithymia. These rates are somewhat aligned with the proposal by Grabe et al. (2008) that 25% of therapy patients are highly alexithymic. In addition, 58.8% of husbands and 70.6% of wives were in the low range, and 17.6% of husbands and 11.8% of wives were in the moderate range of alexithymia.

Therapeutic Implications – Alexithymia Prevalence

The main distinguishing feature between the couple groups was that a significantly greater proportion of clinical partners had a high level of Total Alexithymia than did community partners. These findings have importance for therapists treating couples in terms of alerting them to the possibility that one or both spouses in a couple may have serious difficulties identifying, expressing, and processing emotion. Furthermore, whilst the general alexithymia literature usually focuses on a low-high distinction of the emotional deficits, it may be clinically useful to consider that a proportion of partners could have a moderate level of alexithymia, which can also affect the person and the relationship.

In addition to examining couple partners' prevalence rates, information was obtained on their gender differences on the alexithymia variables, and the outcome variables. Therefore, husbands' and wives' differences were assessed on Total Alexithymia and the three factors of Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking. The outcome variables examined were Empathy Provided, Empathy Received, the emotion connection indicators (Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection), and Relationship Dissatisfaction.

Gender Differences

Within this research, the topic of gender differences between husbands and wives is important because of the longstanding interest in emotion-related differences between men and women, and the widespread stereotypical belief that males have less emotional competence than do females; however, the issue may not be as clear-cut as it seems.

When the question arises of why males might have less emotional competence than do females, attention is generally focused on males' socialisation, in which a traditional masculinity ideology is reinforced, and subsequently adopted. In examining how this ideology may become a recurring intergenerational pattern, the reasoning is that boys and girls are socialised differently in terms of their emotional expressiveness (Brody, 1997), which can arise through different culturally determined gender roles, display rules (Malatesta & Culver, 1993), and persistent socialised stereotypes that may act as self-fulfilling prophecies (Brody, 1997). Over time, these processes appear to result in boys learning to suppress, divert, and/or ignore their vulnerable feelings, which leads them to become less practised than girls at emotional identification and expression, empathising with the feelings of others, and relational intimacy.

Although socialisation undoubtedly plays a part in emotional development, there is evidence that genetic predispositions and developmental events within family environments also have an influence on the process. For example, observable gender differences in sensitivity to internal or external cues and states have been found in infants as young as one year of age (Watson et al., 2011), with girls showing greater sensitivity to their own, and others', internal states than do boys, and boys showing more difficulty regulating and controlling internal negative emotions than do girls (Zahn-Waxler et al., 2006). Taken together, this may indicate that babies are born with a genetically predisposed sensitivity toward focusing on internal or external experiences, and that different developmental and socialisation experiences influence the aspects that become dominant within the individual.

Whilst the views above pertain to general emotional differences between males and females, it could be argued that alexithymia reflects a more complex emotional construct. Although alexithymia is viewed as involving genetic, developmental, socialisation, and/or trauma influences, it has also been found to be related to neurobiological deficits (Berthoz et al., 2002; Moriguchi et al., 2006, 2007; Parker et al., 1999), which supports the view that alexithymia reflects an underlying problem with cognitive processing and emotion regulation (Bagby & Taylor, 1997a; Karlsson et al., 2008).

The general research into alexithymia gender differences has shown inconsistent findings. For example, males have been found to have significantly higher scores than females on Total Alexithymia (Franz et al., 2008; Fukunishi, 1994; Lane et al., 1998; Parker et al., 1993; Parker et al., 1993b; Parker et al., 2001; Salminen et al., 1994; Salminen et al., 1999; Taylor et al., 1996), Difficulty Describing Feelings (Parker et al., 2001), and Externally Oriented Thinking (Parker et al., 2001; Salminen et al., 1999; Taylor et al., 1996). Conversely, females have been found to have higher scores than males on Total Alexithymia (Mason et al., 2005; Wise et al., 1990), and Difficulty Describing Feelings (Pandey et al., 1996).

Within the relational alexithymia literature, there has also been inconsistency in the findings on gender differences. For example, males have been found to be higher than females on Total Alexithymia (Eid & Boucher, 2012), Difficulty Describing Feelings (Cordova et al., 2005; Eid & Boucher, 2012; Yelsma & Marrow, 2003), and Externally Oriented Thinking (Eid & Boucher, 2012; Yelsma & Marrow, 2003). In contrast, other studies have found no gender difference on Total Alexithymia (Eizaguirre, 2002), Difficulty Describing Feelings (Dunham, 2008; Eizaguirre, 2002; Mirgain & Cordova, 2007), and Externally Oriented Thinking (Eizaguirre, 2002). The most consistent finding has been with Difficulty Identifying Feelings as none of the studies testing this factor have found a gender difference (i.e., Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012; Eizaguirre, 2002; Mirgain & Cordova, 2007; Wachs & Cordova, 2007; Yelsma & Marrow, 2003).

Therefore, within the general alexithymia literature, although the more frequent finding has been that males are higher than females on most of the alexithymia features, there is also evidence indicating that females are higher than males on some of the features. Within the relational alexithymia literature, all of the gender differences found have been that males are higher than females on the features. The most consistent finding across all of the literature is that of no gender difference for Difficulty Identifying Feelings. However, in view of the variation in findings within both the general and relational alexithymia literature, it seems clear that no fixed conclusion can be formed regarding the deficits being gender specific.

Alexithymia Gender Differences

This research found that community husbands were significantly higher than their wives in Total Alexithymia, Difficulty Describing Feelings, and Externally Oriented Thinking; however, there was no significant partner difference for Difficulty Identifying Feelings. When comparing this set of findings to those of previous studies that examined alexithymia

gender differences in community couples, it can be seen that it is most consistent with those of Eid and Boucher (2012), and least consistent with Eizaguirre (2002). Despite the disparity with Eizaguirre (2002), the current results add to the body of evidence indicating that males are higher than females on all of the alexithymia features except for Difficulty Identifying Feelings.

In contrast to the community couples, the clinical spouses did not differ significantly on Total Alexithymia, Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking. Unfortunately, no prior applicable research is available against which these findings can be compared.

Therapeutic Implications – Alexithymia Gender Differences

The findings for the alexithymia variables indicate that the clinical partners were similar in all facets of alexithymia, which suggests the necessity for therapists to forego gender-based stereotyping of emotional ability and competence. However, given the more typical finding for general population couples of husbands having higher alexithymia difficulties than wives, it might be expected that couples in therapy would have similar differences. It may be that the lack of gender differences reflects the high prevalence rate of alexithymia found for both the husbands and the wives. Alternatively, the high levels of distress and negativity that 71% of the clinical wives were experiencing could have affected the degree of emotional competence that they were conveying. Perhaps as the clinical partners' upset and negativity toward their spouses and relationships increased, the wives internalised their feelings and became less emotionally responsive. Over time, this may have led to a similarity in their degrees of alexithymia. This proposal is comparable to that of Frye and Feistman (2010), who suggested that husbands' higher alexithymia may have an emotional contagion effect on wives, who eventually adopt a similar communication style.

Therefore, the lack of alexithymia-related differences between the clinical partners requires some therapeutic caution because if partners have been experiencing conflict for some time, the chronic nature of their high levels of distress, and negativity toward each other and their relationships, may create an emotional dampening effect. Subsequently, these factors could be masking their alexithymia deficits, and therefore, the true nature of the relational difficulties that the partners are experiencing. The accuracy of early presentations will be determined by time spent with the couple, a reduction in the partners' distress, and therapists' careful evaluations of the partners' interactions and emotion-related capabilities.

Empathy Gender Differences

This research investigated a concept of empathy that is new to the alexithymia literature in that it examined spouses' perceptions of the empathic understanding *provided* to their partners, and the empathic understanding *received* from their partners (e.g., Barrett-Lennard, 1986, 2003). In other words, each spouse reported on his or her views of the empathy given to a partner, and the empathy gained from a partner.

In representing both sides of the empathy process, this concept captures partners' perceptions of the relational interactions that occur, and it varies from previous research that has examined discrete aspects of empathy provided to others (as with empathy scales such as the IRI; Davis, 1980, 1983). Within the current empathy framework, a fundamental aspect of empathic understanding is "the opening of one's own self to the immediate feelings and meanings of the other" (Barrett-Lennard, 2003, p. 35). As previously noted, there are three main phases involved in the process of interpersonal empathy. Phase 1 involves one person actively attending to or listening with an empathic attitude to another person who is in some way expressing his or her experiencing. The core aspect of the first phase is that, at some point, the listener has an inner recognition and understanding of the other person's experience. In Phase 2, the listener communicates his or her empathic understanding in ways that may be voluntary or involuntary, and/or verbal or non-verbal. Importantly, if the listener's response does not emerge from an empathically felt process, and is merely a technical mirroring of the other person's words, this is not truly Phase 2 empathy; these two phases equate to Empathy Provided. Phase 3 empathy is the speaker's experience of receiving the empathic understanding; this equates to Empathy Received (Barrett-Lennard, 2003).

The findings for the community couples indicate that there was no significant difference between the husbands' and wives' Empathy Provided to each other; however, there was a significant difference for Empathy Received, with wives receiving less empathy than their husbands. Although the community spouses did not differ statistically on their Empathy Provided, a closer examination found that the mean score for each gender was in the low range (that is, a score less than 16); husbands had a mean of 14.31 and wives had a mean of 14.80. This suggests that both genders had minimal openness to the immediate feelings and meanings of their partners, or of their inner worlds, and that all of the partners were demonstrating a low degree of the Phase 1 and Phase 2 elements of empathy.

In linking the community partners' Empathy Provided similarity to their alexithymia findings, the lack of a gender difference seems unusual. Firstly, there is long-standing

evidence that higher alexithymia is associated with a lower capacity to provide empathy to others (e.g., Bagby & Taylor, 1997a; Grabe et al., 2001; Grynberg et al., 2010; Guttman & Laporte, 2002; Krystal, 1979; Parker et al., 2001; Swiller, 1988). Secondly, the husbands were significantly higher than their wives on Total Alexithymia, Difficulty Describing Feelings, and Externally Oriented Thinking. Thirdly, when providing empathy, the person is accessing his or her capacity to respond with a ‘felt sense’ of understanding another person. In view of these factors, it seems plausible that the husbands would have difficulty providing empathic understanding from such a perspective, and consequently, would differ from their wives in the empathy they were providing. Furthermore, it is evident that high alexithymia is associated with low intrapersonal and interpersonal awareness, and that in the current research, 44% of the husbands described their relationships in highly unrealistically positive terms. Given that the husbands were self-reporting on the empathic understanding they were providing, the gender similarity may have arisen based on an overestimation of the understanding that they were conveying to their wives.

However, when the community couples’ gender difference on Empathy Received is examined, the mean scores indicate that husbands experienced receiving a moderate level ($M = 17.00$) of understanding from their wives, whilst the wives experienced receiving a low level ($M = 12.75$) of understanding from their husbands. These scores suggest that the finding for Empathy Received is more aligned with the previous links found between alexithymia and low empathy (provided), which was revealed because the two empathy measures tap into empathic understanding as an interactional and reflective process, and the Empathy Received measure accesses a person’s ability to experience being understood (Barrett-Lennard, 2003, p. 96). In light of the community husbands having a higher degree of alexithymia than their wives, it would be much more difficult for highly alexithymic husbands to provide experiential empathic understanding than it would be for them to be aware of receiving such understanding. Therefore, it seems reasonable to find that the (more emotionally competent) wives reported receiving significantly less empathic understanding than did their husbands.

The findings for the clinical partners were similar to those of the community partners in that there was no significant difference found between the husbands’ and wives’ Empathy Provided, and there was a significant difference for Empathy Received; again, wives received less empathy than their husbands. Although the partners’ mean scores for Empathy Provided were in the low range, the scores were markedly lower than those of the community couples

for both the husbands ($M = 3.53$) and the wives ($M = 0.29$). Thus, it seems that the clinical partners had minimal engagement in the first and second phases of empathy.

With regard to the clinical partners' significant gender difference for Empathy Received, this result was based on both the husbands and wives being in the low range; however, where the husbands had a mean score of 6.29, the wives had a mean score of -4.59. When contemplating such low scores for Empathy Provided, and for Empathy Received, it appears that the couples who were in therapy had very little understanding of each other, and the wives particularly had a negligible experience of being understood by their husbands.

Therapeutic Implications – Empathy Gender Differences

The levels of Empathy Provided and Empathy Received were extremely low for the couples in therapy, and this was particularly the case for the clinical wives. Because the clinical spouses did not differ on any of the alexithymia variables, an alternative explanation needs to be considered to account for their empathy results. As shown, where over half of the clinical husbands had negative appraisals of their spouses and relationships, this was so for almost three quarters of the wives. In view of such high distress and negativity occurring within the relationships, it seems likely that a minimal degree of empathic understanding was being provided by the majority of the partners.

The clinical couples' gender difference on Empathy Received is an interesting finding because, although the husbands reported providing more empathic understanding than did their wives, this was clearly not being received by their partners. It may be that the substantial degree of upset that was being experienced by many of the spouses compromised the accuracy of the empathy being provided and received. This notion is supported by evidence that empathic accuracy can be inhibited by high levels of acute or chronic stress (Flury & Ickes, 2001). Furthermore, perhaps when couple partners have relationship difficulties that are serious enough to lead them to therapy, the focus for the more distressed partner (in this case, the wife) is on the needs that are not being met, and hence, the understanding that is not being received. This process may have contributed to the wives' perceptions of receiving such little empathic understanding from their husbands.

The importance of empathy in couples' relationships has been underscored by Barrett-Lennard (2003), who stated that "empathic understanding is the most crucial kind of responsive knowing in interpersonal-relational life" (p. 34). From a therapeutic point of view, the findings provide evidence of the potential value of including empathy training, via the

active listening model, as an intervention within the treatment setting with couples (e.g., Gottman, 1999).

Although the active listening model is not stated as formally as is the empathic understanding process described by Barrett-Lennard (2003), it is one of the most influential techniques utilised with couples in relationship therapy, and is known as the listener-speaker exercise (Gottman, 1999; Guerney, 1977). Within the interaction, each partner takes a turn to voice his or her concerns, thoughts, and feelings as ‘I’ statements (for example, “I think ...”, “I feel ...”), after which the other partner suspends judgement or argument, and paraphrases back the content and meaning of the message. The partners continue to discuss the statement in this way until the speaker confirms that the listener has understood and captured the full meaning of the message (e.g., Gottman, 1999).

The use of this exercise can be an effective method of helping couples to develop greater understanding of each other’s perspectives; however, although the exercise might seem simple, couples can find the process difficult. This is largely because with emotion states such as worry, anxiety, depression, and distress, the capacity for empathy is lowered (Barrett-Lennard, 2003). For couples entering therapy, there has usually been a lengthy period of conflict that has preceded the decision to obtain professional help, and states such as these are likely to feature prominently. However, in order for partners to resolve their difficulties, they need to understand what those difficulties encompass. Through use of the listener-speaker exercise, therapists can teach partners how to communicate in a way that enables negotiation and resolution of their issues, and improvement of their understanding of each other.

Emotional Connection Gender Differences

The concept of emotional connection that was utilised in the research arose from the work of Gottman (1998, 1999), and Gottman and DeClaire (2001), who identified specific behaviours that are fundamental to emotional connection in couples, and to the success or failure of their relationships. The emotional connection indicators represent the ways in which couple partners respond to each other’s bids for closeness. With Turn Toward, one partner responds to the other partner’s bid by showing an active interest in a positive way, whereas in Turn Away, the response involves ignoring that person or acting disinterested or preoccupied. With Turn Against, a partner responds to a bid with argumentativeness and/or criticism. Positive Emotional Connection is formed by the partners having a higher ratio of positive to negative interactions, and a sense of emotional connectedness to each other. Of

these indicators, a high degree of Turn Toward and a low degree of Turn Away are considered to be the key elements in the process (Gottman, 1998, 1999; Gottman & DeClaire, 2001).

These responding styles are important to the quality of couples' relationships because research has found that couples who consistently Turn Toward each other "develop stable, long-lasting relationships rich in good feelings for one another" (Gottman & DeClaire, 2001, p. 16). The majority of couples who consistently Turn Against each other eventually separate and/or divorce, but it is the couples who consistently Turn Away from each other that show the earlier divorces. Of note is that, although Turning Against, and Turning Away, from each other are destructive to couples' relationships, the most harmful communication pattern is that of unrequited turning (Gottman, 1999). This occurs when one partner regularly turns toward the other whilst the other partner regularly responds by turning away. Couples who engage in this style of responding have the earliest divorces of all of the groups (Gottman & De Claire, 2001).

The current research found that the community couples had no significant gender difference on any of the four emotional connection variables. The partners' mean scores closely paralleled each other, and were above the average for Turn Toward and Positive Emotional Connection, and below the average for Turn Away and Turn Against.

The clinical couples also showed no significant gender difference on any of the four emotional connection variables. Examination of their mean scores indicates that the partners were above the average for Turn Toward and Positive Emotional Connection, and below the average for Turn Away; however, whilst the wives' mean score for Turn Against was below the average, the husbands' mean score on this variable was above the average.

Overall, these findings suggest that the husbands and wives in each group were somewhat similar in that they had a higher degree of positive than negative processes occurring within their everyday interactions; however, this was more so for the community couples than for the clinical couples. The higher degree of Turn Toward than Turn Away seen in both groups is encouraging because this combination can provide some protection from the unrequited turning that is so harmful to relationships.

Therapeutic Implications – Emotional Connection Gender Differences

The findings of the clinical couples' gender similarities in the emotional connection indicators suggest that the partners were able to distinguish between the positive and detrimental responses that they had to each other's bids for closeness. Additionally, it seems that, despite their reported high levels of distress and negativity, the partners were achieving a

reasonable balance in their positive to negative interactions. Of some concern is that the husbands reported a degree of Turning Against that was above, rather than below, the average score. Whilst the wives had a lower score for this detrimental facet, it was higher than their Turn Away score. This indicates that the couples were responding to each other's bids for closeness with a degree of argumentativeness and criticism, and that this was more so for the husbands.

These findings also suggest that, as with empathic understanding, it may be of therapeutic benefit to utilise the concept and behavioural elements of emotional connection to facilitate greater awareness of couple partners' bids for closeness, and to increase the positive ways in which they respond to each other.

This can be achieved through employing the Bank Account Model (BAM). To briefly restate the concept, a high rate of turning toward behaviours leads to positive reciprocal connections between partners, and these accumulate over time to result in a reservoir of good feelings and positive emotional 'money in the bank'. When coupled with a low rate of turning away and turning against behaviours, a high ratio of positive to negative interactions is created. This kind of positive emotional bank account helps to maintain a sense of positive connection when conflict is not present, and is drawn upon to help de-escalate negative feelings during times of conflict (Gottman, 1999; Gottman & DeClaire, 2001; Schwartz Gottman, 2004). In applying this model with couples, therapists can help partners to identify specific behaviours that they can enact to result in the higher positive to negative ratio. This ratio will create a strong emotional bank account that acts as a protective buffer during times when negative interactions occur.

Clinical experience has shown that the concept is simple to convey, and easy for couples to understand. As an intervention, the act of personalising and exploring the Turn Toward behaviours that are preferred by the partners can interrupt their negative interaction pattern, and help them to understand each other in a different way. For example, therapists may hear many partner responses of "I didn't know you liked that!" Introducing a sense of fun to the intervention can assist the process. Furthermore, when utilising the behaviours as homework tasks, the partners can begin to experience each other as caring and interested, and their distress and negativity will be eased. Despite the seeming simplicity of the intervention, willing and motivated partners can have outcomes that are rapid and powerful. Once such first order changes to their destructive behavioural patterns have occurred, the partners will be

better able to begin to address their issues of concern, and the therapeutic work will become more productive.

Relationship Dissatisfaction Gender Differences

The finding for the community couples indicates that there was no significant gender difference for Relationship Dissatisfaction. This supports the previous research that has investigated alexithymia and community couples in which no gender difference was found for this variable (e.g., Eid & Boucher, 2012; Humphreys et al., 2009; Mirgain & Cordova, 2007; Wachs & Cordova, 2007; Yelsma & Marrow, 2003).

Examination of the community couples' mean scores shows that both the husbands and the wives were in the low range for Relationship Dissatisfaction. According to Snyder (1997), partners who score in the low range typically portray their relationships as a major source of gratification, and they have a strong commitment to that union. Generally, individuals scoring in the low range do not seek couple therapy; if they do, it is often to strengthen the relationship, or is in response to their partners' concerns (p. 21).

The finding for the clinical partners was also that of no significant gender difference for Relationship Dissatisfaction; however, their mean scores indicate that the husbands were in the moderate range and the wives were just inside the high range.

The results of low Relationship Dissatisfaction for the community partners, and moderate/high Relationship Dissatisfaction for the clinical partners support their appraisals. This is because the majority of community spouses reported unrealistically positive views, and the majority of the clinical spouses reported highly negative views of their partners and relationships. This seems especially so for the large proportion of clinical wives whose negative appraisals appear to resonate with the high level of dissatisfaction they were experiencing within their relationships. Therefore, the lack of a gender difference found for each of the couple groups seems congruent.

Therapeutic Implications - Relationship Dissatisfaction Gender Differences

The clinical partners' levels of Relationship Dissatisfaction have therapeutic relevance because moderate scores reflect significant levels of conflict within the relationship, with "frequent arguments, difficulties in resolving differences, and an extended history of relationship conflict" (Snyder, 1997, p. 21). Additionally, high scores indicate extensive dissatisfaction that has arisen from conflicts that have been occurring for a lengthy period and

have generalised across many areas of the couple's interactions. A partner with high dissatisfaction is likely to have anger toward his or her spouse, and a view of that person as uncaring and overly critical (Snyder, 1997). Individuals with high scores also "describe substantial disappointment in the relationship, and are likely to have concerns or doubts regarding the relationship's future" (Snyder, 1997, p. 21). Given that the clinical husbands had the higher degree of Turn Against (which involves responses of argumentativeness and criticism), the high level of relationship dissatisfaction seems relevant for the clinical wives.

Within the clinical setting, when a high level of relationship dissatisfaction is found in individuals at the beginning of relationship therapy, "careful assessment should be made of the respondent's motivations for counseling and of any steps that he or she may have taken toward separation or divorce" (Snyder, 1997, p. 21). In this situation, it would be helpful for the therapist to provide information about the degree of commitment required to change long-standing negative relationship patterns, and to obtain an indication of the partner's willingness to suspend any plans for ending the relationship, and to enter into collaboration toward change (Snyder, 1997, p. 21).

Snyder (1997) also suggested that moderate and high levels of relationship dissatisfaction in therapy partners indicate "the appropriateness of specific interventions aimed at improving partners' interactions and reducing relationship distress" (Snyder, 1997, p. 21). Interventions targeting these aims may be pivotal for spouses who are highly dissatisfied with their relationships because research has found that around 40% of individuals who enter couple therapy with a high level of dissatisfaction continue to show marked levels of relationship distress at termination, even though the intensity of their distress may have decreased to a moderate level (Snyder, 1997, p. 21). This finding seems somewhat similar to the reports suggesting that around one third of couples leave treatment having achieved few positive gains (Gurman, 2011), and less than half of all couple partners gain equal benefits from therapy (Bambling, 2007). This may be a clinical indicator that there is a certain group of couples who encounter particular difficulties in therapy, and that these couples may have alexithymia difficulties that have not been recognised or addressed.

Having examined the gender differences between the couple partners, the next step was to explore the associations between the alexithymia variables, the outcome variables, and the alexithymia and outcome variables. These relationships were examined within the partners (intrapersonally) and between the husbands and wives (interpersonally).

Intrapersonal Associations - Alexithymia Variables

For the community husbands and wives, their *own* Total Alexithymia, Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking were all significantly positively related to each other. This indicates that, within both couple partners, an increase in one aspect of their alexithymia emotional difficulties was associated with an increase in the other aspects of difficulty.

These results show mixed support for previous research that has examined these variables in community couples. Eizaguirre (2002) found similar results for all of the alexithymia variables; however, this was only for husbands; for wives, Eizaguirre (2002) found that Total Alexithymia and Difficulty Describing Feelings were related. Cordova et al. (2005), and Dunham (2008), found that husbands' Difficulty Identifying Feelings was related to their Difficulty Describing Feelings. However, whilst Dunham (2008) found wives' Difficulty Identifying Feelings and Difficulty Describing Feelings to be related, Cordova et al. (2005) found no significant association.

Within the clinical couples, both the husbands', and the wives', Total Alexithymia was associated with higher Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking. Also for both genders, the cross-correlations found that greater Difficulty Identifying Feelings was related to greater Difficulty Describing Feelings. The findings indicate that Externally Oriented Thinking had the least personal influence of all of the alexithymia features.

These results suggest that, although the community and clinical partners had similarities in their alexithymia associations, the clinical partners' emotional deficits had somewhat less intrapersonal influence on each other. The findings also provide evidence that, within individuals, the facets of the alexithymia difficulties do not occur in isolation, and instead, their influences can be reciprocal.

Intrapersonal Associations - Outcome Variables

The community husbands' and wives' own Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction, were all significantly related to each other in the expected positive and negative directions. This indicates that, as with the alexithymia variables, all of the partners' own outcome variables intersected to create a positive or negative influence within that person.

Compared to the community partners, the clinical husbands and wives had fewer intrapersonal associations between their outcome variables, and within the couples, the spouses had similarities and differences. Similarly, both spouses' own Empathy Received was associated with an increase in their own Positive Emotional Connection, and a decrease in their Relationship Dissatisfaction. Higher Positive Emotional Connection was also strongly associated with lower Relationship Dissatisfaction. However, husbands' own Empathy Received was also related to higher Turn Toward. Their Turn Toward was associated with lower Turn Away, higher Positive Emotional Connection, and lower Relationship Dissatisfaction, and Turn Away was related to lower Positive Emotional Connection. Wives' Empathy Provided was associated with a greater degree of Empathy Received, and their higher Turn Away was associated with higher Turn Against.

Intrapersonal Associations - Alexithymia and Outcome Variables

The husbands and wives in the community group differed in their intrapersonal associations between the alexithymia and outcome variables. Almost all of the husbands' own alexithymia and outcome variables were significantly correlated in the expected positive and negative directions. However, husbands' Difficulty Identifying Feelings was not related to their Turn Against, and their Externally Oriented Thinking was not associated with Relationship Dissatisfaction.

The community wives showed a different array of intrapersonal influences. Although many of the wives' alexithymia and outcome variables were significantly correlated in the expected directions, there were no associations between their Total Alexithymia and Turn Toward, between Difficulty Describing Feelings and Turn Toward, and Turn Away, or between their Externally Oriented Thinking and Empathy Received, Turn Toward, Turn Away, Positive Emotional Connection, or Relationship Dissatisfaction. Of interest is that wives' Difficulty Identifying Feelings was associated with all of their outcome variables.

The results for the community husbands' and wives' intrapersonal correlations between Total Alexithymia and Relationship Dissatisfaction are consistent with previous findings obtained by Eid and Boucher (2012), Foran et al. (2012), and Frye-Cox and Hesse (2013), and are in contrast with Eizaguirre (2002), who did not find an association for either gender. For each gender's significant correlation between Difficulty Identifying Feelings and higher Relationship Dissatisfaction, the husbands' finding supports Cordova et al. (2005), Dunham (2008), and Eizaguirre (2002), whereas no significant association was found by Eid and

Boucher (2012). However, for wives, the result supports Cordova et al. (2005), Dunham (2008), and Eid and Boucher (2012), and contrasts with the nonsignificant association found by Eizaguirre (2002). The husbands', and wives', findings for Difficulty Describing Feelings being associated with higher Relationship Dissatisfaction are consistent with Cordova et al. (2005), Dunham (2008), and Eid and Boucher (2012), and in contrast with the lack of significant association found by Eizaguirre (2002). The current finding of no association between husbands', or wives', Externally Oriented Thinking and Relationship Dissatisfaction supports both of the studies that tested this correlation (i.e., Eid & Boucher, 2012; Eizaguirre, 2002). Therefore, the current study with the community couples has added to the majority consensus that all of the alexithymia features, except Externally Oriented Thinking, are associated with higher Relationship Dissatisfaction.

Compared to the community partners, the clinical partners had less relatedness between their alexithymia and outcome variables. The findings indicate that husbands' Total Alexithymia, Difficulty Describing Feelings, and Externally Oriented Thinking were associated with decreases in their Empathy Provided. Husbands' Difficulty Identifying Feelings was not related to any of their outcome variables. Conversely, wives' Total Alexithymia and Difficulty Describing Feelings were not related to any of their outcome variables. Wives' Difficulty Identifying Feelings was associated with a decrease in their Empathy Provided and an increase in their Relationship Dissatisfaction. Their Externally Oriented Thinking was associated with an increase in Turn Away.

Important intrapersonal findings for both genders, in both groups, were the adverse influences of the alexithymia deficits on the partners' Empathy Provided. These findings strongly support the general alexithymia literature pertaining to the relationship between higher alexithymia and lower Empathy Provided (e.g., Grabe et al., 2001; Guttman & Laporte, 2002; Moriguchi et al., 2006, 2007; Parker et al., 2001; Sonnby-Borgström, 2009). In addition, they afford a degree of validation for use of the empathic understanding construct adopted by the current research.

The findings for the intrapersonal associations accentuate that couple partners' personal emotional difficulties can have a significant positive or negative impact on how they perceive important aspects in their relationships. Given the constantly occurring inner dynamics that are influencing each partner in a relationship, there is therapeutic value in having information on how each spouse in a couple can be affected by his or her own alexithymia, empathy, emotional connection, and relationship dissatisfaction.

Therapeutic Implications – Intrapersonal Associations

The examination of the partners' intrapersonal associations provides some insight into the ways in which clinical husbands and wives may be thinking and feeling about their emotions, empathy, emotional connection, and relationship dissatisfaction. Having this evidence is of benefit because it suggests that individuals are not solely at the mercy of their partners' attributes in determining the quality of their relationships. Instead, much is determined by a person's own attributes and behaviours, which interrelate to influence the quality of that union (e.g., Atkinson, 2005). This creates openness for the possibility for positive personal change to occur, which may then improve the couple's relationship satisfaction.

In generalising the clinical partners' findings to the treatment setting, if therapists observe a husband or wife having difficulty in one aspect of the alexithymia deficits, it is probable that the person is also having difficulty in other associated deficits. This can alert therapists to the possible existence of a high overall level of alexithymia.

Within the outcome variables, strong associations emerged for both the husbands and the wives. Therapists could find that the most beneficial targets for reducing husbands' Relationship Dissatisfaction will be to increase their Empathy Received, Turn Toward, and Positive Emotional Connection. For wives, their Relationship Dissatisfaction will also be lowered by increases in their Empathy Received and Positive Emotional Connection; however, wives' Empathy Received could be influenced by their Empathy Provided. Improving these positive relational aspects may be particularly important for wives because of the need to lower their Turn Away, which may be associated with increases in their Turn Against. Of note is that husbands may be more affected by their own attributes than are their wives.

A further clinical consideration is the way in which partners' own alexithymia difficulties influence their own outcomes. Based on the findings, therapists might observe that husbands' Empathy Provided is strongly influenced by their Total Alexithymia, Difficulty Describing Feelings, and Externally Oriented Thinking. This could be an important consideration for the wives because, as seen above, their Empathy Received is associated with their Relationship Dissatisfaction.

Therapists can anticipate that the husbands' and wives' intrapersonal influences might differ. In this, higher Difficulty Identifying Feelings in wives could be associated with decreases in their Empathy Provided, and increases in Relationship Dissatisfaction. Furthermore, higher Externally Oriented Thinking may be related to higher Turn Away. This

combination of effects will be challenging for therapists because husbands' Relationship Dissatisfaction is influenced by their Empathy Received, as is their Turn Toward, which is related to their Turn Away. A cascade of effects such as these presents the possibility of an unrequited turning interaction pattern between the partners, which is known to be particularly deleterious to relationships.

Therefore, the findings of interrelatedness between the partners' own alexithymia, empathy, emotional connection, and relationship dissatisfaction reinforce the importance of considering, and perhaps focusing on, these aspects within couple therapy. This is because they provide some direction regarding the ways in which each partner's own emotional capacity and perceptions can affect his or her 'way of being' in the relationship. As such, the findings can be useful clinical indicators of the inner processes occurring within husbands and wives who enter therapy.

Although having knowledge of the partners' personal influences is of value, the quality of intimate relationships also involves partners achieving a satisfying balance between their own perceptions and responses, and those of their spouses. Therefore, the next point of interest is the interpersonal associations that were found between the husbands and wives.

Interpersonal Associations – Alexithymia Variables

The community partners' interpersonal correlations found significant positive associations between husbands and wives on Difficulty Identifying Feelings, and on Externally Oriented Thinking. The partners were not significantly related on Total Alexithymia, or Difficulty Describing Feelings, and there were no significant cross-correlation coefficients amongst the alexithymia variables. It is interesting that the partners were related on these two alexithymia factors because the majority of community spouses reported unrealistically positive appraisals of their partners and relationships. It may be that their emotional difficulty in identifying feelings and outward focus produced a decoupling of their physiological and cognitive processes (e.g., Papciak et al., 1985), which in turn, served a pseudo protective function in how they viewed their partners and bonds (e.g., Murray et al., 1996; O'Rourke & Cappeliez, 2005).

The findings for the community couples are consistent with previous studies that also found partner associations on Difficulty Identifying Feelings (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012), and on Externally Oriented Thinking (Eid & Boucher, 2012), and a lack of association on Total Alexithymia (Foran et al., 2012; Frye & Feistman, 2010),

and Difficulty Describing Feelings (Dunham, 2008; Foran et al., 2012). However, there is disparity with studies that did find significant relationships for Total Alexithymia (Eid & Boucher, 2012; Frye-Cox & Hesse, 2013), and Difficulty Describing Feelings (Cordova et al., 2005; Eid & Boucher, 2012), and a lack of partner associations for Difficulty Identifying Feelings, and Externally Oriented Thinking (Foran et al., 2012).

The current study's nonsignificant findings for the community partners' cross-correlations between the alexithymia variables are in contrast with previous associated research. These studies found positive associations between husbands' Total Alexithymia and wives' Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking. Wives' Total Alexithymia was correlated with husbands' Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking (Foran et al., 2012). Husbands' Difficulty Identifying Feelings was related to wives' Difficulty Describing Feelings (Cordova et al., 2005; Dunham, 2008, Foran et al., 2012), and wives' Difficulty Identifying Feelings was related to husbands' Difficulty Describing Feelings (Cordova et al., 2005). Husbands' Difficulty Describing Feelings was associated with wives' Difficulty Identifying Feelings, and Externally Oriented Thinking (Foran et al., 2012). Husbands' Externally Oriented Thinking was correlated with wives' Difficulty Identifying Feelings, and their Difficulty Describing Feelings (Foran et al., 2012).

Therefore, it seems that the Australian community husbands and wives were much less influenced by each other's alexithymia difficulties than were spouses from other countries. Within Australian couples, the partners' Difficulty Identifying Feelings and Externally Oriented Thinking were of most influence between the spouses.

In contrast, the clinical husbands and wives showed no significant relatedness between their alexithymia deficits, suggesting that the partners who were in therapy were not being influenced by each other's emotional difficulties.

Interpersonal Associations – Outcome Variables

The majority of the community husbands' and wives' outcome variables were significantly related. Firstly, there were positive associations between the partners' Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction. Secondly, the cross-correlations amongst the outcome variables found partners to be significantly associated on the majority of these in the expected positive and negative directions. The exceptions were that husbands' Empathy Provided, and

their Turn Against, were not related to wives' Turn Toward, and husbands' Turn Against was not related to wives' Turn Away. These findings indicate that one partner's positive or negative approach corresponded with a similar response in the other partner. This suggests a level of engagement between these partners that resulted in a great deal of mutual influence within the relationship.

With regard to the previous applicable couples' research, Relationship Dissatisfaction is the only variable in common for comparison. The current research supports the previous studies by Cordova et al. (2005), Dunham (2008), Eid and Boucher (2012), and Frye-Cox and Hesse (2013) that found husbands' and wives' Relationship Dissatisfaction to be significantly positively associated.

The results for the clinical partners' outcome variables indicate that there were very few significant correlations or cross-correlations. Firstly, higher Positive Emotional Connection in one spouse was associated with a higher degree of this attribute in the other spouse. Secondly, the cross-correlations found that wives' Positive Emotional Connection was also associated with a decrease in husbands' Turn Against and Relationship Dissatisfaction. These findings suggest that Positive Emotional Connection was an important influence between the partners who were having therapy.

Interpersonal Associations – Alexithymia and Outcome Variables

The community partners showed a number of significant correlations between their alexithymia and outcome variables. Husbands' Total Alexithymia was associated with lower Empathy Provided and Empathy Received, and higher Relationship Dissatisfaction in wives. Husbands' Difficulty Identifying Feelings was associated with wives' lower Empathy Received and higher Relationship Dissatisfaction. Husbands' Difficulty Describing Feelings was related to all of the wives' outcome variables in the expected positive and negative directions; however, husbands' Externally Oriented Thinking was not related to any of the wives' outcome variables. In contrast, the community wives' Difficulty Describing Feelings was the only alexithymia variable that influenced their husbands, and this was associated with lower Empathy Received. The wives' Externally Oriented Thinking was not related to any of the husbands' outcome variables.

These findings suggest that, of the two genders, the husbands' alexithymia difficulties had the greater influence between the partners. In addition, for both the husbands and wives, Difficulty Describing Feelings was the most influential alexithymia factor, and Externally

Oriented Thinking the least influential factor. This may indicate that the quality of community couples' relationships depends more on awareness and communication of feelings than on an externally focused thinking style.

With regard to the previous alexithymia research with couples, the current results are consistent with findings of significant associations between husbands' Total Alexithymia and wives' Relationship Dissatisfaction (Eid & Boucher, 2012; Frye-Cox & Hesse, 2013), and husbands' Difficulty Identifying Feelings, and Difficulty Describing Feelings, and wives' Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012). There is also consistency with the previous finding of no association between husbands' Externally Oriented Thinking and wives' Relationship Dissatisfaction (Eid & Boucher, 2012). For wives, the current findings support the previous nonsignificant correlations between wives' Total Alexithymia, Difficulty Identifying Feelings, and Externally Oriented Thinking, and husbands' Relationship Dissatisfaction (Eid & Boucher, 2012), and between wives' Difficulty Describing Feelings and husbands' Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008; Eid & Boucher, 2012). However, there is contrast with significant positive correlations that were previously found between wives' Total Alexithymia and husbands' Relationship Dissatisfaction (Foran et al., 2012; Frye-Cox and Hesse, 2013), and between wives' Difficulty Identifying Feelings and husbands' Relationship Dissatisfaction (Cordova et al., 2005; Dunham, 2008).

The clinical partners' associations between the alexithymia variables and the outcome variables differed noticeably from those of the community couples, and this was in both the number of associations between the partners, and the directions of the findings. Once again, there were very few significant associations; however, those that did emerge were strong and unexpected. In fact, they were so unexpected, the data coding, data entry, and analyses, were re-examined to confirm their accuracy. The findings indicate that husbands' Total Alexithymia, Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking were all related to *lower* Turn Away in wives. Furthermore, wives' Difficulty Describing Feelings was also related to lower Turn Away in husbands.

In considering the meaning of the clinical partners' associations, it is known that alexithymia represents difficulties with identifying and expressing feelings, and with inner reflection, and that Turn Away represents responding to a partner's bids for closeness by ignoring that person or acting disinterested or preoccupied. When considering these

meanings, together with the associations between the alexithymia variables and Turn Away, there are a number of possible explanations for the results.

One explanation for these findings could perhaps be extrapolated from the study by Karlsson et al. (2008). In that study, the findings were also surprising to the authors because highly alexithymic women reported feelings of anger after watching an amusing video, disgust after watching a sad video, and threat after viewing a neutral film. Responses of this kind are viewed as reflecting distorted perceptions of situations, and are thought to indicate deficits in identifying feelings, which can lead to mislabelling of feelings (Samur et al., 2013), and poor recognition of emotional facial expressions (Grynberg et al., 2012). Given that, in the current study, 29% of the clinical wives showed an idealistic distortion in their relationship appraisals, and almost 59% had higher Difficulty Identifying Feelings than did their husbands, it is wondered if a similar process was occurring for these wives. However, it must be noted that the study by Karlsson et al. comprised a sample of women who had Borderline Personality Disorder, and therefore, this explanation should be regarded with caution.

An alternative explanation is linked to the evidence that there were substantial prevalence rates of Total Alexithymia in the clinical husbands and wives, and the partners showed no significant differences on their alexithymia variables. If the findings are viewed as higher alexithymia was associated with lower Turn Away, this might suggest that these spouses had similar emotion styles that were not experienced as aversive, and hence, the partners had little need to ignore each other or be disinterested or preoccupied.

On the other hand, in statistical terms, the results simply indicate an association between two variables that is in the opposite direction. Therefore, the findings can also be stated as lower alexithymia was associated with higher Turn Away. As such, the interpretation could be that when husbands and wives had less emotional difficulty (and were more emotionally aware and expressive), their spouses had a greater degree of Turn Away. Given the fact that these couples had entered therapy for their relationship distress, it may be that the content of the partners' expression resulted in less engagement by their spouses, and a higher degree of ignoring them and acting disinterested or preoccupied. In view of the finding that the associations for both genders were in the same direction, this explanation may be the most plausible option. However, due to the variety of possible explanations for the findings, it is clear that this interpersonal aspect would benefit from further investigation with clinical couples.

Therapeutic Implications – Interpersonal Associations

The findings for the clinical couples suggest that, whilst the husbands' and wives' alexithymia was not associated, their outcomes showed some interpersonal influence. In this, there is relevance in knowing that wives' Positive Emotional Connection may be a valuable clinical target on which to focus as a way of increasing husbands' Positive Emotional Connection, and decreasing their Turn Against behaviours and Relationship Dissatisfaction.

Furthermore, the associations found between the partners' alexithymia difficulties and their spouses' Turn Away could be of particular therapeutic interest. Given that Turn Away is the emotional connection behaviour that is most detrimental to couples' relationships, it may be that the lower degree of awareness and expressiveness associated with alexithymia deficits can serve a pseudo protective function within these couples' relationships.

As an addition to this section, discussion is warranted regarding the differences found between the two couple groups' patterns of intrapersonal and interpersonal associations. These are quite striking, and are most apparent when visually examining the correlation tables side-by-side (see Tables 65 and 66, pp. 278-279; Tables 67 and 68, pp. 282-283).

In viewing the findings through a therapeutic lens, it can be seen that with the community partners' intrapersonal and interpersonal results, there is a sense of great activity occurring within, and between, the spouses. However, with the clinical partners, there is a sense of disconnectedness and emptiness within, and between, the partners. The clinical couples' patterns of results seem to resonate with the view of McDougall (1985), who indicated that when alexithymia is present within couples, the interactive dynamics can have a devitalising effect on interpersonal communication and relationships, which couples feel powerless to change. Therefore, again, clinicians may find that an initial similarity in emotional competence could be a reflection of the partners' distress and detachment rather than their accurate levels of alexithymia.

Although examination of correlational associations within, and between, couple partners is informative, this statistical method is not able to fully explore the interactive nature of couples' relationships. In order to gain a deeper understanding of this perspective, the Actor-Partner Interdependence Model (APIM) is recommended (Kenny et al., 2006). Whilst the APIM seems similar to correlational analysis, it is more aligned with regression analysis; however, unlike traditional regression analysis, the APIM takes into account the nonindependence of couples' data, and is considered a more robust, accurate, and reliable test (Eid & Boucher, 2012; Kenny et al., 2006). A further value of utilising the APIM method is

its ability to test actor (intrapersonal) and partner (interpersonal/mutually influencing) effects of predictor variables on outcome variables, as well as interactions between the two. In the current study, this meant that it could assess whether husbands', and wives', alexithymia variables predicted their own, and their spouses', empathy, emotional connection components, and relationship dissatisfaction. In addition, it facilitated the detection of interaction effects for gender differences.

This investigation could be applied only to the community couples who had the larger sample size, and due to the number of variables tested, all of the findings were evaluated based on an adjusted alpha level of .007.

Actor-Partner Interdependence Model (APIM)

The APIM investigation found that the community husbands', and wives', own (actor effects) Total Alexithymia, Difficulty Identifying Feelings, and Difficulty Describing Feelings predicted a decrease in their own Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and an increase in their own Turn Away, Turn Against, and Relationship Dissatisfaction. Once again, Externally Oriented Thinking seemed to be the least influential factor, with its predictive value limited to a decrease in Empathy Provided and an increase in Turn Against for each gender.

Examination of the mutual influences (partner effects) found that for both genders, Total Alexithymia and Difficulty Describing Feelings predicted lower Empathy Provided and Empathy Received in their spouses. The spouses' Difficulty Describing Feelings also predicted higher Relationship Dissatisfaction in each other. There were no mutual effects for Externally Oriented Thinking, and the findings applied to both husbands and wives.

With regard to previous comparable research examining actor effects, the findings of husbands' and wives' Total Alexithymia as predictors of their own Relationship Dissatisfaction support the studies by Eid and Boucher (2012), Frye and Feistman (2010), and Frye-Cox and Hesse (2013). Furthermore, Eid and Boucher (2012) also found an actor effect for wives' Difficulty Identifying Feelings predicting their own Relationship Dissatisfaction; however, in contrast to the current study, they did not find a similar effect for husbands.

For partner effects, the current study's lack of partner effects for Total Alexithymia and Relationship Dissatisfaction are in contrast with significant findings for husbands (Frye & Feistman, 2010; Frye-Cox & Hesse, 2013; Eid & Boucher, 2012). In addition, the finding that wives' Difficulty Identifying Feelings did not predict husbands' Relationship

Dissatisfaction supports Eid and Boucher (2012); however, in contrast with these authors, husbands' Difficulty Identifying Feelings also failed to predict wives' Relationship Dissatisfaction. The findings of the husbands', and the wives', Difficulty Describing Feelings predicting an increase in their own, and each other's, Relationship Dissatisfaction support those of Eid and Boucher (2012).

The results of the APIM investigations substantiate most of the community couples' intrapersonal and interpersonal correlational associations, and they strengthen the current study's evidence that individuals' alexithymia-related difficulties are robust predictors of their own Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction. Furthermore, the findings that individuals' Total Alexithymia difficulties predicted their partners' Empathy Provided, Empathy Received, and Relationship Dissatisfaction provide valuable information about interactive processes that can occur within intimate relationships.

In the next section, these dynamics are examined from a different perspective. This perspective is based on evidence that relationship difficulties occur when spouses differ in their degrees of alexithymia (Swiller, 1988; Yelsma & Marrow, 2003). Therefore, examination was undertaken of the effects of couples' alexithymia discrepancies on their empathy, emotional connection, and relationship dissatisfaction. Once again, this investigation was possible only with the community couples.

Discrepancy Analyses

The issue of spouses' alexithymia discrepancies was initially raised by Swiller (1988), who described the problematic personal and interpersonal processes that can occur with such partners, and highlighted that an important aspect is the lack of empathy provided by the highly alexithymic person.

In what appears to be the only study to investigate alexithymia-related differences between married partners, Yelsma and Marrow (2003) examined the effects on marital dissatisfaction based on whether husbands or wives had the higher degree of Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking: The Total Alexithymia scale (TAS-20) was not included in the study. These authors found that when husbands had higher Difficulty Describing Feelings and Externally Oriented Thinking than their wives, husbands' marital dissatisfaction increased; however, when wives had higher Difficulty Identifying Feelings than their husbands, the wives', and the husbands', marital dissatisfaction

increased. There were no effects when husbands had the higher Difficulty Identifying Feelings, or when wives had the higher Difficulty Describing Feelings and Externally Oriented Thinking. Thus, husbands' marital dissatisfaction was affected when they, or their wives, had a higher degree of alexithymia difficulty, whereas wives' marital dissatisfaction was affected only when they had the greater degree of emotional difficulty.

To extend the research by Yelsma and Marrow (2003), the current study investigated community partners' discrepancies in Total Alexithymia, Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking, and the effects of these differences on their Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, Positive Emotional Connection, and Relationship Dissatisfaction.

The examination of Total Alexithymia was based on the spouses' differing levels, which was possible because of the established TAS-20 cut-off scores that enable delineation of low, moderate, and high level differences; the categories analysed were those of low-low, low-moderate, and low-high levels of Total Alexithymia. However, the Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally Oriented Thinking discrepancies were based on spouses' scores rather than their levels of difficulty. This method was necessary due to the lack of established cut-off scores for the alexithymia factors. The results for all of the analyses were evaluated based on an adjusted alpha level of .007.

Results for three different types of effects were obtained: These included the effects of (1) discrepancy levels/scores on their own, (2) the gender that had the higher level/score, and (3) interactions between the discrepancy levels/scores and the genders. Where a main effect and an interaction occurred, the results for the interaction superseded the findings for the main effect. In addition, with the interactions, although this analytic phase was able to detect a gender difference, it was not able to define the gender origin of that difference. In order to do so, the two-intercept model (see Kenny et al., 2006, p. 176) was modified to accommodate the discrepancy analyses.

Total Alexithymia Discrepancies

The partners' Total Alexithymia discrepancies differed in a number of ways in their predictions of the husbands' and wives' outcomes. For husbands, the only effects of a discrepancy in Total Alexithymia were decreases in their Empathy Provided and Empathy Received, and these were predicted solely by the couples having a discrepancy in this variable.

For the wives, a discrepancy in Total Alexithymia predicted a decrease in their Empathy Provided, Empathy Received, and Positive Emotional Connection, and an increase in their Turn Away, and Turn Against. Wives' Empathy Received was predicted solely by the discrepancy; however, all of their other outcomes were predicted when there was a combination of a discrepancy and they had the higher level of difficulty. In addition, a decrease in wives' Positive Emotional Connection was also predicted when there was a combination of a Total Alexithymia discrepancy and the husbands had the higher level of difficulty. There were no discrepancy effects for either gender for Relationship Dissatisfaction.

These results suggest that partner differences in Total Alexithymia were important to both spouses as contributors to the empathic understanding that was provided and received within the relationship; however, they also seem important to the ways in which the wives responded to their husbands' bids for emotional connection. In this, Total Alexithymia discrepancies within the couples had a greater impact on the wives' outcomes than they did on the husbands' outcomes, and almost all of the effects for wives interacted with the spouse who had the higher level of emotional difficulty. As such, it appears that the greatest predictive aspect for wives' empathy and emotional connection was when they had a higher level of Total Alexithymia than their husbands.

Alexithymia Factor Discrepancies

The partner discrepancies in the alexithymia factors predicted only the husbands' outcomes, and resulted in lower Empathy Provided, Empathy Received, and Turn Toward, and higher Turn Away and Turn Against. As with the Total Alexithymia discrepancies, the factor discrepancies were not predictors of partners' Relationship Dissatisfaction. In addition, they did not affect husbands' Positive Emotional Connection.

Specifically, partner discrepancies in Difficulty Identifying Feelings and Difficulty Describing Feelings predicted decreases in husbands' Empathy Provided and Empathy Received, and the Difficulty Describing Feelings discrepancies also predicted lower Turn Toward and higher Turn Away; however, all of these effects occurred only when husbands had a higher degree of the difficulties than their wives. Furthermore, when the partners had a discrepancy in Externally Oriented Thinking, the husbands' outcomes were predicted in two ways: One involved higher Turn Away solely when there was a discrepancy between the partners, and the second involved higher Turn Against when there was a combination of a partner discrepancy and husbands had the higher degree of Externally Oriented Thinking.

It can be seen that the results are not consistent with Yelsma and Marrow (2003) regarding alexithymia factor discrepancies increasing partners' relationship dissatisfaction; however, they do support their general findings that partner differences in the alexithymia features can be harmful to relational outcomes, and that partners' own associated difficulties have a central role in the process.

It is of interest that none of the partners' alexithymia-related discrepancies had a direct effect on their relationship dissatisfaction. This might be explained by the unrealistically positive relationship appraisals found with the majority of the community couples. Again, perhaps maintaining such a positive approach to their relationships acted as a protective buffer that helped these partners to withstand their day-to-day difficulties, and prevented them from viewing these as threats to the entire relationship (e.g., Murray et al., 1996; O'Rourke & Cappeliez, 2005). Of concern, however, is that the combination of effects for the husbands and wives represents a pattern of adverse influences that have been found to be particularly harmful to couples' relationships (e.g., Barrett-Lennard, 2003; Gottman & DeClaire, 2001). In view of the fact that these were community couples who were not having therapy, these results may be providing a unique preview of the dynamics that occur prior to the breakdown of couples' protective mechanisms, and the decision is made to seek professional therapeutic help.

Overall, the findings indicate that the community partners' alexithymia-related discrepancies predicted their empathy and emotional connection outcomes, but not their relationship dissatisfaction. Whilst husbands' outcomes were affected when partner discrepancies existed in any of the four aspects of alexithymia, wives' outcomes were affected only by Total Alexithymia partner differences. The husbands and wives differed on whether their outcomes were influenced by the discrepancies alone, by which spouse had the higher level of difficulty, and whether there was a combination of these two processes. However, it seems that each gender's empathy and emotional connection were most affected when their own alexithymia difficulties were higher than those of their partners.

The discrepancy findings strengthen the correlational and APIM results, and they provide evidence that couple' relational outcomes are adversely affected when the partners differ in their degrees of alexithymia. This evidence offers further support for the view that partners' emotional mismatches are detrimental to couples' relationships (e.g., Gottman, 1999; Gottman et al., 1996; Swiller, 1988), and alexithymia differences between spouses have deleterious effects on the empathy that is provided (Swiller, 1988). However, given that the

current study examined community couples, and Swiller (1988) was referring to couples in therapy, it is uncertain whether these findings can be generalised to include clinical couples.

Although the clinical couples' sample size did not enable specific testing of the partners' alexithymia discrepancies, relevant information was obtained through analyses examining similarities and differences between the clinical and community couples. These comparisons centered on the partners' alexithymia, empathy, emotional connection, and relationship dissatisfaction variables, and on their alexithymia discrepancies. The comparative analyses were aimed at assessing the feasibility of generalising the community couples' findings to the couples who were having therapy. Therefore, the findings for the comparisons are presented in the next section, and they precede the discussion of therapeutic implications of alexithymia discrepancies.

Comparative Analyses: Clinical and Community Couples

The clinical and community partners were compared through a series of Generalised Linear Mixed Models (GLMMs). The GLMM represents a special class of regression model that enables analysis of variables that have markedly non-normal distributions and/or large inequalities between group sizes. In this analysis, the model was also able to accommodate the nonindependence of the data, and provide findings based on group (clinical versus community), gender (husbands versus wives), and group by gender interactions.

In providing a context for the findings, it is worth noting that, because statistical power is generally determined by the size of the smaller group, the GLMM had only sufficient power to detect 'strong' effects. Furthermore, to control for inflation of the Familywise error rate, alpha corrections were applied within groups of conceptually related outcomes rather than across the entire set of outcomes. This resulted in the findings being evaluated against adjusted alpha levels; for Total Alexithymia, Difficulty Identifying Feelings, Difficulty Describing Feelings, Externally Oriented Thinking, Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection, the alpha level was set at .012. Empathy Provided and Empathy Received were evaluated at .025, and Relationship Dissatisfaction at .05. With regard to the alexithymia-related discrepancies, the alpha level was .012.

The results of the comparisons indicate that there were similarities and differences between the clinical and community couples. Of particular salience, there were no significant between-group differences for Total Alexithymia, Difficulty Identifying Feelings, Difficulty

Describing Feelings, and Externally Oriented Thinking. Additionally, in both groups, the husbands had higher Externally Oriented Thinking than their wives.

Although the groups were similar in alexithymia, compared to the community couples, there were over twice as many clinical husbands, and over three times as many clinical wives, who had a high level of Total Alexithymia. It may be that, rather than the degree of alexithymia differentiating therapy couples from non-therapy couples, it is the predominance of high alexithymia in the groups that is of greatest relevance. This is consistent with the prevalence rates found for the couple groups whereby the clinical partners had a higher prevalence of Total Alexithymia than did the community partners.

In contrast, compared to the community couples, the clinical husbands and wives had significantly lower Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and higher Turn Against, and Relationship Dissatisfaction; Turn Away fell just short of significance at .013. These findings are consistent with Snyder (1997), who found significant differences between therapy couples and community couples across a broad range of relational areas, including that of Relationship Dissatisfaction. Snyder (1997) proposed that the differences reflect the high level of distress that clinical couples experience at the early stage of entering marital therapy, which seems congruent with the clinical partner's appraisals. It may be that the greater prevalence of high alexithymia found in these couples, and the subsequent effects on their empathy, emotional connection, and relationship dissatisfaction, were underlying contributing factors to their distress.

The comparisons between the clinical and community couples' alexithymia-related discrepancies found that the size of the clinical partners' discrepancies was larger for Total Alexithymia, and for Difficulty Describing Feelings; however, this was only when wives had a higher degree of these deficits than their husbands. This is an interesting finding because, as seen with the community wives' discrepancy results, partner differences in Total Alexithymia affected wives' empathy and emotional connection mainly when their levels of alexithymia were higher than the husbands' levels. Hence, it seems that when couple partners have discrepant levels of Total Alexithymia, wives' emotional difficulties play a particularly significant role. These findings require further investigation because within the literature, it is usually males' alexithymia that is cited as problematic, with relatively little mention of the impact that females' alexithymia can have. Whilst it seems generally accurate that males, rather than females, have greater alexithymia deficits, it may be that when wives have the higher overall emotional difficulty, and greater difficulty communicating how they feel, the

personal effects negatively influence their interactions with their husbands, which subsequently diminishes the quality of their relationships.

In summary, whilst the degree of alexithymia was similar within the clinical and community partners and did not distinguish the groups, the clinical partners had significantly lower Empathy Provided, Empathy Received, Turn Toward, and Positive Emotional Connection, and higher Turn Against and Relationship Dissatisfaction. Although the discrepancies in the two couple groups were similar for Difficulty Identifying Feelings and Externally Oriented Thinking, clinical partners had wider discrepancies in Total Alexithymia and Difficulty Describing Feelings when wives were higher in these emotional deficits than their husbands. Therefore, based on the similarities and differences found between the groups, there appears to be some merit in generalising the discussion of therapeutic implications of alexithymia discrepancies to couples who are having therapy for their relationships.

Therapeutic Implications - Alexithymic-Discrepant Couples

The findings for the discrepancies, and the group comparisons, suggest that the discrepancy effects found in the community couples can offer some therapeutic guidance regarding the processes that can occur with partners who differ in their degrees of alexithymia. Notably, husbands may be affected by partner discrepancies in all of the aspects involved in alexithymia, whereas wives could be affected by partner discrepancies in total alexithymia. Furthermore, when there are alexithymia-related discrepancies between spouses, the adverse effects on their empathy, emotional connection, and relationship dissatisfaction will likely be greatest for the spouse who has the higher degree of difficulty.

Therefore, based on the evidence found, therapists can expect to see a significantly greater proportion of clinical than community couples in whom high alexithymia is present, and clinical partners could demonstrate noticeably less Empathy Provided, Empathy Received, Turning Toward behaviours, and Positive Emotional Connection, and greater Turning Against behaviours, and Relationship Dissatisfaction.

Discrepancies between clinical partners in Difficulty Identifying Feelings and Externally Oriented Thinking may be similar to those of community partners, and husbands' Externally Oriented Thinking could be greater than that of their wives. However, when wives have the greater Total Alexithymia and Difficulty Describing Feelings, the discrepancy between the partners on these features may be wider than would generally be seen.

In light of this evidence, if alexithymia is assessed as an issue within a couple's relationship, it is probable that the partners will differ in their degrees of emotional difficulty (e.g., Swiller, 1988). Therapists may find that the motivation for seeking couple therapy has been prompted by the more emotionally competent partner being dissatisfied with a "lack of 'communication' or 'closeness' in the relationship" (e.g., Swiller, 1988, p. 51). Of interest is that couples will often initially cite these two elements as their main issues of concern.

As therapists become familiar with alexithymic-discrepant partners and their conflicting emotion styles, they may wonder how two such different individuals have come to be together; in this, the general alexithymia literature can provide some insight. Clinical reports have suggested that, when an emotionally competent person enters into a close relationship with someone who is highly alexithymic, that person's emotional difficulties may not be immediately apparent because he or she can present as a well-functioning individual who appears somewhat super-adjusted (Krystal, 1988). Whilst these relationships often start well, interpersonal difficulties arise when the couple's interactions cannot move past superficial functioning and communication to a deeper and more emotionally meaningful level, and this becomes especially problematic for the partner who is more emotionally aware and expressive (e.g., Swiller, 1988; Taylor, 2001). In particular, the communication styles of highly alexithymic individuals can be experienced by others as extremely frustrating and boring, which is largely due to their unrelenting focus on the minutiae of events that are external to the self rather than on inner emotional responses (Swiller, 1988; Taylor, 1977, 1984b). In having such a focus, emotionally competent partners can misinterpret this style of communicating as a deliberate withholding of emotional responding. They often personalise the meaning and subsequently feel hurt and angry. These couples may present as being entrenched in a 'demand – withdrawal' dynamic (e.g., Foran et al., 2012); however, from another perspective, they may be in an unrequited turning communication pattern. As already noted, this is where one person consistently turns toward another in a bid for emotional closeness and the other person consistently responds by turning away (e.g., Gottman & DeClaire, 2001).

A further clinical indicator found in the current research is the proportion of clinical husbands who had partner and relationship appraisals that suggest defensiveness and resistance to addressing their marital issues. In considering the possible underlying reasons such an attitude, this finding may relate to the view that a highly alexithymic partner's approach to his or her spouse can have a "concrete, addictive quality in that the [person] must

cling to the loved one at all costs, as if that were the only means of care and security” (Kraemer & Loader, 1995, p. 939). Although there is no additional empirical evidence to verify this, my clinical experience with highly alexithymic clients, and alexithymic-discrepant couples, supports this perspective. Therapists may notice that, for the alexithymic partner, the relationship seems to revolve around dependency on the more emotionally competent spouse rather than on true affection. In fact, if asked about having a sense of love for a partner, those with a very high level of alexithymia may indicate that they do not know what love feels like. Of course, to avoid additional distress for the couple, a question such as this would be posed to the individual and not in the presence of both partners.

Moreover, my observations are that when the more emotionally aware spouse threatens to end the relationship, the highly alexithymic partner can experience immense turmoil and fear. As a consequence, an alexithymic person’s reticence in exploring the issues of concern can be an attempt to avoid upsetting his or her spouse, with the aim of forestalling the possibility of the relationship ending. Based on the current research, it seems that approximately 11% of husbands may present in this way, and it could be helpful for therapists to recognise these characteristics as anxiety and distress rather than resistance.

Swiller (1988) suggested that, in couples with alexithymia discrepancies, the relationship can have positive elements such as mutual respect, affection, and satisfying sexual relations. However, although mutual respect may be observed between the partners, studies have found high alexithymia to be associated with lower affection (Hesse & Floyd, 2008, 2011), and lower sexual satisfaction (Humphreys et al., 2009). My experience is that some highly alexithymic partners will substitute sexual closeness for emotional closeness, which can be a somewhat sustaining element within the relationship. Over time, however, the partner who is more emotionally competent becomes dissatisfied with the relationship due to the lack of emotional intimacy.

Reassuringly, Swiller (1988) has indicated that successful relationship therapy is possible with alexithymic-discrepant couples, and he emphasised that the treatment will need to differ from traditional forms of couple therapy. Furthermore, Swiller (1988) cautioned that the process will be slow, often tedious, and that therapists will need to accept that a large part of their role will be as a teacher because much remedial emotional education will be required with the highly alexithymic partner. In this, Swiller (1988) suggested that the alexithymic partner also engage in individual and group therapy to assist the relationship therapy.

Experientially, I have found that when treating an alexithymic-discrepant couple, both partners are usually willing for the alexithymic partner to have individual sessions as an adjunct to the couple sessions. If the therapist is familiar with the alexithymia construct, and has developed a good therapeutic alliance with the highly alexithymic partner, it seems most beneficial for this structure to occur with the same therapist. Understandably, the topic of individual therapy would not be raised until careful observation and accurate assessment have been conducted, the partners have received psychoeducation about the alexithymia-related base to their issues, the couple and the therapist have established a sound rapport, and the relationship therapy has achieved a decrease in the partners' initial high levels of distress and/or fear.

Furthermore, if these couples have been struggling with their distress for a lengthy period, the partners can present as quite defeated. The act of explaining the true nature of their difficulties whilst empathising with their experiences can be a powerful intervention in itself. This can provide an early change-point within the therapy, and the husbands and wives will generally express relief at being able to make sense of how, and why, their relationship has functioned as it has. Therapists could find, however, that as the partners settle into the therapeutic process, and begin to address their issues through expressing their personal thoughts, feelings, and perspectives, the sessions will become much more lively and active.

Within such activity, therapists can anticipate that, as both partners start to understand each other's perspectives, there will likely be times of increased distress. This distress could be based on the alexithymic partner revealing a range of characteristics and views that can be upsetting for the more emotionally attuned partner. For example, it may become evident that the alexithymic spouse has discomfort with closeness with others, a deep-seated lack of confidence, a need for approval, and a view of close relationships as secondary aspects in life (Montebarocci et al., 2004; Triosi et al., 2001). Furthermore, the highly alexithymic partner may also seem to have self-centredness, lower self-sacrificing and accommodation to others' needs (Vanheule et al., 2010), a tendency to be interpersonally avoidant after becoming angry (Berenbaum & Irvin, 1996), and difficulty trusting others (Cecero & Holmstrom, 1997; Taylor et al., 1996). In also having a low sense of personal responsibility, there may be high blaming of others, an inability to resolve difficult situations (Grabe et al., 2001), and a fear of separation (Mallinckrodt et al., 1998). For males, especially, there can be limited affectionate behaviour, and a fear of intimacy that is related to having a more traditional masculine gender role orientation (Fischer & Good, 1997). In addition, a high degree of Difficulty Describing

Feelings could be associated with less seeking of support from others, and a high degree of Externally Oriented Thinking could be related to engaging in less confrontation (Tominaga et al., 2014).

When listed together, these characteristics might seem disheartening; however, it is worth remembering that the characteristics listed above have been found to be *associated* with aspects of alexithymia - this does not mean that they are causal. Moreover, alexithymia is not a disorder in itself; rather, the emotional deficits can be underlying features of medical conditions, mental health disorders, and relationship issues, and they can also exist within non-clinical general population individuals. Consequently, people do not necessarily have to be highly alexithymic to exhibit the abovementioned characteristics. Importantly, the occurrence of the characteristics will be a matter of degree and individual disposition, and therefore, their presence will vary from person to person. However, as a pattern of emotionally distancing behaviours, couple therapists may benefit from awareness of the possible existence of these attributes.

In the treatment of alexithymic-discrepant couples, the discrepancy findings for the community couples seem to represent an exemplar of the pattern of effects that can occur within individuals who are highly alexithymic and have deficits across the facets of emotional difficulty. Therapists might find it of benefit to have these examples of the dynamics that can occur within, and between, alexithymic-discrepant couples.

In thinking about the findings from a relational perspective, having a significantly different degree of alexithymia difficulty to that of one's spouse is challenging for both partners because neither partner has a sense of being understood by the person with whom they share an intimate relationship. The findings for the community couples suggest that the following trajectory of effects could have been occurring: When the wives had higher Total Alexithymia than their husbands, the wives were providing minimal empathic understanding. In turn, the husbands (who had greater overall emotional awareness) responded by also providing minimal empathic understanding to their wives; this would have led to the lowering of empathy received that was found for both genders. Furthermore, in receiving a low degree of understanding from their husbands, the wives may have then responded to their partners with disinterest, preoccupation (turning away), argumentativeness, and criticism (turning against). Consequently, the couples would have had a higher number of negative interactions than positive interactions, which would then lead to the wives having the lower positive emotional connection to their husbands. Of note is that wives' positive emotional connection

was also compromised when their husbands had the higher level of Total Alexithymia, which may indicate that a similar, yet less dominant, dynamic was occurring. Therefore, it seems plausible that the Total Alexithymia discrepancies produced a negative interpersonal pattern that occurred due to an accumulation of disappointing everyday interactions between the partners (e.g., Gottman & DeClaire, 2001).

With the findings for the husbands, it appears that when the husbands were less able than their wives to identify what they were feeling, they provided and received less empathic understanding. When husbands also had the greater difficulty expressing their feelings, this too adversely affected the empathy they provided and received, and they responded to their wives with less positive interest (turning toward), and greater disinterest and preoccupation (turning away). Partner discrepancies in externally oriented thinking also increased the husbands' disinterest and preoccupation (turning away), and when they had the higher degree of external focus, their argumentativeness and criticism (turning against) increased.

In view of these discrepancy results found with the community partners, and the similarities and differences between the two groups, the findings appear to add support to the proposal that there is merit in utilising empathy and emotional connection interventions to assist in therapy with couples who have alexithymia discrepancies. In requiring only motivation, interest, and application, rather than emotion-related awareness and competence, these interventions have the potential to provide a sense of achievement and self-esteem for the alexithymic spouse, a sense of emotional fulfilment for the more emotionally aware spouse, and a higher level of relationship satisfaction for both partners. By redirecting their relational focus, and changing their response styles, couples will then have the means through which their negative interaction patterns can be interrupted, which is consistent with Gottman (1999) who emphasised the importance of spouses' abilities to repair their conflict through empathy and turning toward each other.

In order to examine further the viability of employing these interventions, there was a need to investigate whether the partners' empathy and emotional connection indicators mediated the association between their alexithymia and relationship dissatisfaction. In doing so, the purpose was to test whether an ideal model would emerge that could have application with alexithymic-discrepant partners. The size of the clinical couple sample did not allow for testing of these effects; however, the large sample of community couples could be assessed in this way through the use of Structural Equation Modeling; the findings were evaluated against an alpha level of .05.

Structural Equation Modeling (SEM)

Within the previous community couples' research, a number of the studies examined the association between alexithymia and relationship dissatisfaction; however, in doing so, the analytical strategies utilised have varied. Although path analysis was employed by Eid and Boucher (2012), Frye and Feistman (2010), and Humphreys et al. (2012), this was aimed at examining associations rather than specific mediation effects. In the research testing mediation effects, four of the studies employed regressions to assess the relationships (e.g., Cordova et al., 2005; Dunham, 2008; Mirgain & Cordova, 2007; Wachs & Cordova, 2007). One study, by Frye-Cox and Hesse (2013), appears to be the closest approximation to the current SEM method in that the authors accounted for data relatedness, analysed males and females separately (through the AMOS program), and tested both the direct and indirect pathways.

The SEM conducted in the current study examined whether husbands', and wives', Empathy Provided, Empathy Received, Turn Toward, Turn Away, Turn Against, and Positive Emotional Connection, mediated the association between Total Alexithymia and Relationship Dissatisfaction. Within the analyses, seven possible competing models were evaluated, and one model emerged as optimal in terms of the fit statistics and the Akaike Information Criterion (AIC; Akaike, 1974). The direct and indirect effects for that model were then investigated.

The findings for the direct effects indicated that the husbands had three complete pathways that ran from Total Alexithymia to Relationship Dissatisfaction. One pathway was through Empathy Provided leading to Positive Emotional Connection, a second pathway was through Empathy Received to Turn Away, and a third pathway was through Empathy Received to Positive Emotional Connection. For wives, there were two complete pathways from Alexithymia to Relationship Dissatisfaction. One pathway was through Empathy Received to Turn Away, and the second pathway was through Empathy Received to Turn Against.

However, after analysing the *indirect* effects, different results were found for both the husbands and the wives. For husbands, two complete mediation pathways remained; one pathway ran from higher Total Alexithymia to lower Empathy Received, leading to higher Turn Away, which then led to higher Relationship Dissatisfaction. The second pathway went from higher Total Alexithymia to lower Empathy Received, leading to lower Positive Emotional Connection, which then led to higher Relationship Dissatisfaction.

Testing of the wives' indirect effects found that they no longer had any complete mediation pathways. Although their Total Alexithymia led to lower Empathy Received, which then led to lower Turn Toward, and lower Positive Emotional Connection, the pathways to Relationship Dissatisfaction did not reach significance.

From an analytical standpoint, these findings highlight the importance of taking the additional step of testing indirect effects when examining potential mediating variables, which is apparent from the differing results that were obtained based on which effect was assessed.

The findings also verify that for both spouses, the trajectory of influence ran from their Total Alexithymia to a decrease in Empathy Received, which then affected their emotional connection behaviours. It was shown that these effects were stronger for husbands than for wives. Of further relevance is that for both genders, lower Empathy Received led to lower Positive Emotional Connection; however, where husbands' lower Empathy Received also increased their Turn Away behaviours, wives' lower Empathy Received decreased the more positive Turn Toward behaviours. Given that the most destructive interaction pattern for couples is unrequited turning, the results indicate that the empathic understanding received by partners is a key element of influence in that negative pattern.

The mediation results have provided confirmatory evidence that supports many of the previous findings in the current research; however, the evidence must be regarded as preliminary because the data were cross-sectional rather than longitudinal, which is preferred when testing structural models that are causal in nature (Cole & Maxwell, 2003).

Therapeutic Implications - SEM

As shown, the SEM did reveal an optimal model clearly identifying that the association between Total Alexithymia and Relationship Dissatisfaction is mediated firstly by empathy, and secondly by emotional connection indices. The effects were stronger for husbands than they were for wives; however, for both spouses, Empathy Received was pivotal in the process.

It seems clear that treatment with alexithymic-discrepant partners requires changes in the therapeutic approach and the types of interventions that are implemented. Although the mediation findings were based on the community couples' data, they offer further support for the benefits of utilising empathy and emotional connection behaviours as therapeutic targets with alexithymic-discrepant couple partners. Therefore, through linking the behaviourally based aspects of empathy and emotional connection, these couple partners can be assisted in

finding compatible ways of relating to each other that are not reliant on emotional capacity. Although these interventions could be utilised with all couples, they may represent relatively simple, yet achievable, methods of easing the impact of the partners' alexithymia deficits and discrepancies. This could be through creating a new positive style of interacting that prevents the destructive communication pattern of unrequited turning, which may ultimately increase the sense of connection and satisfaction within their relationships.

There is little doubt that the clinical issues involved in the treatment of alexithymic-discrepant couples will be complex and challenging for both the clients and the therapist. In view of the clinical focus of this research, and the numerous findings that have emerged from the two studies with couples, it is important to transfer the associated knowledge to the therapeutic setting. This is with a view to providing beneficial direction to therapists in their treatment of alexithymic-discrepant couples, and to some extent, individuals with high alexithymia. However, in order for the information to be of value, therapists first need to be aware of alexithymia, and have some understanding of the broader construct. Although it seems obvious that this is of fundamental clinical importance, the degree to which therapists are familiar with the construct has not been previously examined. Hence, this issue was investigated in the third study, and the findings are discussed in the next section.

Therapist Interviews

Having obtained evidence about alexithymia from the perspective of couples having therapy, the interviews held with couple therapists focused on the perspective of the clinician. Although assessing therapists' knowledge about alexithymia was of central importance, associated information was gathered on their observations and experiences with highly alexithymic individuals, and alexithymic-discrepant couples. This data may assist therapists regarding possible features that may be encountered with these clients.

The examination of therapists' awareness and knowledge of alexithymia aligns with Gurman (2011), who proposed that, when considering sources of influence in treatment outcomes, insufficient attention has been paid to the couple therapist herself/himself (p. 280). Whilst there appears to have been no direct discussion of this issue within the alexithymia literature, it was indirectly alluded to in 1991 with the statement that the alexithymia construct "is relatively unknown to clinical psychologists" (Bagby et al., 1991a, p. 222).

In addressing this longstanding empirical absence, the scope of the investigation was broadened to include therapists who have qualifications other than in clinical psychology.

Whilst the interviews gathered information on a range of aspects relating to alexithymia, the main purposes of the study were to examine therapists' clinical recognition and observations of the emotion-related *features* of alexithymia, their knowledge of the alexithymia term, understanding of the construct, and the impact of alexithymia on the progress of couple therapy.

The findings were also evaluated in terms of therapist gender and qualification. With regard to the therapists' qualifications, the groups were collapsed to form the three categories of 'clinical psychologist', 'counselling psychologist', and 'other therapist'. Within the interview structure, a funnel approach was taken whereby the questions progressed from obtaining general to specific information. The findings below are discussed in the order in which the questions were asked during the interviews.

Therapist Sample Characteristics

The therapist sample was drawn from the group of practitioners who had been approached about referring their clients to the clinical couple study. This resulted in a therapist sample that included clinicians who were treating those couples, which enabled a degree of cross-validation of the findings. In total, the study comprised 61 practitioners of whom 41% were male and 59% were female. The majority of the therapists held postgraduate qualifications in psychology, and their duration of clinical practise spanned two to 36 years. Hence, the sample was well represented in terms of gender, qualifications, and clinical experience.

Therapist Interview Findings

This study found evidence that, independent of awareness and knowledge of alexithymia, the greater majority of therapists did recognise in their clients the features of Difficulty Identifying Feelings, Difficulty Describing Feelings, Limited Inner Reflection, Lack of Emotional Insight, and Externally Oriented Thinking. Furthermore, as a cluster of features occurring within individuals, therapists observed high percentages of clients who presented with this constellation of emotional deficits. These findings support Taylor and Bagby (2013), who suggested that, although experienced therapists may not be aware of the alexithymia construct, they will be able to identify the characteristics in their patients. Of note is that the therapists' reported observations show some consistency with the high prevalence rates of alexithymia found in the clinical husbands and wives.

The majority of therapists observed the features in males rather than in females; however, a proportion of clinicians acknowledged that female clients are equally likely to have the

emotional deficits. This supports the gender difference findings from the general and relational alexithymia literature, and importantly, suggests that the therapists were not biased by implicit traditional stereotyping of males being consistently less emotionally competent than females.

Partner discrepancies in the alexithymia features were observed by an overwhelming majority of therapists (i.e., approximately 98%). This finding has some congruence with the comparative analyses in the current research in which, compared to community partners, clinical partners were found to have larger discrepancies in their Difficulty Describing Feelings.

The findings for the therapists' observations of the alexithymia components are encouraging because the ability to recognise when their clients are struggling with serious emotion-related difficulties affects the welfare of clients, the treatments that are employed, and the therapeutic outcomes. Furthermore, therapists' awareness of couple partners' emotion-related discrepancies provides support for Swiller (1988), and Yelsma and Marrow (2003), regarding the presence of alexithymia differences within couples. Moreover, given that the therapists' observations were of couples having relationship therapy, the findings verify Gottman's (1999) proposal that marital difficulties occur in couples whose partners are emotionally mismatched.

Somewhat less encouraging, however, are the findings that, despite the therapists' recognition of the alexithymia-related features in their clients', the majority had not heard of the term 'alexithymia'. Given the therapists' ratings of the alexithymia features observed in their individual and couple clients, these findings are concerning as they suggest that most of the clinicians were not aware of the meaning of their clients' emotional difficulties.

Of the three qualification groups, a significantly greater number of clinical psychologists were aware of the alexithymia term than were counselling psychologists and therapists in the 'other' group. However, despite this awareness, the three groups did not differ in their understanding of the construct. Of the therapists who had heard of alexithymia, the majority had a moderate degree of understanding of the construct, and only one therapist had a comprehensive understanding of alexithymia. These findings somewhat refute the statement by Bagby et al. (1991a), who suggested that alexithymia is largely unknown to clinical psychologists, and they provide some measure of optimism in that alexithymia has now become better known within this therapeutic community; however, given the time-frame of that statement, one would hope that some change had occurred.

In all of the interview study's investigations discussed thus far, therapist gender and qualification differences were also examined. Although there were no differences between male and female therapists in any of findings, differences did emerge within the qualification groups. Compared to the clinical psychologist group, therapists in the 'other' group showed significantly higher observations of clients' Limited Inner Reflection, as well as the percentage of clients in whom the emotional features occurred as a cluster. It might be that the disparity is due to the different kinds of training received by the two groups. Where the focus for clinical psychologists may be directed mainly toward client assessment, diagnosis, formulation, and specific treatment of conditions, the therapists in the 'other' group may have a greater focus on less clinical aspects of treatment. Although the qualification group differences would benefit from further clarification, the findings do offer evidence that the therapists were aware of the alexithymia deficits in their clients.

With regard to the therapists who had heard of alexithymia, it was found that they had obtained their knowledge primarily from reading the literature. Notably, only one therapist had learned about alexithymia from clinical training. The findings associated with this issue indicate that very little formal education about alexithymia is available, and that greater advancement is required to address therapists' lack of awareness and understanding of the construct.

Furthermore, it appears that when the therapists did have understanding of alexithymia, minimal clinical assessment took place, and no formal assessment occurred. The lack of formal assessment of alexithymia is likely due to therapists' lack of awareness of the TAS-20 measure, which provides reliable and valid measurement of the construct.

Therapists who had some understanding of alexithymia were asked to reflect on their experiences of working with couples whose partners had marked differences in the emotional difficulties (that is, alexithymic-discrepant couples). Therapists' responses indicate that the emotional deficits have a range of adverse effects on therapeutic progress. The responses offer strong support for the literature regarding alexithymia being a fundamental aspect in therapy, difficult to treat successfully, an impediment that slows the therapy, difficult for the therapist, that modifications to treatment are necessary, and that individual work may be needed with the highly alexithymic partner (e.g., Krystal, 1979, 1988; Swiller, 1988; Taylor, 1977; Taylor et al., 1997b).

Overall, this study discovered some encouraging aspects pertaining to the issue of therapists' knowledge of alexithymia; however, of concern is the low number of clinicians

who were aware of the term and understood the construct. When contemplating the therapists' observed prevalence of their clients' alexithymia-related difficulties, and the reported impediments that the deficits had on couples' therapy progress, it appears that therapists' lack of knowledge about alexithymia may be an important yet previously unrecognised source of influence in couple therapy outcomes.

Therapeutic Implications – Therapist Interviews

It seems clear that the most important aspect to emerge from the findings is that of therapists' lack of awareness of alexithymia. As has been shown throughout the thesis, the implications of this are numerous in terms of detrimental effects on clients, therapists, and therapeutic outcomes. The importance of these effects is emphasised by the substantial prevalence rates of high alexithymia that were found in the clinical husbands and wives, which suggest that therapists are, or have been, working with couples who have the presence of the deficits. Furthermore, all of the clinical couples were clients of therapists who took part in the interview study, which indicates that many of the practitioners were not fully aware of the basis of some of their clients' issues.

To assist therapists, a note is warranted regarding assessment of alexithymia. The Toronto Alexithymia Scale (TAS-20) is considered the 'gold standard' in the measurement of alexithymia. It is a reliable and valid questionnaire, relatively brief, easy to use and score, and inexpensive to purchase (see page 420 for contact details on purchasing the scale).

I encourage the clinical use of this measure because it provides therapists with the means to introduce the topic of emotional difficulties to clients, gain an accurate evaluation of the level of alexithymia that is present, and explore clients' emotional histories; this is especially so if the therapist and the client(s) go through the items together. In addition, once it has been utilised with clients, it establishes a benchmark against which progress can be measured.

Based on the evidence found, it seems incumbent upon therapists to become better educated about the alexithymia construct, and to apply this knowledge within their clinical practise. Although there appears to be very little formal training available on alexithymia, information can be easily obtained through utilising computer based search engines. Furthermore, the clinical interviews have provided a guide to aspects that may be encountered within the therapeutic setting, and the information within the thesis can serve as a resource.

Having now completed the discussion of the studies' findings and their potential therapeutic implications, the final sections comprise the research strengths and limitations, future directions, overall implications, concluding comments, and final thoughts.

Strengths and Limitations of the Research

Strengths of the Research

This research sought to provide a range of unique perspectives and findings to the relational and clinical areas of alexithymia. A number of important gaps in the associated literature were identified and addressed, with the main strength being the clinical focus of the project.

Each study was carefully designed and ethically sound, and empirical rigor was increased by applying adjusted Bonferroni alpha levels to many of the findings. Furthermore, the statistical issue of dyadic nonindependence was accounted for, practical guidance and specific analytical syntax were provided to assist other researchers, and the two-intercept model was successfully adapted to accommodate post hoc testing of factor discrepancies.

A triadic approach was employed to examine alexithymia within the samples of community couples, clinical couples, and couple therapists. In addition to the wealth of information that this approach provided, it facilitated a degree of cross-validation between the studies. This was achieved by having the community couples in Study 1 as a foundational couple sample, which enabled comparisons to be made with the clinical couples in Study 2. Additionally, the therapist sample in Study 3 included all of the therapists whose couple clients took part in Study 2.

Conceptually, the research was based on identifying variables that are important to both alexithymia and couples' relationship dissatisfaction, and linking alexithymia to the poor long-term treatment outcomes that have been found in couple therapy. Given the emotion-related deficits of alexithymia, and the importance of emotion in couples' relationships, the aim was for the identified variables to have behavioural components that could be utilised in therapy to improve the relationships of alexithymic-discrepant couples. The associated behaviours needed to be achievable for highly alexithymic partners, and able to have a fulfilling effect for more emotionally competent partners. Essentially, the idea was to provide these couples with a behavioural means to achieve an emotion-related outcome, thereby satisfying the capabilities and needs of both partners. In this, empathy and emotional connection were chosen because their behavioural components accomplished all of the criteria.

A new model of empathy was introduced to the alexithymia literature that extended the previous research on empathy provided by including the aspect of empathy received (e.g.,

Barrett-Lennard, 1986). The inclusion of emotional connection also represented an empirical addition to the field of alexithymia, and this was based on the emotional Bank Account Model proposed by Gottman (1999). Because there was no available measure of the emotional connection components, a questionnaire was developed for the research.

The large sample of community couples enabled the expansion of previous findings due to facilitating the testing of personal and relational perspectives, predictive assessment of partners' alexithymia discrepancies, and identification of a model that verified the mediation effects of empathy and emotional connection.

The study with clinical couples appears to be the first research to examine alexithymia in couples who have entered relationship therapy. Although the low sample size prevented a more comprehensive investigation, it did enable information to be gathered that will be of value within the therapeutic domain. This is with regard to alexithymia prevalence rates in therapy couples, personal and interpersonal associations between the variables, and comparisons of similarities and differences between the two couple groups.

In both of the studies with couples, information was obtained on their demographic details, response styles, and appraisals of their partners and relationships. This data allowed assessment of contextual similarities and differences between the two couple groups, which enriched the interpretations of the findings, and may be of value in the clinical setting.

The study with relationship therapists also appears to be the first such research, and it has provided new information to the clinical field by examining therapists' knowledge of alexithymia as a potential source of influence in couple therapy outcomes.

In addition, this project has established a strong base from which future research can benefit in advancing the knowledge associated with alexithymia, couples, and issues related to couple therapy.

Limitations of the Research

The most apparent limitation in the research was the small sample size of clinical couples that was able to be recruited, and this was despite lengthy and diligent attempts to obtain a larger sample. Although the intermediary nature of the recruitment did produce challenges to the process, I remain unsure of an alternative method that would have provided similar ethical and client safety protocols whilst attaining a better outcome.

Another limitation is that, in the couple studies, all of the measures were self-report. Although the empathy and emotional connection questionnaires were able to obtain 'self' and

‘other’ perceptions, a multi-method approach would have been ideal; however, adopting this method was beyond the scope and resources of the research.

The data utilised in the SEM analyses were cross-sectional rather than longitudinal. This represents a limitation because, although SEM does not require longitudinal data if testing a measurement model, when testing a structural model (as was done in this research), longitudinal data is preferable to cross-sectional data because structural models are causal (e.g., Cole & Maxwell, 2003).

Directions for Future Research

The current research has established that alexithymia is an important construct within couples’ relationships, and that therapists’ knowledge of the construct is a factor to be considered in treatment outcomes. It has also provided support for previous literature indicating that alexithymia adversely affects empathy, emotional connection, and relationship satisfaction. Because the combination of variables studied in this research is new to the field, empirical replication is warranted.

Although it is of interest to have knowledge about community samples of couples, the clinical field would benefit most from further research with couples who have recently entered relationship therapy, especially if larger samples could be obtained. Because of the importance of continuing the investigation of alexithymia and clinical couples, the issue of recruitment requires thoughtful consideration. It may be that Australian therapists are particularly reticent in referring their clients to research projects, and it would be of interest to know if therapists from other countries share this attitude.

In applying the research findings to clinical settings, it would be of value to test the associations found in the mediation analyses based on use of the interventions with couples. This would enable longitudinal data to be gathered, and help to establish the legitimacy of applying the empathy and emotional connection variables in treatment with alexithymic-discrepant couples. In doing so, it would be important to employ modeling techniques, such as SEM, that test both direct and indirect effects.

Given the potential for serious treatment consequences due to therapists’ lack of knowledge about alexithymia, replication of the therapist interview study with larger samples, and across different countries, would clarify the extent of this deficit. Future research also needs to establish effective ways of encouraging and promoting awareness of alexithymia in therapists.

It would be gratifying to see replication of the studies take place. My respectful suggestion is that single research students do not undertake the project in its entirety. The optimal scenario may be for a number of postgraduate students to each conduct a part of the research. Alternatively, interested research groups with suitable resources might consider adopting the project into their emotion-based programs.

Overall Implications of the Research

Within the literature, the area of alexithymia and couples' relationships has received comparatively little empirical attention. To date, it seems that the studies have all sampled general community couples, which has resulted in a scarcity of information and guidance for therapists treating couples who have alexithymia-related issues. In association with this absence, the extent to which therapists are aware of alexithymia has also been unknown. The current research has extended the previous findings with community couples, and has initiated empirical attention toward both of these clinical deficits.

In addressing the clinical deficits, the research has contributed new conceptual and empirical knowledge to the alexithymia literature, and it has opened up new lines of enquiry for the field. Associations between the variables of interest have been investigated from a number of perspectives, which has provided information that is applicable across the areas of alexithymia, empathy, emotional connection, and relationship satisfaction.

Through investigating community couples and clinical couples, the research was afforded the opportunity of obtaining comparative information about these two groups of couples. It is of value for practitioners to know whether couples who present for relationship therapy are similar to, or different from, couples who do not seek such help. The findings have provided some answers to this, and have revealed that there are both similarities and differences between the groups, and between the partners within the groups.

The findings for the therapist interview study indicate that the majority of couple therapists are not aware of the alexithymia term or its meaning. Given the pivotal role that therapists have in the treatment process, the findings are of concern. They represent a significant gap in the knowledge base of therapists, and that lack of knowledge has important implications for the clinicians themselves, their clients, and the therapeutic outcomes that can be achieved. In view of such evidence, however, there is potential for change to occur.

In its entirety, there is also potential for the research, and this thesis, to serve as a valuable resource from which therapists, individual and couple clients, treatment outcomes, and future researchers may benefit.

Conclusions

Within happy intimate relationships, the couple partners are well matched emotionally, their day-to-day interactions contain empathic understanding of each other, and they have a sense of emotional connection that has been built through consistent gestures of interest and friendship, and minimal behaviours that are dismissive and critical. In contrast, unhappy couple relationships generally contain few of these positive elements (e.g., Gottman, 1998, 1999; Gottman & DeClaire, 2001). The findings that empathy and emotional connection behaviours can distinguish happy and unhappy couples suggest that relationships can be improved by strengthening the partners' understanding of each other, and by increasing their positive responses to bids for emotional closeness.

Alexithymia is understood to involve emotional deficits that hinder empathy, emotional connection, and the ability to maintain satisfying intimate relationships, and it is particularly problematic when couple partners differ in their levels of the emotional difficulties (e.g., Swiller, 1988). The current research found consistent evidence to support this position, with the findings spanning community couples, and clinical couples who were having relationship therapy.

Key findings emerged from the research indicating that community and clinical couples have similarities and differences in the ways in which alexithymia affects their empathy, emotional connection, and relationship dissatisfaction. Similarly, it was found that the groups did not differ in their degrees of alexithymia difficulty. Also, partners' own alexithymia deficits were more powerful influences on their own empathy, emotional connection, and relationship dissatisfaction, than were their spouses' alexithymia deficits. In both groups, husbands had higher Externally Oriented Thinking than wives, and they also received greater empathy than their wives.

In contrast to the community partners, a greater number of clinical partners had a pattern of unsuccessful cohabiting relationships, were more distressed, had negative views of their spouses and relationships, had higher reactivity toward each other, and for husbands, there was greater defensiveness and resistance to addressing their marital issues.

With alexithymia, a significantly greater proportion of clinical than community couples had a high level of alexithymia; however, where the community husbands were higher than their wives in most of the alexithymia features, there were no such gender differences for the clinical partners. The effects of spouses' alexithymia discrepancies were found to be largely

dependent on one partner having a higher degree of the particular emotional difficulty than the other partner, and clinical couples had the larger discrepancies in Total Alexithymia and Difficulty Describing Feelings when wives were higher in these deficits.

Furthermore, community partners showed much more personal and interpersonal relatedness between their alexithymia and outcome variables than did clinical partners. In fact, the impression is that the community partners were experiencing a great deal of internal and relational activity, whereas the clinical partners seemed quite devitalised. This group disparity may indicate that, by the time couples seek professional help, the partners have reached a stage of having flattened affect and a sense of despondency about their relationships. This notion is somewhat supported by the findings that, compared to the community couples, the clinical couples had significantly lower empathy provided, empathy received, turn toward, and positive emotional connection, and higher turn against, and relationship dissatisfaction.

It can be seen that there were consistent findings of alexithymia having a significant role in couple partners' relational outcomes; however, the influence was mostly on the empathy and emotional connection indices rather than on relationship dissatisfaction. This suggested that the association between alexithymia and relationship dissatisfaction might operate indirectly through empathy and/or emotional connection behaviours.

The testing of indirect effects in the community couples found that this does appear to be the case, especially with the husbands who had two complete mediation pathways. Of interest here is that, although the wives' pathways did not reach significance for relationship dissatisfaction, for both the husbands and the wives, higher alexithymia predicted lower empathy received, which predicted lower positive emotional connection. However, for husbands, empathy received also predicted a higher degree of turning away behaviours, whereas for the wives, it predicted a lower degree of turning toward behaviors. These results may reflect the destructive dynamic of unrequited turning where one partner constantly turns toward the other in a bid for closeness, and the other partner constantly responds by turning away. As a point of interest, this pattern was found in the community couples, whose results displayed a great deal of adverse personal and interpersonal influence between the alexithymia and outcome variables. It may be that these couples provided a snapshot of the interactions that occur prior to couples needing to seek professional help. This point notwithstanding, the findings emphasise the importance for both genders of alexithymia, empathy received, and having a sense of positive emotional connection to one's partner.

They also provide preliminary, yet strong, support for the therapeutic benefits of utilising empathy and emotional connection behaviours within the clinical setting when treating alexithymic-discrepant couples.

This notion is based on the view that if alexithymia is an issue of concern within a couple's relationship, it does not need to be the aspect that severely disrupts that union. Rather, the ways in which the couple negotiates the emotional difficulties can determine their effects. In view of the evidence demonstrating the importance of empathy received, turn toward, turn away, and positive emotional connection, it is proposed that therapists could teach alexithymic-discrepant couples the skills of reflective listening to improve their empathic understanding, and partner-specific turning toward behaviours to enhance their positive emotional connection. This, in turn, may result in greater satisfaction within their relationships.

Therapeutically, these interventions are achievable with alexithymic-discrepant couples; however, clinical experience dictates that they do require the couple partners to be motivated and willing to change their response styles. Of course, in order for therapists to see the benefits of implementing these treatment methods, they first need to be aware of alexithymia, and the detrimental effects that the deficits can have on individuals, and on couples' relationships.

Importantly, this research found that the majority of couple therapists had not heard of alexithymia. Furthermore, of the therapists who had heard the term, the majority did not fully understand the meaning of the construct. Although clinical psychologists were more aware of the term than were counselling psychologists and 'other' therapists, their understanding was no greater than that of the other two practitioner groups.

This evidence suggests that therapists who are treating individuals or couples for whom alexithymia is problematic are not fully cognisant of the true nature of the issue requiring treatment. Moreover, their lack of alexithymia knowledge may account for the proportion of couples whose partners do not gain equal benefit from having therapy (Bambling, 2007), and it is likely to be an influential factor in couples' poor therapy outcomes.

To address the issue of therapists' lack of awareness of alexithymia, action is required in terms of educating future and current clinicians about this emotion-related construct, and the implications it has for individuals, relationships, and therapeutic treatment. In view of the finding that only one of 61 therapists had learnt of alexithymia through 'training', it would seem prudent to begin such instruction at the 'grass roots' level. This would require

institutions involved in the training of therapists to include the topic of alexithymia within their clinical programs. Exemplars of transforming research findings into clinical benefits can be seen in the medical profession: Improvements in treatment outcomes have been found with medical residents who have been taught communication skills (Cinar et al., 2012), and with doctors who have received empathy education in their training (Ogle, Bushnell, & Caputi, 2013). Due to the wide-ranging adverse influences of alexithymia, my belief is that there is an ethical imperative to adopt a similar process with trainees who attend psychologically-based higher education.

Final Thoughts

Despite the complexity of this research, I offer some uncomplicated ideas that can be taken from it. For couples who are struggling with alexithymia difficulties, it can help to keep in mind that a highly alexithymic partner will not be able to provide emotion-based attention and understanding. Therefore, the more emotionally attuned spouse need not view this as a personal rejection, or a lack of interest and commitment. It really is a case of can't rather than won't.

Additionally, most couples eventually need to negotiate an issue that has the potential to divide the partners and disrupt the relationship. Therefore, regardless of alexithymia-related differences, intimate relationships can benefit from the partners knowing each other a little better. This is achieved by actively seeking to understand the other's point of view from an empathically accepting perspective. Differences cannot be resolved until each person understands what is being negotiated. In this, it is not about 'right and wrong' or 'winning and losing' - it is about partners listening to, and showing a genuine interest in, each other, and then uniting in an agreement that satisfies at least some of the needs of each person. When this is done through consistently turning toward a partner in the spirit of acceptance and friendship, and with interested involvement, there will eventually be a sense of positive connection. This, in turn, will improve the quality of the relationship. Focusing on some unattainable idealised version of the way a partnership 'should' be is folly, and is likely to bring unhappiness to both partners.

On a lighter note, Gottman (1999) suggested that, within a couple's relationship, empathy can be soothing and unifying for the couple, particularly when partners are complaining about another person. In this, they are joined together "colluding to trash a third party, for which there appears to be no more satisfying way of engendering solidarity and we-ness" (p. 9).

I would add that, although this might provide entertainment and a sense of connection in the short term, it is not recommended as a consistent way of attaining closeness.

For therapists who are working with alexithymic-discrepant partners, there will be a number of clinical challenges that are unique to this particular group of couples, and a lack of knowledge about alexithymia will compound the difficulties that occur. Therefore, a suggestion is to become better educated about alexithymia, and the influences it can exert on clients, therapists, and the therapeutic relationship. Encouragingly, if you have reached this page, the process has already begun. This is important because these clients do not progress quickly, and they can leave therapists questioning their clinical competence. The main therapeutic aspect to bear in mind is that traditional insight oriented modes of treatment will not work with people who have no words for their feelings. It is the therapist's task to teach these folk how to identify and name their feelings, and how to link these to their experiences and thoughts. This will enable them to use these elements as information and guidance in their lives and relationships.

Finally, in answering the question posed in the title of this thesis, it does indeed seem that, in the duet for life, alexithymia is a key note in couples' empathy, emotional connection, relationship dissatisfaction, and therapy outcomes.

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Appendix A

Couples' Research Package

RESEARCH INFORMATION LETTER

Please read this letter before you begin the questionnaires.

Dear Participant,

Thank you for agreeing to take part in the research I am conducting through Edith Cowan University. Your contribution is very valuable as it will lead to new knowledge in the field of couples' relationships.

As with all research such as this, the project has been examined and approved by two supervisors, two independent reviewers, and the ECU Human Research Ethics Committee.

The Survey Research Centre selected your name at random from the electronic white pages telephone directory, and made contact because I am researching the experiences of couples from the Perth general population; specifically, couples who are **not** currently having relationship counselling. In particular, I am interested in couples' emotional styles, partners' ideas of how they respond to and understand each other and a range of areas associated with couples' relationships.

Please be assured that all of the information you give will be strictly private and confidential, will be stored securely, that your participation is voluntary, and you can withdraw from the study at any time. Although the research thesis and overall findings will be published, these will be presented in such a way that no individual or couple may be identified.

Enclosed you will find a set of documents that contains a consent form and five questionnaires for you to complete and return. It should take about 45 to 60 minutes to answer all of the questions. Because one of the questionnaires has carbon paper and needs to be marked with a pen that can apply pressure, would you please use the pen provided, and feel free to keep it - with my thanks! **Please complete the questionnaires separately from your partner, without checking your answers with each other.**

For your answers to remain private, you have also received a separate 'privacy envelope' in which to place and seal your completed documents. Both partners' sealed 'privacy envelopes' may then be placed in the larger envelope provided, which you are asked to seal and post back (free of charge) to the Research Centre.

Sometimes, when partners answer questions about their relationship, awareness can be raised of areas that could benefit from some extra attention. Should this happen for you, and you would like to seek relationship counselling, please refer to the list attached to this letter for a guide to available services within the Perth metropolitan area. **Should you experience undue distress whilst answering the questions, please feel free to discontinue and withdraw from the study.** If you have any questions or concerns related to the study, you may contact me on xxxxxxxx, or my supervisors, Dr Craig Speelman or Associate Professor Lisbeth Pike, through the Edith Cowan University School of Psychology on 6304 5551.

Again, thank you very much for taking the time to be in this study. Please keep this letter for your reference. **Because the research has a specific time frame, I would appreciate it if you would complete and send back your stapled set of questionnaire documents within the next one to two weeks.** If, for any reason, you decide to not complete the questionnaires, I would appreciate the return of the documents in the envelope provided.

Yours sincerely,

.....
Pamela McNeill
PhD Candidate

June 2006

This research project has been approved by the Edith Cowan University Human Research Ethics committee.

RESEARCH CONSENT FORM

Required for Participation:

ID Code
(Office use only)

I (**please print name**) have been verbally informed about the relevant aspects of the research project on couples' relationships being conducted by Pamela McNeill, and any questions I have asked have been answered to my satisfaction. I have read the information sheet provided,

I agree to participate in this study, realising that strict confidentiality will be upheld and that I may withdraw at any time. I agree that the study data may be published provided I am not identifiable.

Signature :

Date:

Sex (M/F):

Age:

Optional:

Please indicate whether you would like to receive by post:

A summary of your responses (sent separately from those of Partner). ☐ Yes ☐ No

A summary of the general findings of the completed study. ☐ Yes ☐ No

Optional:

There is a possibility that a future research phase may occur. If this does occur, would you like to be telephoned about taking part? If yes, please tick the box below. (Your decision to take part can be made at the time of the telephone call.)

Yes, please contact me if a future research phase occurs ☐

◆ **Important: If you have asked to have information sent to you and/or you have agreed to be contacted about future research, please complete the details below.**

Name :

Address :

Tel. No(s) :

Pamela McNeill
PhD Candidate

Please return this signed form with your completed questionnaires within the next one to two weeks

For your privacy, after completing the questionnaires, please seal your documents separately from your partner by using the 'privacy envelope'.

TIPS ON ANSWERING THE QUESTIONS

As you will see, the questionnaires are divided into separate sections.

- ◆ **In answering the questions, there are no ‘right’ or ‘wrong’ responses.**
- ◆ **It is helpful to avoid giving too many ‘middle of the road’ answers on the questionnaires that have such a score range.**
- ◆ **It is usually best to be guided by the first answer that comes to mind rather than thinking too much about your response.**
- ◆ **Because you each have a separate ‘privacy envelope’ in which to seal your answers, I hope you will feel able to be as open and honest as possible.**
- ◆ **To avoid possible conflict, it is suggested that you complete the questionnaires separately and do not check your answers with your partner.**

**THE NEXT SECTION ASKS FOR YOUR VIEWS
ABOUT YOURSELF**

EMOTION STYLE QUESTIONNAIRE

The TAS-20 was utilised in this research to measure total alexithymia, and the factors of Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and Externally Oriented Thinking (ETO). For the purposes of the studies with the Community and Clinical couples, the scale was renamed 'Emotion Style Questionnaire'. Due to the copyright status of the TAS-20, permission has been granted by Dr G. J. Taylor for six representative items to be included in this appendix. Higher scores reflect higher levels of each aspect of alexithymia.

Instructions: Using the scale provided as a guide, please indicate how much you agree or disagree with each of the following statements by circling the corresponding number. Give only one answer for each statement.

Circle 1 if you STRONGLY DISAGREE

Circle 2 if you MODERATELY DISAGREE

Circle 3 if you NEITHER DISAGREE NOR AGREE

Circle 4 if you MODERATELY AGREE

Circle 5 if you STRONGLY AGREE

Difficulty Identifying Feelings

1. I am often confused about what emotion I am feeling. 1 ___ 2 ___ 3 ___ 4 ___ 5
13. I don't know what's going on inside me. 1 ___ 2 ___ 3 ___ 4 ___ 5

Difficulty Describing Feelings

2. It is difficult for me to find the right words for my feelings. 1 ___ 2 ___ 3 ___ 4 ___ 5
4. I am able to describe my feelings easily (reverse scored). 1 ___ 2 ___ 3 ___ 4 ___ 5

Externally Oriented Thinking

15. I prefer talking to people about their daily activities rather than their feelings. 1 ___ 2 ___ 3 ___ 4 ___ 5
19. I find examination of my feelings useful in solving personal problems (reverse scored). 1 ___ 2 ___ 3 ___ 4 ___ 5

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To purchase the TAS-20, contact Dr G. J. Taylor: <http://www.gtaylorpsychiatry.org/research.htm>

BARRETT-LENNARD RELATIONSHIP INVENTORY - Form MO

(48 items - Adapted from RI forms OS-M-64 and OS-F-64.)

© Godfrey T Barrett-Lennard, 1964; 1973 (OS – 64) [Date of this printing Jun 14, 1991]

The adapted Barrett-Lennard Relationship Inventory (MO) form was utilised to assess Empathy Provided to others. The adapted scale 48-item measure includes two other scales (Regard and Congruence), which were not applicable to the studies. This measure is copyrighted, and permission has been given by Dr Barrett-Lennard for representative Empathy (MO) items to be appended. The two negative (bold face items) are reverse scored, whereas the two positive (non-bold face items) are scored as dictated by participants' responses. Higher scores reflect higher Empathy Provided.

Instructions:

Below are listed various ways that one person might feel or behave in relation to another person. Please consider each numbered statement with reference to your present relationship with ____, **mentally** adding his or her name in the space provided. For example, if the other person's name was John, you would read statement #1 as "John respects me as a person".

Please mark each statement in the answer column on the **right**, according to how strongly you feel that it is true, or not true, in this relationship. *Please be sure to mark every one.* Write in a plus number (+3, +2, or +1) for each 'yes' answer, and minus numbers (-1, -2, or -3) to stand for 'no' answers. Here is the exact meaning of each answer number:-

- | | |
|--|---|
| +3: Yes(!) I strongly feel that it is true. | -1: No. I feel that it is probably untrue, or more untrue than true. |
| +2: Yes. I feel it is true. | -2: No. I feel it is not true. |
| +1: Yes. I feel that it is probably true. | -3: No(!) I strongly feel that it is not true. |

-
- _____ 5. I understand ____'s words but do not know how he/she actually feels inside.
- _____ 20. Sometimes I think that ____ feels a certain way, because that's the way I feel myself.
- _____ 23. I can tell what ____ means, even when he/she has difficulty in saying it.
- _____ 47. When _____ is hurt or upset, I can recognise just how he/she feels, *without* getting upset myself.

Dr Barrett-Lennard may be contacted at: gt_barrett-lennard@iinet.net.au

**THE NEXT SECTION ASKS FOR YOUR VIEWS
ABOUT YOUR PARTNER**

BARRETT-LENNARD RELATIONSHIP INVENTORY - Form OS

(48 items - Adapted from RI forms OS-M-64 and OS-F-64.)

© Godfrey T Barrett-Lennard, 1964; 1973 (OS – 64) [Date of this printing Jun 14, 1991]

The adapted Barrett-Lennard Relationship Inventory (OS) form was utilised to assess Empathy Received from others. The items are matched to those in the MO form. The adapted scale 48-item measure includes two other scales (Regard and Congruence), which were not applicable to the studies. This measure is copyrighted, and permission has been given by Dr Barrett-Lennard for representative Empathy (OS) items to be appended. The two negative (bold face items) are reverse scored, whereas the two positive (non-bold face items) are scored as dictated by participants' responses. Higher scores reflect higher Empathy Received.

Instructions:

Below are listed various ways that one person might feel or behave in relation to another person. Please consider each numbered statement with reference to your present relationship with ____, **mentally** adding his or her name in the space provided. For example, if the other person's name was John, you would read statement #1 as "John respects me as a person".

Please mark each statement in the answer column on the **right**, according to how strongly you feel that it is true, or not true, in this relationship. *Please be sure to mark every one.* Write in a plus number (+3, +2, or +1) for each 'yes' answer, and minus numbers (-1, -2, or -3) to stand for 'no' answers. Here is the exact meaning of each answer number:-

+3: Yes(!) I strongly feel that it is true.

-1: No. I feel that it is probably untrue, or more untrue than true.

+2: Yes. I feel it is true.

-2: No. I feel it is not true.

+1: Yes. I feel that it is probably true.

-3: No(!) I strongly feel that it is not true.

ANSWER

5. ____ may understand my words but he/she does not see the way I feel..... ____

20. Sometimes ____ thinks that I feel a certain way, because that's the way he/she feels..... ____

23. ____ realises what I mean even when I have difficulty saying it ____

47. When I am hurt or upset ____ can recognise my feelings exactly, without becoming upset too..... ____

Dr Barrett-Lennard may be contacted at: gt_barrett-lennard@iinet.net.au

**THE NEXT SECTION ASKS FOR YOUR VIEWS
ABOUT YOUR RELATIONSHIP**

- ◆ **The first sheet has some general relationship questions about how you and your partner are toward each other.**
- ◆ **The final questionnaire has carbon paper in the centre and needs use of a pen that can apply pressure. (Please answer the questions on the front and back without taking apart the sheets.)**

GENERAL RELATIONSHIP QUESTIONNAIRE

Instructions: Using the scale provided, please indicate how much you **agree or disagree** with each of the following statements by **circling** the number that applies for you.
Please respond to all statements and give only one answer for each.

Circle 1 if you **STRONGLY DISAGREE**
Circle 2 if you **MODERATELY DISAGREE**
Circle 3 if you **NEITHER DISAGREE NOR AGREE**
Circle 4 if you **MODERATELY AGREE**
Circle 5 if you **STRONGLY AGREE**

1. Throughout our everyday life, I generally respond to my partner in a positive and interested way. 1 ____ 2 ____ 3 ____ 4 ____ 5
2. Throughout our everyday life, my partner generally responds to me in a positive and interested way. 1 ____ 2 ____ 3 ____ 4 ____ 5
3. I usually respond to my partner by ignoring her/him or acting disinterested or preoccupied. 1 ____ 2 ____ 3 ____ 4 ____ 5
4. My partner usually responds to me by ignoring me or acting disinterested or preoccupied. 1 ____ 2 ____ 3 ____ 4 ____ 5
5. In general, I respond to my partner in a critical and argumentative way. 1 ____ 2 ____ 3 ____ 4 ____ 5
6. In general, my partner responds to me in a critical and argumentative way. 1 ____ 2 ____ 3 ____ 4 ____ 5
7. Overall, my partner and I have more positive than negative interactions with each other. 1 ____ 2 ____ 3 ____ 4 ____ 5
8. I feel emotionally connected in a positive way to my partner. 1 ____ 2 ____ 3 ____ 4 ____ 5

MARITAL SATISFACTION INVENTORY REVISED (MSI-R)

Global Distress Scale

Due to the copyright status of the MSI-R, permission has been granted by Western Psychological Services (WPS) for five items to be included in this appendix.

The five items are representative examples of the Global Distress Scale, which was utilised in this research to measure couples relationship dissatisfaction. Negatively keyed items reflect higher satisfaction and positively keyed items reflect higher dissatisfaction with the relationship. The responses are based on 'yes' or 'no' answers.

- Item 16 “There are many things about our relationship that please me.” (Negatively keyed.)
- Item 21 “Our relationship has been very satisfying.” (Negatively keyed.)
- Item 53 “Our relationship has been disappointing in many ways.” (Positively keyed.)
- Item 90 “I have important needs in our relationship that are not being met.” (Positively keyed.)
- Item 95 “There are some serious difficulties in our relationship.” (Positively keyed.)

For purchase of the MSI-R, contact WPS: www.wpspublish.com

FINAL WORDS

- ◆ **Finally, please accept my sincere thanks for taking part in this study. Your contribution is of great value and is appreciated.**

- ◆ **Would you please now place and seal this stapled set of papers in your ‘privacy envelope’. (The last questionnaire can be folded up at the bottom to fit over the A4 sheets and into the envelope.)**

- ◆ **The sealed ‘privacy envelope’ can now go into the larger Reply Paid envelope, which has been provided for return of both partners’ documents.**

Many thanks for taking part!

Appendix B

Sent on my letterhead Contact details provided

Date

Participant name and address

Dear

Thank you very much for taking part in my study about couples and their relationships.

As per your request for feedback, please find attached a summary report of your responses to the questionnaires.

I trust that you will find the summary to be of value. If you have any queries or concerns regarding the report, please don't hesitate in contacting me on the telephone number listed above.

If, after reading the summary, you feel that you or your relationship could benefit from some therapeutic assistance, it may be of help to refer to the list of counselling services that you received with your initial research information letter.

Once again, many thanks for taking part in the study.

Yours sincerely,

.....
Pamela McNeill
PhD Candidate

Encl.

EXAMPLE OF FEEDBACK SUMMARY REPORT

Name:

Code Number:

Important: Please note that the questionnaires are capable of providing only a *broad guide* to your situation *as it was at the time of completion*. The reliability of the feedback is dependent on the questions having been answered with openness and careful consideration. Your feedback is based on score ranges obtained from the answers you have given on the questionnaires.

EMOTIONAL STYLE QUESTIONNAIRE

Your responses suggest an emotional style that is characterised by having a high ability to identify your feelings, express these to others, and to reflect on your emotional reactions to life situations rather than simply focusing on the facts and details of those events.

EMPATHIC UNDERSTANDING

Empathic Understanding Provided to and Received from Partner:

Your responses suggest that you see yourself as *providing* a high degree of understanding to your partner about his/her feelings and what life is like from that person's point of view, and *receiving* from your partner a moderate degree of understanding of your feelings and what life is like from your point of view.

EMOTIONAL CONNECTION WITH PARTNER

Your responses indicate strong agreement that you and your partner generally respond to each other in ways that are positive and interested. You report strong disagreement to you and your partner responding by ignoring each other or acting in ways that are disinterested, preoccupied, critical, and/or argumentative. You strongly agree that interactions with your partner contain more positive than negative exchanges. Overall, you strongly agree to feeling emotionally connected in a positive way to your partner.

RELATIONSHIP SATISFACTION

OVERALL RELATIONSHIP SATISFACTION:

Your responses suggest that you view your relationship as satisfying, and your Partner as a good and close friend. This relationship may be seen as a major source of fulfilment in your life. If relationship conflicts are present, it is likely that they are considered to be relatively minor or of recent onset.

EMOTIONAL COMMUNICATION AND INTIMACY:

Your responses suggest that overall, you consider the relationship to be happy and fulfilling, and your partner loving and supportive. You may experience your partner as understanding, and confide in this person as one would a close friend. This would provide a sound basis from which to share intimate as well as any conflicting feelings.

PROBLEM-SOLVING COMMUNICATION:

Your responses suggest that you consider your Partner to be fair and open to compromise and that there is generally little difficulty for you in resolving any differences that occur within the relationship.

...2/

Name:

- 2 -

Code Number:

AGGRESSION:

Your responses suggest that there is no physical aggression or intimidation by your partner.

TIME TOGETHER:

Your responses suggest that you view your partner as a good friend and generally feel satisfied with the time shared together in leisure activity. If concerns do exist in this area, they are more likely to be about a lack of time for recreation rather than about a lack of enjoyment of shared activities.

FINANCES:

Your responses suggest general satisfaction and relative agreement regarding management of the financial aspects in the relationship. If any financial strains are experienced, they are likely to have little negative impact on the overall relationship.

SEXUAL SATISFACTION:

Your responses suggest general satisfaction toward the quality, frequency, and specific content of the sexual relationship with your Partner.

ROLE ORIENTATION:

Your responses suggest a less traditional and more flexible attitude toward the roles of men and women in relationships and parenting, with sharing of decision-making, household duties, and child rearing being preferred.

FAMILY HISTORY:

Your responses suggest a history of generally satisfying relationships within the family in which you were raised. It was likely a fairly happy childhood containing positive feelings toward parents and any brothers/sisters. Your parents may have provided positive role models for expression of affection and resolving of differences.

CONCERNS WITH CHILDREN:

Your responses suggest that there may be some distress in your relationships with your children. There may be some disappointment with the children's behaviour or some frustration with the general demands of child rearing. Any distress in your intimate relationship may be resulting in part from the demands of raising the children.

CHILD REARING:

Your responses suggest a generally satisfying parenting relationship with your partner regarding the children. There may be sharing of child rearing activities, and in reaching decisions regarding discipline and the children's privileges and responsibilities. Differences in parenting attitudes are likely to be somewhat minor and dealt with in a way that avoids significant conflict.

Table A1*Correlations Between Study Variables and Control Variables for Husbands*

Study Variables		Rel. Duration	Age	No. of Previous Rels	Ethnicity ¹	Educ. Level	Occ. ²
DIF	Correlation Coefficient	-.111	-.047	.114	-.118	-.207*	.247
	Sig. (2-tailed)	.165	.540	.155	.137	.012	.189
	N	158	170	157	161	148	144
DDF	Correlation Coefficient	-.174*	-.146	-.018	.004	-.155	.297*
	Sig. (2-tailed)	.028	.057	.820	.959	.060	.046
	N	158	170	157	161	148	144
EOT	Correlation Coefficient	.051	-.010	-.112	-.003	-.281**	.225
	Sig. (2-tailed)	.524	.896	.164	.971	.001	.303
	N	158	170	157	161	148	144
Empathy Provided	Correlation Coefficient	.014	.089	.003	.153	.064	.193
	Sig. (2-tailed)	.863	.247	.971	.052	.439	.508
	N	158	170	157	161	148	144
Empathy Received	Correlation Coefficient	-.038	.059	.025	.063	.088	.195
	Sig. (2-tailed)	.637	.443	.754	.426	.285	.493
	N	158	170	157	161	148	144

GRQ 1 Turn Toward MO	Correlation Coefficient	.036	.170*	.106	.108	.072	.275
	Sig. (2-tailed)	.654	.027	.188	.172	.385	.090
	N	158	170	157	161	148	144
GRQ 2 Turn Toward OS	Correlation Coefficient	.003	.135	.007	.145	.122	.289
	Sig. (2-tailed)	.969	.079	.927	.066	.140	.060
	N	158	170	157	161	148	144
GRQ 3 Turn Away MO	Correlation Coefficient	-.143	-.208**	-.031	-.171*	-.026	.231
	Sig. (2-tailed)	.073	.006	.701	.031	.752	.267
	N	158	170	157	161	148	144
GRQ 4 Turn Away OS	Correlation Coefficient	-.107	-.163*	-.003	-.179*	-.145	.311*
	Sig. (2-tailed)	.179	.033	.971	.023	.080	.028
	N	158	170	157	161	148	144
GRQ 5 Turn Against MO	Correlation Coefficient	.026	-.024	-.037	-.193*	.024	.200
	Sig. (2-tailed)	.750	.752	.642	.014	.770	.461
	N	158	170	157	161	148	144
GRQ 6 Turn Against OS	Correlation Coefficient	.040	-.037	-.002	-.131	-.069	.156
	Sig. (2-tailed)	.620	.635	.977	.099	.407	.756
	N	158	170	157	161	148	144

GRQ 7 More Positive Than Negative Interactions	Correlation Coefficient	-.072	.008	-.006	.081	.090	.199
	Sig. (2-tailed)	.366	.912	.944	.307	.277	.465
	N	158	170	157	161	148	144
GRQ 8 Feel Emotionally Connected	Correlation Coefficient	-.016	.047	-.040	-.067	.089	.261
	Sig. (2-tailed)	.840	.547	.619	.396	.283	.133
	N	158	170	157	161	148	144
Relationship Dissatisfaction	Correlation Coefficient	-.090	-.108	.116	-.014	-.128	.197
	Sig. (2-tailed)	.261	.161	.148	.857	.120	.483
	N	158	170	157	161	148	144

Note. Rel. Duration = duration of relationship, No. of Previous Rels = number of previous marriages / de facto relationships, Educ. Level = education level, Occ. = occupation, Rel. Status = relationship status.

1: 1 = Other, 2 = Caucasian. 2: Eta was used as the measure of association for the categorical 'occupation' variable.

3: 1 = Married, 2 = De facto.

*, Correlation is significant at the 0.05 level (2-tailed). **, Correlation is significant at the 0.01 level (2-tailed).

Table A2*Correlations Between Control and Study Variables for Wives*

Study Variables		Rel. Duration	Age	No. of Previous Rels	Ethnicity ¹	Educ. Level
DIF	Correlation Coefficient	-.167*	-.158*	.018	-.016	-.046
	Sig. (2-tailed)	.033	.040	.818	.842	.573
	N	163	169	163	162	152
DDF	Correlation Coefficient	-.030	.019	.074	.030	-.075
	Sig. (2-tailed)	.701	.803	.350	.704	.358
	N	163	169	163	162	152
EOT	Correlation Coefficient	.156*	.030	-.221**	-.023	-.083
	Sig. (2-tailed)	.046	.698	.005	.769	.309
	N	163	169	163	162	152
Empathy Provided	Correlation Coefficient	.058	.100	.043	-.037	.068
	Sig. (2-tailed)	.461	.196	.583	.638	.408
	N	163	169	163	162	152

Empathy Received	Correlation Coefficient	.066	.088	.015	.006	-.086
	Sig. (2-tailed)	.404	.254	.852	.944	.293
	N	163	169	163	162	152
GRQ 1 Turn Toward MO	Correlation Coefficient	.050	.141	.219**	.034	-.031
	Sig. (2-tailed)	.529	.067	.005	.672	.706
	N	163	169	163	162	152
GRQ 2 Turn Toward OS	Correlation Coefficient	.088	.163*	.126	.029	.001
	Sig. (2-tailed)	.263	.035	.108	.716	.987
	N	163	169	163	162	152
GRQ 3 Turn Away MO	Correlation Coefficient	-.140	-.192*	-.067	-.107	-.016
	Sig. (2-tailed)	.075	.012	.398	.177	.846
	N	163	169	163	162	152
GRQ 4 Turn Away OS	Correlation Coefficient	-.187*	-.196*	.009	-.072	-.074
	Sig. (2-tailed)	.017	.011	.912	.360	.362
	N	163	169	163	162	152
GRQ 5 Turn Against MO	Correlation Coefficient	.033	-.058	-.096	-.034	.038
	Sig. (2-tailed)	.680	.456	.223	.668	.641
	N	163	169	163	162	152
GRQ 6 Turn Against OS	Correlation Coefficient	-.012	-.072	.002	.068	.070
	Sig. (2-tailed)	.881	.349	.984	.391	.393
	N	163	169	163	162	152

GRQ 7 More Pos Than Neg Interactions	Correlation Coefficient	-.078	.018	.152	.010	.055
	Sig. (2-tailed)	.320	.818	.053	.896	.498
	N	163	169	163	162	152
GRQ 8 Feel Emotionally Connected	Correlation Coefficient	.002	.053	.050	.073	-.015
	Sig. (2-tailed)	.978	.491	.523	.353	.852
	N	163	169	163	162	152
Rel. Dissatisfaction	Correlation Coefficient	-.149	-.140	.080	-.075	.031
	Sig. (2-tailed)	.058	.069	.309	.341	.705
	N	163	169	163	162	152

Note. Rel. Duration = duration of relationship, No. of Previous Rels = number of previous marriages / de facto relationships, Educ. Level = education level, Occ. = occupation, Rel. Status = relationship status.

1: 1 = Other, 2 = Caucasian. 2: Eta was used as the measure of association for the categorical 'occupation' variable.

3: 1 = Married, 2 = De facto.

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

Appendix E

Therapist Recruitment Package

LETTER TO CLINICIANS

*Sent on my letterhead
Contact details provided*

February 2006

Dear Colleague,

Thank you for your interest in my Ph.D. research with couples who have recently started relationship counselling, and for supporting me by telling your new couple clients about the study.

Telling couples about the study will involve taking a few minutes at an appropriate time **within the first five (5) sessions** to tell couples that the study is taking place, and to discuss with them the benefits. If they are interested, you would then give them a flyer that outlines the research and has my contact telephone number. Couples are then free to decide privately whether to follow up with me.

Enclosed with this letter, please find an information sheet for you, which may be used as a guide when telling your couple clients about the study, and some flyers to give to couples who show an interest in taking part or knowing more about the project.

As you will note, I am offering each partner in the couple an option of receiving a free written feedback summary of his or her own answers on the questionnaires, which I hope will be of assistance to both you and your clients. Please see the enclosed example of the kind of feedback summary that each partner may receive.

Also, please don't hesitate to contact me if you have any questions about the project.

Thank you sincerely for your help.

Kind regards,

.....
Pamela McNeill
PhD Candidate

Encl.

CLINICIANS' SCRIPT
INTRODUCING THE STUDY TO COUPLES

PLEASE INTRODUCE THE STUDY WITHIN THE FIRST FIVE SESSIONS

Screening the Couples

Please screen the couples clinically to ensure that they are not experiencing overwhelming distress and/or any domestic violence or fear within the relationship.

If you believe that it would be safe and appropriate for the couple to be told of the study, the following script may be used to introduce the research:

Script

- ◆ I'd like to tell you about some new university research that is being offered to couples who have just started relationship counselling.
- ◆ The researcher is looking for couples who would be willing to answer some questionnaires about themselves and their relationship.
- ◆ Taking part is totally voluntary and it's NOT part of your counselling. So, you only need to do it if you want to. However, the researcher is offering each partner the option of getting feedback on their answers. You would be free to bring this in to talk about in our sessions.
- ◆ I wonder if this something you might be interested in doing.

If couples answer 'YES', please continue by saying

- ◆ Because of privacy/confidentiality, I can't give out your details to anyone. So, the way we are doing this is to give you a brief information sheet about the study.
- ◆ If you are both interested, there is a number for you to call to contact the researcher.
- ◆ Any information you give to her will also be kept private and separate from your counselling, so that only you can decide if you want to talk about it.

Please hand the flyer to the couple.

RESEARCH INFORMATION FOR COUPLES

Voluntary and Confidential University Research with Couples

WHAT WILL YOU GAIN?

- ◆ *Free evaluation of key relationship areas;*
- ◆ *Understanding about your emotional style, your own views about the ways you and your partner interact with each other, and valuable information about your relationship;*
- ◆ *Knowledge about specific areas of relationship strength and limitation;*
- ◆ *Summary report of your answers (received by you within two weeks after I receive your completed questionnaires).*

WHAT WILL YOU EACH BE ASKED TO DO?

- ◆ *Fill in 5 questionnaires and some general questions (taking about 45 to 60 minutes);*
- ◆ *Post these back to me (postage paid envelope provided).*

Please note: To maintain your privacy, if feedback on the questionnaires is requested, it will be for each partner's own answers, and each will be sent separately.

- ◆ **If you are interested in taking part in the research, please telephone Pamela McNeill (PhD Candidate) on xxxxxxxx.**

EXAMPLE OF PARTNERS' FEEDBACK SUMMARY REPORT

Name:

Code Number:

Important: Please note that the questionnaires are capable of providing only a *broad guide* to your situation *as it was at the time of completion*. The reliability of the feedback is dependent on the questions having been answered with openness and careful consideration. Your feedback is based on score ranges obtained from the answers you have given on the questionnaires.

EMOTIONAL STYLE QUESTIONNAIRE

Your responses suggest an emotional style that is characterised by some difficulties identifying your feelings and expressing these to others. There may be a tendency for you to focus more on the facts and details of life situations rather than on your emotional reactions to those events.

EMPATHIC UNDERSTANDING

Empathic Understanding Provided to and Received from Partner:

Your responses suggest that you see yourself as *providing* a high degree of understanding to your partner about his/her feelings and what life is like from that person's point of view, and *receiving* from your partner a moderate degree of understanding of your feelings and what life is like from your point of view.

EMOTIONAL CONNECTION WITH PARTNER

Your responses indicate moderate agreement that you and your partner generally respond to each other in ways that are positive and interested. You report moderate disagreement to you and your partner responding by ignoring each other or acting in ways that are disinterested, preoccupied, critical, and/or argumentative. You moderately agree that interactions with your partner contain more positive than negative exchanges. Overall, you disagree to feeling emotionally connected in a positive way to your partner.

RELATIONSHIP SATISFACTION

OVERALL RELATIONSHIP SATISFACTION:

Your responses suggest that at present, you may be experiencing some discontent that is associated with conflict occurring with your partner. Although your partner may be considered a good friend, the relationship likely contains arguments, and you may be hoping to find ways of resolving differences that are problematic to you.

EMOTIONAL COMMUNICATION AND INTIMACY:

Your responses suggest some distress regarding the amount of affection that is expressed by your partner. As such, there may be a wish for your partner to be more open with her/his own feelings. Also, there may be a sense of emotional distance in the relationship and a feeling of being unappreciated or misunderstood.

PROBLEM-SOLVING COMMUNICATION:

Your responses suggest that you consider your partner to be fair and open to compromise and that there is generally little difficulty for you in resolving any differences that occur within the relationship.

Name:

- 2 -

Code Number:

AGGRESSION:

Your responses suggest that there is no physical aggression or intimidation by your partner.

TIME TOGETHER:

Your responses suggest that there is some concern about a lack of time for shared leisure activity with your partner, perhaps due to the demands of work and/or child rearing responsibilities. Occasionally, scores in this range may reflect feelings of isolation from a partner.

FINANCES:

Your responses suggest general satisfaction and relative agreement regarding management of the financial aspects in the relationship. If any financial strains are experienced, they are likely to have little negative impact on the overall relationship.

SEXUAL SATISFACTION:

Your responses suggest general satisfaction toward the quality, frequency, and specific content of the sexual relationship with your partner.

ROLE ORIENTATION:

Your responses suggest a less traditional and more flexible attitude toward the roles of men and women in relationships and parenting, with sharing of decision-making, household duties, and child rearing being preferred.

FAMILY HISTORY:

Your responses suggest a history of some tension within the family in which you were raised. There may have been a sense of distance from parents, brothers/sisters, or both. You may wish there had been more affection and greater positive modelling upon which to base your relationship and parenting roles.

CONCERNS WITH CHILDREN:

Your responses suggest that there may be some distress in your relationships with your children. There may be some disappointment with the children's behaviour or some frustration with the general demands of child rearing. Any distress in your intimate relationship may be resulting in part from the demands of raising the children.

CHILD REARING:

Your responses suggest a generally satisfying parenting relationship with your partner regarding the children. There may be sharing of child rearing activities, and in reaching decisions regarding discipline and the children's privileges and responsibilities. Differences in parenting attitudes are likely to be somewhat minor and dealt with in a way that avoids significant conflict.

CLINICAL COUPLES
ELIGIBILITY SCREENING AND RECRUITMENT

Each partner to be recruited separately.

Exclude from the study if any answer is different from that indicated by the boxes. Tick the boxes to confirm that the question has been asked and answered.

Thank you for taking the time to ring me about the study.

Can I confirm that you have been given a flyer by your Clinician? YES ☐

From the flyer, you will see that I need to talk to both you and your partner. I wonder if your partner is home at the moment.

[If YES – confirm that the partner is willing to speak to me.]

[If NOT HOME – confirm that the partner is willing to take part in the study.]

[If YES, confirm that a return call is welcome. If possible, arrange time.]

As you will know, I am asking couples who have just started couple counselling whether they would like to take part in a new research study looking at relationships.

The study is researching couples regarding their emotional styles, how partners respond to each other, and a range of important relationship areas.

It involves both partners filling out 5 questionnaires and some general questions. This should take about 45 to 60 minutes of your time.

As a benefit to taking part, I am offering each of you the option of receiving a separate free summary report of your answers to the questionnaires.

Do you think you would be interested in taking part in the study? Y/N

If NO – thank the person for his/her time – end call.

If YES – continue.

Thank you. Now I just have to ask you some questions to make sure that I have the right group of people for the study.

INCLUSION CRITERIA

Name: _____ Code No. _____

Name: _____ Code No. _____

Address: _____

Referral Service: _____

ANSWERS MUST MATCH INCLUSION CRITERIA

[Check responses when recruiting the second partner]

With your current couple counselling, how many sessions have you and your partner attended? [≤ 5 required]

PLEASE TELL ME WHICH OF THE FOLLOWING APPLY TO YOU:

Have you been living with your partner continuously for at least a year? YES ☐

Are you over 18 years of age? YES ☐

Are you and your partner a male-female couple? YES ☐

Are you having any individual, family, or group counselling? NO ☐

Is this the first time you and your partner have had counselling for this relationship? Y/N

If NO – excluding this time, how many times have you had counselling?

Is this a Marital or De facto relationship? M/D

Are you fluent in the English language? (Yes required) Y ☐

If NOT ELIGIBLE - say 'unfortunately, I need people who
[cite reason] N/E ☐

If ELIGIBLE - Thank you for that - your answers mean that you are eligible to be part of the study. E ☐

Thank the person for his/her time. Continue with the next page.

[Office use only]

Research Package sent: YES ☐

Research Package returned: YES ☐

Feedback requested and sent: YES ☐

Now I would like to reassure you that all of the information you give to me is strictly confidential and will be used in a way that guarantees that you can't be identified. Also, you are free to stop taking part at any time. Taking part in the study is completely separate from your couple counselling, and I won't be having any contact with your therapist or sending them any information about your questionnaires.

If you both agree, I'll mail out a research package that contains two sets of documents – one set for each of you.

Each set will have a letter that explains the project and what you are required to do, a consent form for you to sign, and the questionnaires. Also, you will each receive a 'privacy' envelope in which you and your partner can seal your completed questionnaires *separately* from each other.

Both 'privacy envelopes' can then be put into a large postage paid envelope that I'll provide for return of both sets.

Are there any questions you would like to ask me? [Respond as necessary.]

Do you think you would like to take part in the study?

If NO - thank the person for his/her time – end call.

If YES - add name and address to the inclusion criteria checklist.

Confirm that after the other partner has been contacted, and agrees to take part, the research package will be mailed.

Speak to the second partner and repeat the recruitment process.

Mail the research package after gaining verbal consent from the second partner.

Appendix G

RESEARCH INFORMATION LETTER

Please read this letter before you begin the questionnaires.

Dear Participant,

Thank you for agreeing to take part in the research I am conducting through Edith Cowan University. Your contribution is very valuable, as it will lead to new knowledge in the field of couples' relationships.

As with all research such as this, the project has been examined and approved by two Supervisors, two independent reviewers, and the ECU Human Research Ethics Committee.

Your clinician has approached you about taking part in this study because I am researching the experiences of couples who have recently entered relationship counselling. In particular, I am interested in couples' emotional styles, partners' ideas of how they respond to and understand each other, and various areas that are associated with couples' relationships.

Please be assured that all information you give will be strictly private and confidential, will be stored securely, that your participation is voluntary, and you can withdraw from the study at any time. Although the research thesis and overall findings will be published, these will be presented in a way that guarantees that no individual or couple may be identified.

Please note that taking part in this research is separate from your relationship counselling, and I will NOT be giving your clinician any information that you provide in the study.

Enclosed you will find a set of documents that contains a consent form, five questionnaires for you to complete and return. It should take about 45 to 60 minutes to answer all of the questions. Because one of the questionnaires has carbon paper and needs to be marked with a pen that can apply pressure, would you please use the pen provided, and feel free to keep it - with my thanks!

For your answers to remain private, you have also received a separate 'privacy envelope' in which to place and seal your completed documents. Both partners' sealed 'privacy envelopes' may then be placed in the larger (postage paid) envelope provided, which you are asked to seal and mail back to me. **Please complete the questionnaires separately from your partner, without checking your answers with each other.**

Sometimes, when partners answer questions about their relationship, awareness can be raised of areas that could benefit from some extra attention. As you have recently started relationship counselling, it may be helpful for you to discuss with your clinician any issues that arise. **Should you experience any undue distress whilst answering the questions, please feel free to discontinue and withdraw from the study.**

If you have any questions or concerns related to the study, you may contact me on xxxxxxxx, or my Supervisors, Dr. Craig Speelman or Associate Professor Lisbeth Pike through the Edith Cowan University School of Psychology on 6304 5551.

Again, thank you very much for taking the time to be in this study. Please keep this letter for your reference. **Because the research has a specific time frame, I would appreciate it if you would complete and send back the stapled set of documents within the next one to two weeks.** If, for any reason, you decide to not complete the questionnaires, I would appreciate you returning everything in the envelope provided.

Yours sincerely,

Pamela McNeill
PhD Candidate

June 2006

This research project has been approved by the Edith Cowan University Human Research Ethics Committee.

THERAPIST INTERVIEW

DEMOGRAPHIC INFORMATION

Sex: ☐ Male ☐ Female

Primary Clinical Qualification(s):

- | | |
|--|--|
| <input type="checkbox"/> Certificate/Diploma in Counselling
<input type="checkbox"/> Social Work Degree (4 years)
<input type="checkbox"/> Psychiatry
<input type="checkbox"/> PhD - in | <input type="checkbox"/> Certificate in Marital Therapy
<input type="checkbox"/> Psychology Degree (4 years)
<input type="checkbox"/> Master's Degree:
<input type="checkbox"/> Other |
|--|--|

How long have you worked in a clinical capacity?

	(1)	(2)	(3)	(4)
1. Using the scale of:	Almost Never	Sometimes	Often	Nearly Always

In your clinical practise, how often would you see the following in your individual clients:

Having feelings they can't quite identify.

Showing difficulty finding the right words
for their feelings.

Showing no examination of feelings when solving
personal problems.

Showing limited reflection of their own inner processes.

Lacking in emotional insight.

2. If most of these features were to occur within an individual, in what percentage of your clients would you see this?

3. In your experience, are these features more likely to be seen in males, females, or equally in both genders?

4. In thinking about your clinical work with **couples**, how often would you see couples in whom there are *noticeable differences* in the features between partners?

5. Have you heard of the terms:

(a) 'Emotional Intelligence'?

(b) 'Alexithymia'?

(c) 'Psychological Mindedness'?

6. What is your understanding of:

(a) 'Emotional Intelligence'? Note

(b) 'Alexithymia'? Note

(c) 'Psychological Mindedness'? Note

If 'no' to alexithymia → conclude interview → thank participant → explain study purpose.

If 'yes' to alexithymia continue with the following questions.

7. How did you come to know about alexithymia? (e.g., readings, colleague.)

8. Do you specifically assess clients for the presence of high alexithymia? ☐ Y ☐ N

9. If 'yes' to question 7, how do you do this?

10. What impact, if any, does the presence of high alexithymia have on couples' therapy progress? Note

Conclude interview → thank participant → explain study purpose.