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## A comparison of alexithymia levels of male intimate partner abuse perpetrators and men from the general community

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A Comparison of Alexithymia Levels of Male Intimate Partner Abuse Perpetrators and Men  
from the General Community

James Strickland

A report submitted in partial fulfilment of the requirements for the award of Bachelor of Arts  
(Psychology) Honours, Faculty of Health, Engineering and Science.

Edith Cowan University

Submitted October 2014

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A Comparison of Alexithymia Levels of Male Intimate Partner Abuse Perpetrators and Men  
from the General Community

Abstract

Intimate partner abuse (IPA) is a significant social issue with diverse and complex risk factors. Recent attention, however, has been placed on the individual psychological and emotional factors associated with IPA, including deficits in the processing of emotions. The construct of alexithymia, which involves difficulties identifying and describing emotions, integrates some of these emotional deficits. Currently, no published research has examined the levels of alexithymia among Australian men who perpetrate IPA. The aim of the current study was to compare the alexithymia levels of IPA perpetrators ( $n = 31$ ) with those of men from the general community ( $n = 34$ ) using the 20-item Toronto Alexithymia Scale. IPA perpetrators were recruited from IPA intervention programs run by various organisations in Western Australia. The results showed that IPA perpetrators had significantly higher levels of alexithymia than community sample men. However, it was found that IPA perpetrators only scored higher than community men on subscales which measure difficulties identifying and difficulties describing emotions; the groups did not differ on the subscale which measures externally oriented thinking style. A post hoc analysis was then conducted comparing alexithymia scores of IPA perpetrators with incarcerated violent and non-violent offenders, which found that IPA perpetrators scored significantly lower than incarcerated offenders on externally oriented thinking style; no other differences were significant. The findings of this thesis suggest that alexithymia levels, particularly difficulties recognising and verbalising emotions, are higher among IPA perpetrators than the general community, and that these deficits may play an important role in IPA perpetration.

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Supervisors: Dr Maria Allan and Professor Alfred Allan

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## A Comparison of Alexithymia Levels of Male Intimate Partner Abuse Perpetrators and Men from the General Community

Male violence against women is a major health and human rights concern across all social, racial and cultural groups, affecting millions of women worldwide (Pan et al., 2006). Intimate partner abuse (IPA) involves any acts of physical violence or aggression, as well as emotional, verbal, or sexual abuse intended to cause harm to a partner within an intimate relationship (McDermott & Lopez, 2013). IPA is the most prevalent form of violence experienced by Australian women (Australian Bureau of Statistics [ABS], 2013), and is one of the leading health risks to females of reproductive age (United Nations, 2005). In Australia, between 17% (ABS, 2013) and 34% (Australian Institute of Criminology [AIC], 2004) of women will experience physical forms of IPA at some stage of their life, while non-physical forms of IPA affect as many as 31% of women (AIC, 2009). Throughout this thesis, terms such as intimate abusiveness and partner abuse will be used interchangeably with IPA.

IPA within heterosexual relationships, which is the interest of the current thesis, is by no means perpetrated purely by men (see, e.g., Dutton, Nicholls, & Spidel, 2005). However, overwhelming evidence suggests that most perpetrators of severe IPA are male (Whitaker, 2013), and that the consequences of male-to-female IPA are typically more severe than female-to-male IPA (Caldwell, Swan, & Woodbrown, 2012; Pico-Alfonso et al., 2006). Among intimately abusive men, motivations for using IPA are diverse, and, as perpetrators are a heterogeneous group, research has identified numerous pathways and predispositions to abusive behaviour. Consideration of these various factors is therefore necessary in order to understand both the complexity and magnitude of IPA.

### **Theories and Perspectives of IPA**

Because of the diverse constellations of behavioural antecedents and risk factors for IPA perpetration, single theoretical approaches struggle to explain this behaviour (Dixon &

Graham-Kevan, 2011). Accordingly, contemporary perspectives consider the interaction of biological, sociocultural, and psychological factors in understanding intimate abuse (Allan & Allan, 2014). Biological perspectives of IPA perpetration recognise, among other things, the influence of genetic factors which may predispose an individual to aggressive behaviour. Monoamine oxidase A gene, for example, has been linked to increased aggressive behaviour in conditions of perceived provocation or threat (e.g., McDermott, Tingley, Cowden, Frazzetto, & Johnson, 2009).

Sociocultural approaches to IPA, such as feminist perspectives, present intimate abuse as a gender-based mechanism of control, perpetrated by men to preserve power over women within a patriarchal social structure (Busch, Bell, Hotaling, & Monto, 2002). Accordingly, abusive behaviour is expected as a product of male gender-role socialisation, and may occur in response to women's transgressions from traditional sex roles or threats to men's masculinity (Moore & Stuart, 2005). Scholars (e.g., Stith, Smith, Penn, Ward, & Tritt, 2004; Weldon & Gilchrist, 2012) have reported high endorsement of patriarchal attitudes amongst IPA perpetrators, including attitudes of male entitlement and the acceptability of violence. While judicious theories of IPA cannot overlook the effects of gender and sex role ideologies, sociocultural perspectives are often criticised for ignoring critical individual factors related to intimate abusiveness (Dutton & Nicholls, 2005).

From a more psychological perspective, IPA is often explained in the context of social learning theory, which posits that intimate abusiveness is learned through the observation and consequent imitation of IPA (Wareham, Boots, & Chavez, 2009). Abusive behaviour, such as the use of aggression to manage conflict and emotional distress, is learned and subsequently reinforced by family and social values. This process of intergenerational transmission is argued to occur due to both the modelling of abuse and the subsequent formation of cognitions and schemas which provide a framework for how one interacts with an intimate

partner (Delsol & Margolin, 2004). Although consideration of this and other broad perspectives of IPA is important to appreciate this behaviour, perspectives which examine the psychological and emotional components of individual perpetrators have drawn the most attention in the literature. Accordingly, it is these individual psychological factors that are of greatest interest in the current review, and will be the focus in the following sections.

### **Individual psychology perspectives.**

Individual psychological perspectives consider the various factors affecting individual perpetrators, such as personality and psychopathology, and highlight the role of emotional functioning in intimate abusiveness (Dutton, 2006). To explain IPA, these approaches explore the role of mood disturbances, personality disorders, attachment processes, heightened levels of anger and hostility, childhood trauma, and emotion regulation deficits (Ali & Naylor, 2013; Dutton, 1999; Ehrensaft, Cohen, & Johnson, 2006). Most important to the current review, however, are factors which demonstrate the importance of emotion and emotional awareness in the perpetration of IPA, and which acknowledge that IPA is often used as a reaction to emotional stress (see Tweed & Dutton, 1998). Many perpetrators demonstrate high levels of emotional volatility and outbursts of rage, which suggests that problems managing and expressing emotions may be common among IPA perpetrators (see, e.g., Holtzworth-Munroe & Stuart, 1994; Stanford, Houston, & Baldrige, 2008). Specifically, if IPA is used as a maladaptive response to emotional distress, it could be that problems recognising and safely communicating emotions are important components in the perpetration of IPA. It is with this matter that the present study is concerned.

Many IPA perpetrators have difficulties both identifying emotions in themselves and expressing emotions to an intimate partner (Dutton, 2007). Accordingly, men who struggle to identify and describe their emotional experiences may employ aggressive behaviours to eliminate distressing affect (see, e.g., Cohn, Seibert, & Zeichner, 2009; Cohn, Jakupcak,

Seibert, Hildebrandt, & Zeichner, 2010), and could use abusiveness as a response to confusing emotional arousal (Jakupcak, 2003). The inability to recognise and regulate emotional states, which Dutton (2007) refers to as affective numbing, is common among intimate abusers, and can lead to hyperarousal and outbursts of rage in men with propensities for abusiveness. It is therefore possible to consider IPA as a maladaptive substitute for effective communication within relationships, whereby an inability to express affective states increases the risk of abusive behaviour.

Difficulties with the healthy expression of emotion also suggests that intimately abusive men lack the communication skills necessary to resolve conflicts using less destructive strategies (see, e.g., Eckhardt, Jamison, & Watts, 2002; Holtzworth-Munroe, Smutzler, & Bates, 1997; Schumacher, Feldbau-Kohn, Slep, & Heyman, 2001). Indeed, many IPA perpetrators struggle to assertively communicate anger and other emotions in their relationships, resorting to more aggressive communication behaviours such as insults, threats, and physical violence (for a review see Ali & Naylor, 2013). These affective communication deficits may contribute to the dysfunctional communication styles used by some abusive men, who often demonstrate lower levels of assertiveness in relationships than non-abusive men (Maiuro, Cahn, & Vitaliano, 1986). It may be, therefore, that the inability to express negative emotional states in an intimate relationship leads to a build-up of tension and hostility, whereby abusiveness occurs as an outlet for inexpressible anger and rage (also see Adams, 2012).

The role of these negative emotions, particularly anger, in the perpetration of IPA is well documented within the literature (see Dutton, 2007; Dutton & Corvo, 2006). Indeed, many IPA perpetrators demonstrate higher levels of anger than non-abusive men on both self-report (Maiuro, Cahn, Vitaliano, Wagner, & Zegree, 1988) and physiological measures (Margolin, John, & Gleberman, 1988; for a review see Norlander & Eckhardt, 2005).

However, the specific role that anger plays in IPA perpetration is not clear within the literature, and it appears that, as above, it is the inability to effectively express this emotion that contributes to abusiveness (see, e.g., Barbour, Eckhardt, Davison, & Kassino, 1998; Eckhardt, Samper, & Murphy, 2008). For example, intimately abusive men, despite experiencing greater levels of subjective anger, often use fewer emotive words (e.g., mad and furious) than non-abusive men during anger arousal (e.g., Barbour et al., 1998; Eckhardt et al., 2002), suggesting that inexpressiveness may contribute to outbursts of abuse (also see Eckhardt et al., 2008). While such findings are limited to expressions of anger, it may be that abusive men have difficulties describing the emotions they experience in general. Therefore, an inability to label and effectively communicate hostile emotions may be a common characteristic of men who perpetrate IPA.

It makes intuitive sense that if someone struggles to identify his or her own emotions, then they will also have difficulty identifying the emotions of other people (see, e.g., Williams & Wood, 2010). Indeed, deficits in empathy are often observed among perpetrators of IPA, whereby they struggle to understand the emotional experience and perspective of their partner (e.g., Clements, Holtzworth-Munroe, Schweinle, & Ickes, 2007; Covell, Huss, & Langhinrichsen-Rohling, 2007). Clements et al. (2007) found that abusive men were less accurate at inferring the emotional state of their partner than they were at inferring the emotional state of a female stranger. Further, abusive and non-abusive men did not differ on their ability to empathise with strangers, which suggests that, for intimate abusers, empathic deficits may facilitate the use of abusive behaviours within their relationship (also see Miller & Eisenberg, 1988). Similarly, many abusive men have deficits in recognising facial expressions of emotion, and are less accurate than non-abusive men at identifying the emotional expressions of their partners (e.g., Marshall, 2004; Marshall & Holtzworth-Munroe, 2010). It would seem, therefore, that an inability to identify and describe emotions

in oneself and an inability to identify and describe emotions in others both facilitate the perpetration of IPA.

Many of the problems with emotion that have been identified are components or associated features of a personality construct known as alexithymia, which is characterised by difficulties identifying, describing, and processing emotional experiences (Sifneos, 1973). Accordingly, alexithymia may be a useful construct to integrate many of the emotional deficits observed in abusive men, and could provide a way of measuring some of the emotional problems linked to IPA. Although there is a paucity of research examining alexithymia among IPA perpetrators, extant literature is suggestive of a link between higher levels of alexithymia and the perpetration of aggressive and intimately abusive behaviours. Prior to reviewing this area of literature, however, the construct of alexithymia will be further introduced and expanded.

### **An Overview of Alexithymia**

The construct of alexithymia refers to cognitive and affective deficits in the processing of emotions, particularly impairments in recognising and verbalising feelings. Alexithymia is comprised of four main characteristics: difficulties identifying, understanding, and describing emotions, difficulties distinguishing feelings from sensations of emotional arousal, reduced capacity for mental fantasy, and an externally oriented style of thinking (Sifneos, 1973; Wotschack & Klann-Delius, 2013). People with alexithymia are often confused about the meaning and source of their emotional states (Taylor & Bagby, 2000), and may experience intense emotional turmoil and impulsive outbursts of aggression (e.g., Taylor, Parker, Bagby, & Acklin, 1992); characteristics which align with intimately abusive behaviour. Given the presence and importance of these emotional factors in intimate abuse, it seems reasonable to believe that IPA perpetrators may demonstrate higher levels of alexithymia than non-abusive men.

Alexithymia was originally conceptualised to describe a lack of affective expression amongst psychosomatic patients, who demonstrated an inability to identify emotional experiences and had a preference for affect-free discourse (Nemiah & Sifneos, 1970). People with alexithymia also demonstrate a host of interpersonal problems, including cold, nonassertive social functioning (Vanheule, Desmet, Meganck, & Bogaerts, 2007), decreased relationship satisfaction (Humphreys, Wood, & Parker, 2009), and impulsivity (Shishido, Gaher, & Simons, 2013), as well as greater hostility in intimate relationships (Pérusse, Boucher, & Fernet, 2012). Although it has been proposed as a stress-related state in some psychiatric conditions (see, e.g., Saarijärvi, Salminen, & Toikka, 2006), most authors in the reviewed literature believe that alexithymia is a temporally stable trait in clinical and community populations (see Tolmunen et al., 2011).

Alexithymia also includes an inability to regulate affect through social interactions (Spitzer, Siebel-Jürges, Barnow, Grabe, & Freyberger, 2005), and has been linked to numerous psychological and behavioural disorders, including borderline personality disorder (New et al., 2012), depression (Bamonti et al., 2010), and pathological gambling (Toneatto, Lecce, & Bagby, 2009). However, a recent study of psychosomatic patients suggested that the different components of alexithymia may be associated with different behaviours (Tominaga, Choi, Nagoshi, Wada, Fukui, 2014). For example, the authors found that difficulty identifying feelings was positively related to emotionally avoidant coping strategies, and that difficulty describing feelings was negatively related to seeking social support. These findings reflect the importance of considering alexithymia as a multi-dimensional construct (also see Ueno, Maeda, & Komaki, 2014).

### **Aetiology and prevalence of alexithymia.**

Multiple factors are implicated in the aetiology of alexithymia, including genetic and neurobiological defects, developmental trauma, and sociocultural influences (Taylor &

Bagby, 2004). Neurobiological perspectives of alexithymia propose deficits in the interhemispheric transfer of emotional information, as well as increased activation of the right anterior cingulate cortex during emotional arousal (e.g., Heinzel et al., 2010).

Alexithymic traits have also been observed consequent to traumatic brain injury, suggesting an organic development of symptoms (e.g., Becerra, Amos, & Jongenelis, 2002; Williams & Wood, 2010). In the absence of such acquired brain trauma, however, a variety of developmental factors may account for the neurobiological correlates and aetiology of alexithymia.

Scholars (e.g., Montebanocci, Codispoti, Baldaro, & Rossi, 2004) have proposed that alexithymia develops as a consequence of adverse childhood experiences, such as psychological trauma and attachment disturbances. Attachment theory posits that emotional regulation capacities are facilitated in the context of a secure infant-caregiver relationship, in which appropriate affective expression is learned (Schorer, 2005). Research has found that poor parental bonding in childhood can lead to the development of alexithymia (see, e.g., Joukamaa et al., 2003), and that insecure attachment contributes to the emotion dysregulation and inexpressiveness in alexithymia (e.g., Fukunishi, Sei, Morita, & Rahe, 1999; Oskis et al., 2013). Moreover, learning how to articulate feelings may be impeded in a family setting which discourages the expression of emotions, or in which emotions are considered dangerous (Yelsma, Hovestadt, Anderson, & Nilsson, 2000).

Similarly, childhood emotional neglect may be involved in the development of alexithymia, with high-alexithymic individuals more likely to have been emotionally neglected than low-alexithymic people (Aust, Härtwig, Heuser, & Bajbouj, 2013; Evren, Evren, Dalbudak, Ozcelik, & Oncu, 2009). Alexithymia can also be shaped by social influences, such as gender role socialisation and the perceived acceptability of emotions (Levant, Hall, Williams, & Hasan, 2009). As masculine norms devalue emotional expression,

many men fail to develop an adequate emotional vocabulary or awareness, resulting in difficulties understanding and labelling emotions. Compared to non-alexithymic men, alexithymic men often conform more strongly to masculine gender roles, which include the endorsement of male dominance and aggressive behaviours (see, e.g., Fisher & Good, 1997).

Prevalence rates of alexithymia have been estimated at approximately 10% within the general population, with men generally reporting marginally higher rates than women (e.g., Franz et al., 2008; Honkalampi et al., 2001; Taylor, 2000). However, prevalence rates have been reported at 33% in clinically depressed patients (Celikel et al., 2010) and as high as 60% in patients with traumatic brain injuries (Wood & Williams, 2007). Recent Australian research has also observed a greater prevalence of alexithymia among male incarcerated violent offenders, with 40% of an offender sample identified as alexithymic compared to 10% of men from a general community sample (Parry, 2012). The higher rate of alexithymia among men incarcerated for violent crimes is unsurprising given the role of alexithymia in aggressive, impulsive, and hostile behaviours, and could be suggestive of the expected link between alexithymia and intimate forms of abuse.

### **Alexithymia in Aggressive and Violent Behaviour**

Exploring the presence of alexithymia in aggression is important to the current review because if alexithymia plays a role in aggressive and violent behaviour generally, it would be reasonable to expect higher levels of alexithymia among men who perpetrate specifically intimate forms of abuse. Indeed, a considerable body of literature has implicated alexithymia in the use of aggression (e.g., Dobson, 2005; Fossati et al., 2009; Hornsveld & Kraaimaat, 2012), suggesting that aggressive behaviour may serve an emotion regulation function among those with high levels of alexithymia (Tull, Jakupcak, Paulson, & Gratz, 2007). Accordingly, men who are incapable of understanding or verbalising their emotional experiences are at increased risk of employing aggressive behaviours as a way of expressing and terminating

negative internal states (e.g., Cohn et al., 2009; Cohn et al., 2010). Both studies by Cohn and colleagues, however, employed laboratory measures of aggression (e.g., willingness to administer electric shocks) among community samples, and did not explore these emotional deficits in men known to perpetrate violence or abuse. Nonetheless, their findings are consistent with research showing that an inability to express difficult feelings may heighten emotional arousal and increase the chance of using aggressive behaviours (see Taylor et al., 1992; Tull et al., 2007).

Higher levels of alexithymia also facilitate impulsive types of aggression, implicating the construct in emotionally reactive violence (e.g., Fossati et al., 2009; Teten, Miller, Bailey, Dunn, & Kent, 2008). It is possible that alexithymic people fail to inhibit impulsive outbursts of aggression because they are unable to represent or regulate their emotions using language (also see Miller, Collins, & Kent, 2008). Reactive displays of aggression may therefore occur when their unrecognisable affective states are perceived as overwhelmingly stressful (Fossati et al., 2009). Accordingly, people with alexithymia often use impulsive acting-out behaviours (e.g., aggression or substance abuse) to cope with their unpleasant and confusing emotional arousal (Taylor et al., 1992). Therefore, it seems to be well-established that alexithymia may lead to hyperarousal and impulsive outbursts of aggression during emotional distress (see, e.g., Dutton, 2007; Shishido et al., 2013).

As could be expected, earlier research (e.g., Keltikangas-Jarvinen, 1982; Louth, Hare, & Linden, 1998) demonstrated a high prevalence of alexithymia among samples of incarcerated offenders. Louth et al. (1998) identified 33% of a female offender sample as alexithymic, well above the 10% typically observed in the general community. Moreover, they found that violent offenders had significantly higher levels of alexithymia than non-violent offenders, and that level of alexithymia was positively correlated with history of violence ( $r = .49$ ). The authors concluded that the use of violence by alexithymic individuals

may be due to an inability to identify and effectively communicate emotions aroused by challenging situations. Kupferberg (2002) also examined the link between alexithymia and aggression, reporting that alexithymia enhanced aggressive behaviours in men, particularly hostility.

In a recent West Australian study, Parry (2012) explored the levels of alexithymia among incarcerated male offenders. The author reported significantly higher levels of alexithymia among violent offenders ( $M = 57.93$ ,  $SD = 12.62$ ) compared to non-offending community males ( $M = 45.96$ ,  $SD = 10.70$ ), as measured by the 20-item Toronto Alexithymia Scale (TAS-20; Bagby, Parker, & Taylor, 1994). Further analyses indicated that violent offenders were five times more likely to be alexithymic than community males. Importantly, however, no difference was observed between the alexithymia scores of violent offenders and non-violent offenders, suggesting that alexithymia may play a role in offending generally. Although reporting greater alexithymia among men who perpetrate violence than men in the general community, Parry did not investigate the nature of the violent acts, proposing that alexithymia could be more closely associated to some forms of violent or abusive behaviour than other forms. Given the importance of emotional communication within intimate relationships, as well as the challenging emotional environment they represent (Pérusse et al., 2012), alexithymia may be more prevalent amongst men who exclusively perpetrate IPA.

### **Alexithymia and IPA.**

The inability to identify and communicate emotions is likely to inhibit effective conflict resolution in a relationship and increase the risk of unhealthy strategies to manage emotional stress (see, e.g., Eckhardt et al., 2008; Holtzworth-Munroe et al., 1997). Many people with alexithymia also demonstrate marked deficits in both empathy (e.g., Grynberg, Luminet, Corneille, Grèzes, & Berthoz, 2010; Moriguchi et al., 2007) and the recognition of facial expressions of emotion (e.g., Cook, Brewer, Shah, & Bird, 2013; Ihme et al., 2014;

Lane et al., 1996), particularly those of fear, anger, and sadness (Prkachin, Casey, & Prkachin, 2009). Impaired empathy and emotion recognition could facilitate abuse if, for example, the perpetrator misinterprets or attributes hostile intent to the emotional displays of his partner (Clement & Schumacher, 2010). Because empathic deficits and problems with emotion recognition are also established as components in the perpetration of IPA, it is reasonable to believe that men who perpetrate IPA could have higher levels of alexithymia than men who do not perpetrate IPA.

Despite the apparent significance of alexithymia in abusive behaviour, there is a dearth of research exploring the construct among IPA perpetrators. The consideration of alexithymia in IPA was developed by early research into the interpersonal behaviours of intimate abusers (i.e., Allen, Calsyn, Fehrenbach, & Benton, 1989). Allen et al. (1989) found that abusive male partners had greater difficulty expressing affection and intimacy needs than non-abusive men, as well as greater difficulties forming social relationships. While this was an important finding, the study only measured difficulties with emotional expression, and not alexithymia specifically. Alexithymia is a multifaceted construct, which also includes an external thinking style, confusion of affective sensations, and reduced mental fantasy (Wotschack & Klann-Delius, 2013). Nonetheless, Allen et al.'s findings strengthened academic interest in the affective deficits of IPA, which led to the implication of alexithymia.

It appears that only two published studies have compared the alexithymia level of IPA perpetrators with that of non-perpetrators (i.e., Levin, 1999; Yelsma, 1996). Using the TAS-20 as a measure of alexithymia, Yelsma (1996) found that abusive partners had significantly higher levels of alexithymia than non-abusive partners. The author concluded that intimate abusers have greater difficulty recognising, verbalising, and modulating their subjective emotions, which may lead to the use of reactive abuse. Using the same measure, Levin (1999) also reported higher levels of alexithymia among intimate abusers compared to a non-abusive

control group. Taken together, these findings suggest that IPA perpetrators struggle to identify and describe their feelings, and that IPA may be a pathological substitution for effective emotional communication (consistent with Maiuro et al., 1986).

Notwithstanding the importance of these findings, there are limitations to both Yelsma (1996) and Levin (1999) which encourage further research. First, both studies only examined the total alexithymia score of participants and did not report on the individual subscales of the TAS-20 (i.e. difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking style). This is an important limitation, particularly in light of suggestions that the individual components of alexithymia may be related to different behaviours (see Tominaga et al., 2014). Second, these studies employed perpetrator samples with both male and female perpetrators, and did not distinguish between gender in their analysis or interpretation of findings. Therefore, neither study provided information on the level of alexithymia in male IPA perpetrators only, which is the interest of the current study. This is a limitation because men often exhibit higher levels of alexithymia than women (e.g., Levant et al., 2009), and alexithymic men may respond differently to emotional distress than alexithymic women (e.g., Carpenter & Addis, 2000).

### **Current Study**

It is the intention of the current study to amend these limitations and expand the literature on alexithymia and IPA. With the reviewed literature in mind, it seems reasonable to expect that IPA perpetrators may have higher levels of alexithymia than non-abusive men from the general community. It appears that no published research has examined the alexithymia levels of male IPA perpetrators in Australia; a crucial consideration given the potential influence of culture in IPA (see Pan et al., 2006). Finding high levels of alexithymia among IPA perpetrators will inform effective intervention programs which specifically acknowledge the presence and influence of alexithymia in this behaviour. It also appears that

no research has explored differences between IPA perpetrators and non-perpetrators on the individual components of alexithymia measured by the TAS-20, namely difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking style. Finding that IPA perpetrators have greater or lesser deficits in certain aspects of alexithymia would illuminate which components are most important in IPA perpetration.

The purpose of the current study is therefore to compare the alexithymia levels of men who perpetrate IPA with a sample of men from the general community. Based on the literature reviewed, it is expected that IPA perpetrators will show higher levels of alexithymia than men with no known history of IPA perpetration.

## **Method**

### **Research Design**

This study used a quantitative, quasi-experimental between-subjects design to compare the level of alexithymia among IPA perpetrators with that of men from a community sample. Accordingly, the independent variable was IPA perpetration status, consisting of two levels: IPA perpetration and non-perpetrating behaviour; non-perpetration was assumed within the community sample. The dependent variables were the total alexithymia score and the score of each subscale of the TAS-20.

### **Participants**

Using the effect size reported by Yelsma (1996) between perpetrator and non-perpetrator groups ( $d = 0.94$ ), an a priori power analysis indicated that at least 25 participants would be required in each group to achieve 95% power for detecting an effect at  $\alpha = .05$ .

The IPA perpetrator sample consisted of 31 men who were currently enrolled in an IPA perpetration intervention program run in Western Australia. The majority of these men had spent less than one week in the program at the time of sampling. The community sample consisted of 34 men with no known history of IPA perpetration. Participants from the

community sample were recruited from the general West Australian population via convenience sampling, and from various workplaces and community groups in the Perth area (see Results section for demographic information of both groups).

### **Materials**

A demographic questionnaire (Appendix A) was used to record the critical sociodemographic characteristics of participants. Alexithymia was measured using the TAS-20 (Bagby et al., 1994); a self-report measure which consists of items rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The TAS-20 has three subscales which measure the core components of alexithymia: difficulty identifying feelings (DIF: 7 items; e.g., “*When I am upset, I don’t know if I am sad, frightened, or angry*”), difficulty describing feelings (DDF: 5 items; e.g., “*I find it hard to describe how I feel about people*”), and externally oriented thinking (EOT: 8 items; e.g., “*I prefer talking to people about their daily activities rather than their feelings*”). Possible scores on the DIF, DDF, and EOT subscales range from 7 to 35, 5 to 25, and 8 to 40, respectively; total score can range from 20 to 100. Scoring of items 4, 5, 10, 18, and 19 is reversed. A total alexithymia score is obtained by adding together the scores of the subscales. Scoring criteria are as follows: *non-alexithymic* ( $\leq 51$ ), *possible alexithymia* (52 – 60), and *alexithymic* ( $\geq 61$ ).

The TAS-20 has demonstrated sound psychometric properties in various populations (see, e.g., Bagby et al., 1994; Besharat, 2007; Parker, Taylor, & Bagby, 2003). Test-retest reliability for the overall scale is reported as generally good, with coefficient alphas ranging from .74 to .87 (Besharat, 2007; Kooiman, Spinhoven, & Trijsburg, 2002). The three-factor structure and factorial validity of the scale has also been confirmed among clinical and non-clinical samples (Parker et al., 2003). Importantly, the TAS-20 has demonstrated sufficient internal consistency (overall scale  $\alpha = .83$ ) and factorial validity within a West Australian community sample (Parry, 2012). Leising, Grande, and Faber (2009), however, reported

coefficient alphas of .86, .80, and .58 for the DIF, DDF, and EOT subscales, respectively. Similar reliability coefficients, including low internal consistency of the EOT subscale, are reported by numerous researchers (for a brief review see Parry, 2012). However, as the TAS-20 is the most widely used measure of alexithymia, and this limitation is well documented within the literature, it was decided that the scale would be used in the current study.

### **Procedures**

Participants in the perpetrator sample were recruited from various IPA intervention facilities (both residential and non-residential) within the Perth Metropolitan Region. Because there are a limited number of IPA intervention programs across Western Australia, the names and locations of these facilities have been withheld to closely protect the identity of the men who attend. Motivation of participants to attend intervention (e.g., court-mandated, voluntary) was not recorded; however, it was learned through communication with employees that the majority of men were mandated to attend. Approval to conduct research and to access participants was granted by senior management of each organisation, with the assistance of a fellow honours student and employee of one of the facilities.

The research was presented to the men before formal program activities, or during breaks, at which time they were given the opportunity to express interest in participating. The voluntary nature of participation was stressed, and it was made clear that participation or non-participation would not affect their involvement in the program. All meetings with perpetrators were conducted at the IPA intervention facilities by the primary investigator or associate investigator; standardised instructions were used by both researchers. Given the high rate of turnaround within the residential program, data collection was ongoing for approximately 3 months.

Meetings with community sample men were also conducted by the primary or associate investigator. Community participants were also given the option of completing the

questionnaires in their own time and returning them to the researcher using postage-paid envelopes. These participants were given a standardised remote instruction sheet (Appendix B) and were encouraged to contact the researcher if they required any assistance. Several community sample men opted to be emailed an electronic copy of the questionnaires and supporting documents; they were informed that consent would be implied upon returning completed questionnaires. These participants received remote instructions identical to those provided to mail-back participants.

Once voluntary participation was arranged, all men, including email and mail-back participants, were provided with an information letter (Appendix C) and informed consent form (Appendix D), and were encouraged to ask any questions about the research process. Upon obtaining informed consent, participants completed the demographic questionnaire form and the TAS-20 alexithymia questionnaire. Participants also completed a moral reasoning questionnaire to assist a fellow honours student with data collection for their project. The majority of participants took approximately 15-20 minutes to complete all questionnaire forms. Finally, interested participants were asked to fill out a contact sheet to go into the draw to win one of four \$50 Woolworths shopping vouchers.

## **Results**

### **Demographic Information**

The ages of men within the perpetrator sample ranged from 19 to 50 years ( $M = 35.23$ ,  $SD = 6.86$ ). Within this sample, the majority of men identified themselves as Anglo-Australian, followed by Aboriginal or Torres Strait Islander. Overall, education level was quite low, with 13 men not completing high school; only one man had obtained a tertiary qualification (for full ethnicity and education level information of both samples, see Table 1)

The ages of men within the community sample ranged from 18 to 81 years ( $M = 40.91$ ,  $SD = 18.13$ ). Within this sample, the majority of men identified as Anglo-Australian,

followed by Western European. Education level was considerably higher than in the perpetrator sample, with 14 men having obtained a tertiary qualification; only three men had not completed high school. Further, welfare payment status was considerably lower among the community sample; only 12% of the community men were receiving Centrelink payments, compared to 83% of the perpetrator sample.

Table 1

*Ethnicities and Education Level in the Community and Perpetrator Samples*

	Community ( <i>n</i> = 34)	Perpetrator ( <i>n</i> = 31)
Ethnicity	%	%
Aboriginal/Torres Strait Islander	5.9	19.4
Anglo-Australian	50.0	48.4
Asian	2.9	3.1
European	8.8	6.5
Eastern European	2.9	-
Western European	23.6	6.5
Other	5.9	16.1
Education Level	%	%
Did not complete high school	8.8	41.9
Graduated from high school	17.7	16.1
Trainee/apprenticeship	8.8	12.9
TAFE qualification	23.5	25.9
Tertiary/university qualification	41.2	3.2

*Note.* Education level refers the highest level of education achieved.

### Descriptive Statistics and Reliability Analysis

The descriptive statistics for both groups on the total alexithymia score and each of the subscale scores are provided in Table 2.

Table 2

*Descriptive Statistics of TAS-20 Scores for Community and Perpetrator Sample Males*

TAS-20	Community ( $n = 34$ )		Perpetrator ( $n = 31$ )	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Total score	41.12	9.53	53.39	10.63
DIF	11.09	4.17	19.45	5.77
DDF	11.03	4.15	14.42	3.23
EOT	19.00	4.53	19.52	4.20

A reliability analysis was conducted to determine the internal consistency of the overall scale and each of the three subscales. The overall scale showed acceptable internal consistency ( $\alpha = .84$ ), as did the DIF ( $\alpha = .88$ ) and DDF ( $\alpha = .70$ ) subscales. The EOT subscale, however, demonstrated poor internal consistency ( $\alpha = .58$ ). Given the questionable reliability of this subscale observed within previous research (see, e.g., Leising et al., 2009), it was retained in the current study; interpretation of findings will be made with consideration of this limitation.

### Comparison of Total Alexithymia Scores

An independent samples *t*-test was used to compare the mean total TAS-20 scores of participants in the two groups. Levene's Test for Equality of Variances was not significant, thus equal variances could be assumed. A marginally significant Shapiro-Wilk test statistics indicated that the assumption of normality was violated within the community sample,  $W(34) = .934, p < .05$ . Observations of graphical and statistical representations of normality both

suggest that skewness and kurtosis were within the acceptable limits for this variable. Accordingly, it appears that non-normality was contributed to by the presence of two unusually high TAS-20 scores in the community sample. As these outlying scores were in a location that would increase the likelihood of a Type II error, rather than a Type I error, it was decided that they would be retained. Further, the presence of high alexithymia scores (i.e., > 61) within this sample is congruent with prevalence rates of alexithymia observed within the general population (see, e.g., Taylor, 2000); therefore, such scores are not considered problematic.

The *t*-test is robust against violations of normality when sample sizes are suitably large (Keppel & Wickens, 2004), as observed by the current sample. Nonetheless, a more stringent alpha level of .01 was set to reduce any risk of inflated Type I error rate associated with non-normality. Results of the *t*-test indicated that mean TAS-20 scores were significantly higher in the perpetrator group than the general community group,  $t(63) = -4.91$ ,  $p = .001$ ,  $d = 1.22$ , 95% CI [-17.27, -7.27].

### **Comparison of Subscale Scores**

A multivariate analysis of variance (MANOVA) was performed to compare mean scores of the community and perpetrator samples on each of the three subscales of the TAS-20. Prior to conducting the MANOVA the data were examined for violations of underlying assumptions. Box's *M* was non-significant at  $\alpha = .001$ , indicating that homogeneity of variance-covariance matrices could be assumed. Correlations between dependent variables were not excessive, demonstrating an absence of multicollinearity. Within this data set, Mahalanobis distance did not exceed the critical chi square value for three degrees of freedom (at  $\alpha = .001$ ) of 16.3, indicating that multivariate outliers were not of concern. Four individual scores, however, were identified as univariate outliers; a high DIF score within the community sample, as well as two low DDF scores and a low EOT score within the

perpetrator sample. Due to the small number of outlying scores relative to the overall sample ( $N = 65$ ), as well as the location in which they are present (i.e., they would increase the chance of a Type II error rather than a Type I error), it was decided to retain these scores.

The Shapiro-Wilk test of normality for the community sample DIF subscale was statistically significant,  $W(34) = .862, p < .05$ , indicating that univariate normality was violated. Non-normality appears due to the presence of positive skew (skewness = 1.18), indicating that a large proportion of members from the community sample recorded low scores on the DIF subscale. Lower difficulty identifying emotions is unsurprising within the community sample and is not considered detrimental to the overall analysis, however may suggest a floor effect of this subscale with some populations. Furthermore, the MANOVA is robust against violations of normality when overall  $N > 40$ , with minimum  $n = 10$  per group (see Mardia, 1971; Seo, Kanda, & Fujikoshi, 1995). Based on the sufficient sample sizes within the current data set, as well as the unsurprising arrangement of positive skew, it was decided to avoid transformation and retain the original data format.

To reduce the inflated Type I error rate potentially caused by the current violation, alpha was lowered to .01 for the multivariate test. The overall MANOVA indicated a significant effect of group membership on the combined dependent variables, Pillai's Trace = .438,  $F(3, 61) = 15.85, p = .001$ , partial  $\eta^2 = .44$ . At a Bonferroni adjusted alpha level of .003, analysis of the subscale scores individually showed a significant difference between the groups on DIF scores,  $F(1, 63) = 45.50, p = .001$ , partial  $\eta^2 = .42$ , and DDF scores,  $F(1, 63) = 13.30, p = .001$ , partial  $\eta^2 = .17$ , both in the expected direction. The results indicated no significant difference between the groups on EOT scores,  $F(1, 63) = .23, p = .637$ .

### **Post Hoc Analyses**

As the researcher had access to Parry's (2012) data set of alexithymia among violent and non-violent offenders, post hoc analyses were conducted to compare incarcerated

offenders and IPA perpetrators on total alexithymia scores and each of the individual subscales. Descriptive statistics for the three groups are provided in Table 3.

Table 3

*Descriptive Statistics of TAS-20 for IPA Perpetrator and Parry's (2012) Offender Samples*

TAS-20	<i>M</i>	<i>SD</i>
IPA Perpetrators ( <i>n</i> = 31)		
Total score	53.39	10.63
DIF	19.45	5.77
DDF	14.42	3.23
EOT	19.52	4.20
Violent Offenders ( <i>n</i> = 75)		
Total score	57.93	12.62
DIF	16.80	8.10
DDF	14.80	4.05
EOT	26.33	4.27
Non-Violent Offenders ( <i>n</i> = 62)		
Total score	57.69	12.40
DIF	15.81	7.34
DDF	14.63	4.32
EOT	27.26	3.73

To compare the total alexithymia score between the three groups, a one-way analysis of variance (ANOVA) was conducted. The overall ANOVA was not statistically significant at  $\alpha = .05$ , indicating that total alexithymia score was not influenced by type of offending behaviour (i.e. IPA perpetration, violent offending, or non-violent offending),  $F(2, 165) = 1.68, p = .190, \text{partial } \eta^2 = .02$ .

A MANOVA was then conducted to examine differences between the three groups on the individual subscales of the TAS-20. At  $\alpha = .05$ , the overall MANOVA indicated a significant effect of group membership on the combined dependent variables, Pillai's Trace = .372,  $F(6, 328) = 12.51$ ,  $p = .001$ , partial  $\eta^2 = .19$ . At a Bonferroni adjusted alpha level of .017, tests of between-subject effects indicated that only EOT scores differed significantly between groups,  $F(2, 165) = 40.81$ ,  $p = .001$ , partial  $\eta^2 = .33$ . Although IPA perpetrators scored higher than violent and non-violent offenders on DIF, this difference was not statistically significant,  $F(2, 165) = 2.49$ ,  $p = .08$ , partial  $\eta^2 = .03$ . Difference between groups on DDF was also non-significant,  $F(2, 165) = .10$ ,  $p = .903$ , partial  $\eta^2 = .001$ . Tukey's Honestly Significant Difference post hoc tests indicated that IPA perpetrators scored significantly lower on EOT than both violent and non-violent incarcerated offenders.

### Discussion

The aim of this study was to compare the alexithymia scores of IPA perpetrators with those of men from the general community. As expected, IPA perpetrators had significantly higher total alexithymia scores than men from the community sample; a large effect size (Cohen, 1988) indicated greater than one standard deviation difference between the two sample means. This finding is consistent with prior studies that found higher levels of alexithymia among IPA perpetrators compared to non-perpetrators (i.e., Levin, 1999; Yelsma, 1996). It is interesting, however, that the mean alexithymia score of IPA perpetrators did not reach the clinical cut-off for a classification of alexithymia ( $\geq 61$ ). One possible explanation for this is that the different components of alexithymia may not be equally important or pronounced among IPA perpetrators (see Ueno et al., 2014), and could therefore play a greater or lesser role in IPA.

An examination of the component subscales revealed that IPA perpetrators scored significantly higher than community males on the DIF and DDF subscales, thus having

greater difficulty recognising and describing their feelings. Group membership accounted for 42% and 17% of the variance in DIF and DDF subscale scores respectively, suggesting that difficulty identifying feelings is of greatest importance among those who perpetrate IPA. Interestingly, no significant difference was found between the groups on the EOT subscale, indicating that IPA perpetrators were similar to men from the general community in respect of externally oriented thinking (i.e., lack of introspective thinking and a focus on superficial details). It could therefore be suggested that the components of alexithymia which represent deficits in the identification and verbalisation of emotions are more important in the perpetration of IPA than an externally oriented thinking style, which, according to the current findings, does not play a role in this behaviour.

The current findings support the contentions of scholars like Eckhardt et al. (2002) and Maiuro et al. (1986) that an inability to label emotions or express them assertively may facilitate abusive behaviour in some men. It makes intuitive sense that if someone cannot process and effectively communicate their emotional needs, then they will be more likely to use dysfunctional communication behaviours such as physical and verbal abuse (see Ali & Naylor, 2013). If IPA perpetrators are unable to understand how they are feeling or where the emotions come from, they are likely to displace negative affect towards an available object, or whoever they believe to be the source of their distress (Dutton, 2006). Maiuro et al. contend that intense emotions, coupled with an inability to understand or verbalise emotions, leads to a build-up of tension and frustration which increases the chance of abuse. The current findings could be interpreted in this context, as abusive behaviours may represent a maladaptive form of affective communication among men with higher levels of alexithymia (also see Taylor et al., 1992).

Greater difficulty identifying and describing emotions among IPA perpetrators is also consistent with previous research which suggests that impairments in understanding and

expressing emotional experiences may lead to reactive outbursts of aggression and abuse (e.g., Cohn et al., 2010; Dutton, 2007; Tull et al., 2007). These findings align with literature on affective numbing (e.g., Dutton, 2007) and restrictive emotionality (e.g., Cohn et al., 2009), which suggests that IPA occurs in response to the hyperarousal experienced by men who cannot identify and safely use emotional reactions. In some men, IPA could be used to terminate confusing emotions and feelings of vulnerability (also see Jakupcak, Tull, & Roemer, 2005). A major strength of the current study is that it measured these emotional deficits among actual perpetrators of IPA, and, unlike Cohn et al. (2009, 2010), did not rely on laboratory measures of aggression among community samples. Therefore, it appears that the emotional inexpressiveness previously implicated in general aggression is also important in the perpetration of specifically intimate forms of abuse.

#### **Non-Significant Difference on Externally Oriented Thinking**

A number of explanations may account for the similar externally oriented thinking scores between the groups, including the problematic psychometric properties of the TAS-20 EOT subscale (see Kooiman et al., 2002). Previous research has found low internal consistency and poor factor loadings of the EOT subscale, which suggests an on-going concern with the instrument (e.g., Leising et al., 2009; Loas et al., 2001; Müller, Bühner, & Ellgring, 2003; Parry, 2012). Within the current study, Cronbach's alpha was reported at .54 for the EOT subscale, indicating poor internal consistency. Furthermore, researchers (e.g., Kniery, 2002; Kroner & Forth, 1995) have proposed limitations to this subscale when used with special populations, such as violent individuals, suggesting that such people represent a considerably different and more heterogeneous population than the samples used during scale development.

Moreover, it is possible that the EOT subscale does not adequately represent a salient feature of the alexithymia construct, and that the TAS-20 does not measure all components of

alexithymia (Vorst & Bermond, 2001). During the development of the TAS-20, which was refined from an earlier 26-item version, several items measuring reduced mental fantasy were removed from the scale. The creators, however, argued that fantasy was still measured indirectly by the EOT subscale (see Bagby et al., 1994). Despite their argument, several researchers contend that the current factor solution of the TAS-20 diminishes the construct of alexithymia, and that it fails to sufficiently measure reduced mental fantasy (e.g., Kooiman et al., 2002; Vorst & Bermond, 2001). Because mental fantasy can cathartically decrease aggressive impulses (see Feshbach, 1955), it has been suggested that an inability to fantasise is characteristic of many violent individuals (e.g., Keltikangas-Jarvinen, 1982). If the EOT subscale does not measure this component of alexithymia, the current study would not have accounted for differences in fantasising ability which could actually be present between perpetrator and non-perpetrator populations, resulting in artefactual similarity in externally oriented thinking style.

Consideration of instrument weaknesses, however, does not explain the disparity between the current results and those reported by Parry (2012), who found that incarcerated violent and non-violent offenders differed significantly from community sample men on all three subscales of the TAS-20. It could be that rigid thinking and a tendency to avoid introspection are simply not characteristics of IPA perpetrators, who appear to struggle more with emotional recognition and communication. Theoretically, higher levels of externally oriented thinking style among Parry's offenders could be due to the nature of the crimes they committed, or the potentially atypical personality orientations among incarcerated offenders (see Ogloff, 2006, for a discussion on psychopathy and personality disorders among prisoners). As men from the current IPA perpetrator sample were recruited from community based intervention programs, it is possible that their history and level of offending were less severe than those sampled by Parry, or that those who perpetrate IPA represent a distinct

profile in respect of alexithymia. While these assertions are speculative, what can be suggested from the current data is that externally oriented thinking is not a significant component in intimate forms of abuse.

### **Comparison of IPA Perpetrators with Violent and Non-Violent Offenders**

Given these findings, post hoc analyses were conducted using Parry's (2012) original data set to compare the alexithymia levels of IPA perpetrators and incarcerated offenders. Although there was no significant difference between the groups on total alexithymia scores, IPA perpetrators scored significantly lower than violent and non-violent offenders on the EOT subscale. The notably higher mean DIF score demonstrated by IPA perpetrators, although considerable, was non-significant. These results suggest that the individual components of alexithymia may be differentially associated with various types of violent and general offending behaviours.

#### **Externally Oriented Thinking subscale.**

The significantly lower EOT scores for IPA perpetrators, together with no significant difference between IPA perpetrators and the current community sample on this subscale, further suggests that externally oriented thinking style does not play a role in IPA. One possible explanation, albeit a speculative one, is that higher levels of externally oriented thinking can be found among those who commit the types of crimes more likely to result in formal incarceration (see Lander, Lutz-Zois, Rye, & Goodnight, 2012). Moreover, it may be necessary to consider the effects of imprisonment and prison culture on the tendency for incarcerated offenders to exhibit an externally focused thinking style (see van der Helm, Stams, van der Stel, van Langen, & van der Laan, 2012). The current findings suggest that, compared to other forms of violent and non-violent criminal behaviour, externally oriented thinking style is not elevated among those who perpetrate specifically intimate forms of

abuse. This could also demonstrate that it is deficits in identifying and describing emotions that are indeed the most important components of alexithymia in the perpetration of IPA.

**Difficulty Identifying Feelings subscale.**

A smaller standard deviation among IPA perpetrators on this subscale suggests they may be a more homogeneous group in regards to difficulties identifying feelings. The non-significant difference between IPA perpetrators and other offenders on the DIF subscale is surprising given the relatively large mean differences. It is possible that the small sample size of IPA perpetrators compared to the other offender groups contributed to this non-significance, as statistical power was too low to detect an effect. Therefore, future research which utilises a larger IPA perpetrator sample may be justified to expand on this observed trend.

Although non-significant, this trend is an interesting and unique observation, which could suggest that difficulties identifying one's emotions may be more important in the perpetration of IPA than other types of offending. Intimate relationships represent a highly emotional setting, in which affective communication is critical to resolve conflict and express emotions (Humphreys et al., 2009). Therefore, it would make sense that those who perpetrate intimate abuse have difficulties understanding the often turbulent emotions elicited in intimate relationships, and that these difficulties may not be as pronounced amongst those who perpetrate violence outside of a relationship (see, e.g., Dutton, 2007). Given the nature of the current study, however, it cannot be concluded whether having greater difficulty identifying feelings increases the chance of perpetrating IPA, or whether greater difficulty identifying feelings is a consequence of the confusing and unstable relationships in which some IPA perpetrators are involved (see Holtzworth-Munroe et al., 1997). Regardless, it must be made explicit that the current researcher observed a non-significant trend, and judgement should be suspended until more adequate research is conducted.

### **Limitations and Opportunities for Further Research**

Several important limitations must be considered during interpretation and application of the current findings. One potential limitation is the assumption that men within the community sample had no history of IPA perpetration. Given the cited prevalence rates of IPA, it is conceivable that some men within this sample may currently perpetrate, or have previously perpetrated IPA. This may have introduced measurement error as potential perpetrators could not be ruled out. However, this limitation was conceded as the researcher was unable to devise a practical and ethically appropriate way of obtaining perpetration status in the community sample; simply asking was considered inappropriate and conducive to response bias. Future research should consider ways of assessing IPA within community samples which will allow a cleaner distinction between IPA perpetrators and non-perpetrators.

Secondly, the current study did not determine the nature of abusive acts among the perpetrator sample. This is problematic as alexithymia could play a greater or lesser role in different forms of IPA (e.g., physical violence, emotional abuse, and verbal abuse). Although verbal and psychological forms of abuse can also occur due to an inability to communicate emotions (see Holtzworth-Munroe et al., 1997), most of the reviewed literature focused on the role of alexithymia in physical abuse. Extension to other types of IPA is therefore questionable, as non-physical forms of abuse may have different origins and behavioural antecedents to physical IPA (see Capaldi, Knoble, Shortt, & Kim, 2012). Further research should investigate alexithymia in different types of IPA, and would benefit from collecting information on the history and severity of IPA perpetration to further understand the role of alexithymia in this behaviour.

Perhaps most important was the potentially unrepresentative community sample, and the resultant disparity between groups on variables such as age, education, and ethnicity. The

use of convenience sampling resulted in the recruitment of many participants who were socioeconomically similar to the investigators. While no current university students were recruited, education level was considerably higher within the community sample. The original intention of this study was to match samples on sociodemographic variables; however, recruiting from lower socioeconomic areas was difficult given the limited time and resources available to the researchers. This is unfortunate, as elevated alexithymia scores among IPA perpetrators may have been influenced by the lower socioeconomic status and education level<sup>1</sup> within this population (see Cunradi, Caetano, & Schafer, 2002), and not solely accounted for by IPA perpetration status. Future research should therefore consider stratified random sampling or a more systematic procedure to ensure matching on socioeconomic variables.

While not considered a limitation, it needs to be made explicit that the design of this study was not experimental. As IPA perpetration status could not be practically or ethically manipulated, random assignment to a perpetration or non-perpetration condition was not possible; thus, a quasi-experimental design was used. Because the study was not experimental, it is not possible to infer that alexithymia causes IPA (for limitations of quasi-experimental designs see Loewen, 2010). Other variables which may account for alexithymia and perpetrator status (e.g., childhood abuse, insecure attachment, personality disorders) could not be ruled out by this study. It is possible that men who perpetrate IPA are simply less capable of identifying and describing emotions because of the vast educational, socioeconomic, personality, and trauma-related correlates of IPA (see, e.g., Dixon & Browne, 2003), and that alexithymia does not actually cause this behaviour. Nonetheless, detecting

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<sup>1</sup> There is disagreement in the literature regarding the effect of education on alexithymia. Some studies report higher levels of alexithymia among people with lower levels of education (e.g., Franz et al., 2008; Lane, Sechrest, & Riedel, 1998), while others report no link between education and alexithymia (e.g., Celikel et al., 2010; Celikel & Saatcioglu, 2007). As lower education may also confound with other sociodemographic or personal factors related to IPA, the influence of education was not of specific interest to the current study. Nonetheless, it may be a consideration for future research within this population.

higher levels of alexithymia among those who perpetrate IPA is an important finding with significant theoretical and clinical implications.

### **Theoretical Implications**

This study has suggested that the individual components of alexithymia are not uniformly elevated among those who perpetrate IPA. This is theoretically interesting because it suggests that difficulties identifying and describing emotions plays an important role in the perpetration of IPA, while an externally oriented style of thinking does not. Such a finding could connect to the literature on emotional dysregulation, whereby difficulty managing affect can increase the risk of intimate abuse (see Tager, Good, & Brammer, 2010). The role of alexithymia in behavioural traits related to IPA, such as hostility and impulsiveness, should also be considered (see, e.g., Shishido et al., 2013).

Similarly, the current findings support the suggestion that overall TAS-20 scores should not be used as a unidimensional measure of alexithymia (see, e.g., Ueno et al., 2014). The results of this study suggest that a unidimensional approach is relatively uninformative, particularly when trying to understand the role of alexithymia in certain behaviours (also see Tominaga et al., 2014). Moreover, the post hoc analyses with Parry's (2012) offender data suggested that the individual components of alexithymia may play a differential role in various forms of offending and violent behaviour. This is a significant theoretical implication which could supplement literature on the aetiology and correlates of interpersonal violence. It also suggests a need to understand how intimate and non-intimate violence perpetrators differ on important characteristics, including personality orientations and cognitive functioning.

Further, this study supplements reports that the EOT subscale of the TAS-20 is psychometrically weak, and supports Kniery's (2002) contention that the scale may not be suitable to measure alexithymia in special populations (e.g., IPA perpetrators). It is therefore difficult to determine whether similar EOT scores between the current community and

perpetrator groups are related to the relative unimportance of externally oriented thinking in IPA, or created artefactually by a failure of the instrument. To strengthen the measurement of alexithymia, the inability of the TAS-20 to measure reduced mental fantasy should be addressed, particularly in light of the proposed function of fantasy to reduce aggression (see Keltikangas-Jarvinen, 1982).

### **Practical Implications for IPA Management and Intervention**

Higher levels of alexithymia among IPA perpetrators, particularly difficulties identifying and describing feelings, illustrates the role of emotional components in intimate abuse. Higher levels of alexithymia in this population suggests that it should be generally assessed and treated in IPA intervention, and that interventions may need to be modified to cater for the needs of alexithymic men. Alexithymic individuals typically respond poorly to emotion-focused treatments which require the exploration and verbalisation of emotions (Grabe et al., 2008; Leweke, Bausch, Leichsenring, Walter, & Stingl, 2009). If, as the current findings suggest, alexithymia levels are higher among men who perpetrate IPA, unsuitable treatments may contribute to the high attrition rates from IPA intervention programs (see Day et al., 2010). Because dominant models of intervention view IPA as a choice of the perpetrator, they typically ignore the psychological components of abusiveness and are thus ineffective to the needs of many abusive men (Dutton & Nicholls, 2005).

The majority of IPA intervention programs in Australia are psychoeducational models (Day, Chung, O'Leary, & Carson, 2009) in which IPA is conceptualised as men's instrumental use of violence to control a partner. Consequently, such interventions do not treat individual psychological and emotional components of IPA, or they attempt to instruct emotional awareness at a cognitive level (Dutton & Corvo, 2007); explaining emotions to a person who is incapable of understanding them is a counterproductive process. As alexithymia appears to be a stable personality trait linked to poor treatment outcomes (Taylor

& Bagby, 2013), behavioural interventions may be more effective to assist these men in coping with emotionally stressful situations (see Porcelli et al., 2003). Supportive psychotherapy, which integrates psychodynamic, cognitive-behavioural, and interpersonal models, has also been suggested as a potential therapeutic approach for alexithymia (see, e.g., Freyberger, 1977; Ogrodniczuk, Joyce, & Piper, 2013). Literature on the treatment of alexithymic IPA perpetrators specifically, however, is limited, and research is needed to develop effective intervention techniques for this population.

Lastly, these findings could support the utility of conjoint treatment for couples experiencing IPA. Such an approach is generally avoided to prevent the blaming and further endangerment of the victim (Harris, 2006). However, if IPA is somehow related to difficulties identifying and safely expressing emotions, perhaps interventions which assist couples in affective communication and conflict resolution would be beneficial (see, e.g., Pérusse et al., 2012). Many acts of IPA are believed to occur in the context of arguments between partners, and, if considered appropriate, some couples may benefit from a relational or interactionist approach to treatment (see Dutton, 2006). Improving communication between partners could also reduce the tendency of alexithymic men to misinterpret emotional cues which promotes abusiveness. Therefore, addressing the relationship dynamics which contribute to confusing emotions may be an essential component of treatment for alexithymic men who perpetrate IPA (see Stith & McCollum, 2011).

### **Conclusion**

This study supported the findings of previous researchers (i.e., Levin, 1999; Yelsma, 1996) that men who perpetrate IPA have higher levels of alexithymia than men within the general community. Alexithymia could therefore be a useful construct to synthesise and measure some of the emotional deficits found among IPA perpetrators. The present study expanded on earlier research by comparing IPA perpetrators and community men on the

individual subscales of the TAS-20. By doing so, the current findings suggest that IPA perpetrators have greater difficulty identifying and describing their emotions than men from the general community. This finding lends support to the contentions of Maiuro et al. (1986) and Eckhardt et al. (2002) that an inability to label and effectively communicate emotions may facilitate intimate abuse. No difference between the groups on externally oriented thinking style suggests that this component of alexithymia does not play a role in the perpetration of IPA.

This study has presented several implications for research and practice. The proposed differences between IPA perpetrators and other offenders are interesting, yet require further empirical examination to expand on observed trends. The results also support emerging evidence that alexithymia should not be considered a unidimensional construct (see Ueno et al., 2014). Finding higher levels of alexithymia among IPA perpetrators suggests a need to seriously consider this component in the management and treatment of intimately abusive men. If interventions are to be successful within this population, it is necessary to develop programs which assist men in understanding and tolerating difficult emotional experiences. The implication of alexithymia in IPA should therefore inform a comprehensive model of perpetrator treatment which considers the psychological and emotional components of IPA.

## References

- Adams, P. J. (2012). Interventions with men who are violent to their partners: Strategies for early engagement. *Journal of Marital and Family Therapy*, 38(3), 458-470. doi: 10.1111/j.1752-0606.2012.00320.x
- Ali, P. A., & Naylor, P. B. (2013). Intimate partner violence: A narrative review of the biological and psychological explanations for its causation. *Aggression and Violent Behavior*, 18(3), 373-382. doi: 10.1016/j.avb.2013.01.003
- Allan, A. & Allan, M. M. (2014). The definition and nature of domestic violence. In M. F. Taylor & J. A. Pooley (Eds.), *Overcoming domestic violence: Creating a dialogue round vulnerable populations* (pp. 1-17). Hauppauge, NY: Nova Science Publishers
- Allen, K., Calsyn, D. A., Fehrenbach, P. A., & Benton, G. (1989). A study of the interpersonal behaviors of male batterers. *Journal of Interpersonal Violence*, 4(1), 79-89. doi: 10.1177/088626089004001005
- Aust, S., Härtwig, E. A., Heuser, I., & Bajbouj, M. (2013). The role of early emotional neglect in alexithymia. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5(3), 225-232. doi: 10.1037/a0027314
- Australian Bureau of Statistics (2013). *2012 personal safety survey: Experience of partner violence* (No. 4906.0). Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4906.0Chapter7002012>
- Australian Institute of Criminology (2004). *Women's experiences of male violence: Findings from the Australian component of the International Violence Against Women Survey* (No. 56). Retrieved from <http://www.aic.gov.au/publications/current%20series/rpp/41-60/rpp56.html>

- Australian Institute of Criminology (2009). *Intimate partner abuse of women in a Central Queensland mining region* (No. 378). Retrieved from <http://www.aic.gov.au/publications/current%20series/tandi/361-380/tandi378.html>
- Bagby, R. M., Parker, J. D. A., & Taylor, G. J. (1994). The twenty-item Toronto Alexithymia Scale--I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research, 38*(1), 23-32. doi: 10.1016/0022-3999(94)90005-1
- Bamonti, P. M., Heisel, M. J., Topciu, R. A., Franus, N., Talbot, N. L., & Duberstein, P. R. (2010). Association of alexithymia and depressive symptoms severity in adults 50 years of age and older. *American Journal of Geriatric Psychiatry, 18*(1), 51-56. doi: 10.1097/JGP.0b013e3181bd1bfe
- Barbour, K. A., Eckhardt, C. I., Davison, G. C., & Kassinove, H. (1998). The experience and expression of anger in maritally violent and maritally discordant-nonviolent men. *Behaviour Therapy, 29*(2), 173-191. doi: 10.1016/s0005-7894(98)80001-4
- Becerra, R., Amos, A., & Jongenelis, S. (2002). Organic alexithymia: A study of acquired emotional blindness. *Brain Injury, 16*(7), 633-645. doi: 10.1080/02699050110119817
- Besharat, M. A. (2007). Reliability and factorial validity of a Farsi version of the 20-item Toronto Alexithymia Scale with a sample of Iranian students. *Psychological Reports, 101*(5), 209-220. doi: 10.2466/pr0.101.5.209-220
- Busch, N. B., Bell, H., Hotaling, N., & Monto, M. A. (2002). Male customers of prostituted women: Exploring perceptions of entitlement to power and control and implications for violent behaviour toward women. *Violence Against Women, 8*, 1093-1112. doi: 10.1177/107780102401101755
- Caldwell, J. E., Swan, S. C., & Woodbrown, V. D. (2012). Gender differences in intimate partner violence outcomes. *Psychology of Violence, 2*, 42-57. doi: 10.1037/a0026296

- Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse, 3*(2), 231-280. doi: 10.1891/1946-6560.3.2.231
- Carpenter, K. M., & Addis, M. E. (2000). Alexithymia, gender, and responses to depressive symptoms. *Sex Roles, 43*(9/10), 629-644. doi: 10.1023/A:1007100523844
- Celikel, F. C., Kose, S., Erkorkmaz, U., Sayar, K., Cumurcu, B. E., & Cloninger, C. R. (2010). Alexithymia and temperament and character model of personality in patients with major depressive disorder. *Comprehensive Psychiatry, 51*(1), 64-70. doi: 10.1016/j.comppsy.2009.02.004
- Celikel, F. C., & Saatcioglu, O. (2007). Alexithymia and anxiety sensitivity in Turkish depressive, anxiety and somatoform disorder outpatients. *International Journal of Psychiatry in Clinical Practice, 11*(2), 140-145. doi: 10.1080/13651500600971521
- Clements, K., Holtzworth-Munroe, A., Schweinle, W., & Ickes, W. (2007). Empathic accuracy of intimate partners in violent versus nonviolent relationships. *Personal Relationships, 14*(3), 369-388. doi: 10.1111/j.1475-6811.2007.00161.x
- Clements, K., & Schumacher, J. A. (2010). Perceptual biases in social cognition as potential moderators of the relationship between alcohol and intimate partner violence: A review. *Aggression and Violent Behavior, 15*(5), 357-368. doi: 10.1016/j.avb.2010.06.004
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Cohn, A. M., Jakupcak, M., Seibert, L. A., Hildebrandt, T. B., & Zeichner, A. (2010). The role of emotion dysregulation in the association between men's restrictive emotionality and use of physical aggression. *Psychology of Men & Masculinity, 11*(1), 53-64. doi: 10.1037/a0018090

- Cohn, A. M., Seibert, L. A., & Zeichner, A. (2009). The role of restrictive emotionality, trait anger, and masculinity threat in men's perpetration of physical aggression. *Psychology of Men & Masculinity, 10*(3), 218-224. doi: 10.1037/a0015151
- Cook, R., Brewer, R., Shah, P., & Bird, G. (2013). Alexithymia, not autism, predicts poor recognition of emotional facial expressions. *Psychological Science, 24*(5), 723-732. doi: 10.1177/0956797612463582
- Covell, C. N., Huss, M. T., & Langhinrichsen-Rohling, J. (2007). Empathic deficits among male batterers: A multidimensional approach. *Journal of Family Violence, 22*(3), 165-174. doi: 10.1007/s10896-007-9066-2
- Cunradi, C. B., Caetano, R., & Schafer, J. (2002). Socioeconomic predictors of intimate partner violence among White, Black, and Hispanic couples in the United States. *Journal of Family Violence, 17*(4), 377-389. doi: 10.1023/A:1020374617328
- Day, A., Chung, D., O'Leary, P., & Carson, E. (2009). Programs for men who perpetrate domestic violence: An examination of the issues underlying the effectiveness of intervention programs. *Journal of Family Violence, 24*(3), 203-212. doi: 10.1007/s10896-008-9221-4
- Day, A., Chung, D., O'Leary, P., Justo, D., Moore, S., Carson, E., & Gerace, A. (2010). *Integrated responses to domestic violence: Legally mandated intervention programs for male perpetrators* (No. 404). Retrieved from <http://www.aic.gov.au/publications/current%20series/tandi/401-420/tandi404.html>
- Delsol, C., & Margolin, G. (2004). The role of family-of-origin violence in men's marital violence perpetration. *Clinical Psychology Review, 24*(1), 99-122. doi: 10.1016/j.cpr.2003.12.001
- Dixon, L., & Browne, K. (2003). The heterogeneity of spouse abuse: A review. *Aggression and Violent Behavior, 8*(1), 107-130. doi: 10.1016/s1359-1789(02)00104-0

- Dixon, L., & Graham-Kevan, N. (2011). Understanding the nature and etiology of intimate partner violence and implications for practice and policy. *Clinical Psychology Review, 31*(7), 1145-1155. doi: 10.1016/j.cpr.2011.07.001
- Dobson, W.A. (2005). *Relationship between alexithymia, depression, anxiety, and the propensity for abusiveness in male batterers*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. 3187202)
- Dutton, D. G. (1999). Traumatic origins of intimate rage. *Aggression and Violent Behavior, 4*(4), 431-447. doi: 10.1016/S1359-1789(98)00027-5
- Dutton, D. G. (2006). *Rethinking domestic violence*. Vancouver: UBC Press.
- Dutton, D. G. (2007). *The abusive personality: Violence and control in intimate relationships* (2nd ed.). New York, NY: Guilford.
- Dutton, D. G., & Corvo, K. (2006). Transforming a flawed policy: A call to revive psychology and science in domestic violence research and practice. *Aggression and Violent Behavior, 11*(5), 457-483. doi: 10.1016/j.avb.2006.01.007
- Dutton, D. G., & Corvo, K. (2007). The Duluth model: A data-impervious paradigm and a failed strategy. *Aggression and Violent Behavior, 12*(6), 658-667. doi: 10.1016/j.avb.2007.03.002
- Dutton, D. G., & Nicholls, T. L. (2005). The gender paradigm in domestic violence research and theory: Part 1 - the conflict of theory and data. *Aggression and Violent Behaviour, 10*, 680-714. doi: 10.1016/j.avb.2005.02.001
- Dutton, D. G., Nicholls, T. L., & Spidel, A. (2005). Female perpetrators of intimate abuse. *Journal of Offender Rehabilitation, 41*, 1-31. doi: 10.1300/J076v41n04\_01
- Eckhardt, C., Jamison, T. R., & Watts, K. (2002). Anger experience and expression among male dating violence perpetrators during anger arousal. *Journal of Interpersonal Violence, 17*(10), 1102-1114. doi: 10.1177/088626002236662

- Eckhardt, C., Samper, R. E., & Murphy, C. M. (2008). Anger disturbances among perpetrators of intimate partner violence: Clinical characteristics and outcome of court-mandated treatment. *Journal of Interpersonal Violence, 23*(11), 1600-1617. doi: 10.1177/0886260508314322
- Ehrensaft, M. K., Cohen, P., & Johnson, J. G. (2006). Development of personality disorder symptoms and the risk for partner violence. *Journal of Abnormal Psychology, 115*(3), 474-483. doi: 10.1037/0021-843X.115.3.474
- Evren, C., Evren, B., Dalbudak, E., Ozcelik, B., & Oncu, F. (2009). Childhood abuse and neglect as a risk factor for alexithymia in adult male substance dependent inpatients. *Journal of Psychoactive Drugs, 41*(1), 85-92. doi: 10.1080/02791072.2009.10400677
- Feshbach, S. (1955). The drive-reducing function of fantasy behavior. *The Journal of Abnormal and Social Psychology, 50*(1), 3-11. doi: 10.1037/14156-006
- Fisher, A. R., & Good, G. E. (1997). Men and psychotherapy: An investigation of alexithymia, intimacy, and masculine gender roles. *Psychotherapy: Theory, Research, Practice, Training, 34*(2), 160-170. doi: 10.1037/h0087646
- Fossati, A., Acquarini, E., Feeney, J. A., Borroni, S., Grazioli, F., Giarolli, L. E., . . . Maffei, C. (2009). Alexithymia and attachment insecurities in impulsive aggression. *Attachment and Human Development, 11*(2), 165-182. doi: 10.1080/14616730802625235
- Franz, M., Popp, K., Schaefer, R., Sitte, W., Schneider, C., Hardt, J., . . . Braehler, E. (2008). Alexithymia in the German general population. *Social Psychiatry and Psychiatric Epidemiology, 43*(1), 54-62. doi: 10.1007/s00127-007-0265-1
- Freyberger, H. J. (1977). Supportive psychotherapeutic techniques in primary and secondary alexithymia. *Psychotherapy and Psychosomatics, 28*(1-4), 337-342. doi: 10.1159/000287080

- Fukunishi, I., Sei, H., Morita, Y., & Rahe, R. H. (1999). Sympathetic activity in alexithymics with mother's low care. *Journal of Psychosomatic Research*, *46*(6), 579-589. doi: 10.1016/s0022-3999(98)00083-x
- Grabe, H. J., Frommer, J., Ankerhold, A., Ulrich, C., Groger, R., Franke, G. H., . . . Spitzer, C. (2008). Alexithymia and outcome in psychotherapy. *Psychotherapy and Psychosomatics*, *77*(3), 189-194. doi: 10.1159/000119739
- Grynberg, D., Luminet, O., Corneille, O., Grèzes, J., & Berthoz, S. (2010). Alexithymia in the interpersonal domain: A general deficit of empathy? *Personality and Individual Differences*, *49*(8), 845-850. doi: 10.1016/j.paid.2010.07.013
- Harris, G. E. (2006). Conjoint therapy and domestic violence: Treating the individual and the relationship. *Counselling Psychology Quarterly*, *19*(4), 373-379. doi: 10.1080/09515070601029533
- Heinzel, A., Schafer, R., Muller, H. W., Schieffer, A., Ingenhag, A., Eickhoff, S. B., . . . Hautzel, H. (2010). Increased activation of the supragenual anterior cingulate cortex during visual emotional processing in male subjects with high degrees of alexithymia: An event-related fMRI study. *Psychotherapy and Psychosomatics*, *79*(6), 363-370. doi: 10.1159/000320121
- Holtzworth-Munroe, A., Smutzler, N., & Bates, L. (1997). A brief review of the research on husband violence part III: Sociodemographic factors, relationship factors, and differing consequences of husband and wife violence. *Aggression and Violent Behavior*, *2*(3), 285-307. doi: 10.1016/s1359-1789(96)00017-1
- Holtzworth-Munroe, A., & Stuart, G. L. (1994). Typologies of male batterers: Three subtypes and the differences among them. *Psychological Bulletin*, *116*(3), 476-497. doi: 10.1037//0033-2909.116.3.476

- Honkalampi, K., Koivumaa-Honkanen, H., Tanskanen, A., Hintikka, J., Lehtonen, J., & Viinamaki, H. (2001). Why do alexithymic features appear to be stable?: A 12-month follow-up study of a general population. *Psychotherapy and Psychosomatics*, *70*(5), 247-253. doi: 10.1159/000056262
- Hornsveld, R. H. J., & Kraaimaat, F. W. (2012). Alexithymia in Dutch violent forensic psychiatric outpatients. *Psychology, Crime & Law*, *18*(9), 833-846. doi: 10.1080/1068316x.2011.568416
- Humphreys, T. P., Wood, L. M., & Parker, J. D. A. (2009). Alexithymia and satisfaction in intimate relationships. *Personality and Individual Differences*, *46*(1), 43-47. doi: 10.1016/j.paid.2008.09.002
- Ihme, K., Sacher, J., Lichev, V., Rosenberg, N., Kugel, H., Rufer, M., . . . Suslow, T. (2014). Alexithymia and the labelling of facial emotions: Response slowing and increased motor and somatosensory processing. *BMC Neuroscience*, *15*(1), 40-49. doi: 10.1186/1471-2202-15-40
- Jakupcak, M. (2003). Masculine gender role stress and men's fear of emotions as predictors of self-reported aggression and violence. *Violence and Victims*, *18*(5), 533-541. doi: 10.1891/088667003780928116
- Jakupcak, M., Tull, M. T., & Roemer, L. (2005). Masculinity, shame, and fear of emotions as predictors of men's expressions of anger and hostility. *Psychology of Men & Masculinity*, *6*(4), 275-284. doi: 10.1037/1524-9220.6.4.275
- Joukamaa, M., Kokkonen, P., Veijola, J., Laksy, K., Karvonen, J.T., Jokelainen, J., & Jarvelin, M. (2003). Social situation of expectant mothers and alexithymia 31 years later in their offspring: A prospective study. *Psychosomatic Medicine*, *65*(2), 307-312. doi: 10.1097/01.psy.0000030389.53353.bc

- Keltikangas-Jarvinen, L. (1982). Alexithymia in violent offenders. *Journal of Personality Assessment, 46*(5), 462-467. doi: 10.1207/s15327752jpa4605\_3
- Keppel, G., & Wickens, T. D. (2004). *Design and analysis: A researcher's handbook* (4th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Kniery, B.J. (2002). *Examining the psychometric properties of the Toronto Alexithymia Scale-20 with a sample of domestic violence offenders*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. 3050248)
- Kooiman, C. G., Spinhoven, P., & Trijsburg, R. W. (2002). The assessment of alexithymia: A critical review of the literature and a psychometric study of the Toronto Alexithymia Scale-20. *Journal of Psychosomatic Research, 53*(6), 1083-1090. doi: 10.1016/S0022-3999(02)00348-3
- Kroner, D. G., & Forth, A. E. (1995). The Toronto Alexithymia Scale with incarcerated offenders. *Personality and Individual Differences, 19*(5), 625-634. doi: 10.1016/0191-8869(95)00116-n
- Kupferberg, S. (2002). *The relation between alexithymia and aggression in a nonclinical sample*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. 3057030)
- Lander, G. C., Lutz-Zois, C. J., Rye, M. S., & Goodnight, J. A. (2012). The differential association between alexithymia and primary versus secondary psychopathy. *Personality and Individual Differences, 52*(1), 45-50. doi: 10.1016/j.paid.2011.08.027
- Lane, R. D., Sechrest, L., Reidel, R., Weldon, V., Kaszniak, A., & Schwartz, G. E. (1996). Impaired verbal and nonverbal emotion recognition in alexithymia. *Psychosomatic Medicine, 58*(3), 203-210. doi: 10.1097/00006842-199605000-00002
- Lane, R. D., Sechrest, L., & Riedel, R. (1998). Sociodemographic correlates of alexithymia. *Comprehensive Psychiatry, 39*(6), 377-385. doi: 10.1016/S0010-440X(98)90051-7

- Leising, D., Grande, T., & Faber, R. (2009). The Toronto Alexithymia Scale (TAS-20): A measure of general psychological distress. *Journal of Research in Personality, 43*(4), 707-710. doi: 10.1016/j.jrp.2009.03.009
- Levant, R. F., Hall, R. J., Williams, C. M., & Hasan, N. T. (2009). Gender differences in alexithymia. *Psychology of Men & Masculinity, 10*(3), 190-203. doi: 10.1037/a0015652
- Levin, M. S. (1999). *Alexithymia and the empathic ability of a batterer population*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. 1401438)
- Leweke, F., Bausch, S., Leichsenring, F., Walter, B., & Stingl, M. (2009). Alexithymia as a predictor of outcome of psychodynamically oriented inpatient treatment. *Psychotherapy Research, 19*(3), 323-331. doi: 10.1080/10503300902870554
- Loas, G., Corcos, M., Stephan, P., Pellet, J., Bisouard, P., Venisse, J. L., . . . Jeammet, P. (2001). Factorial structure of the 20-item Toronto Alexithymia Scale: Confirmatory factor analysis in nonclinical and clinical samples. *Journal of Psychosomatic Research, 50*(5), 255-261. doi: 10.1016/s0022-3999(01)00197-0
- Loewen, P. J. (2010). Quasi-experimental design. In A. J. Mills, G. Durepos & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 767-769). Thousand Oaks, CA: SAGE.
- Louth, S. M., Hare, R. D., & Linden, W. (1998). Psychopathy and alexithymia in female offenders. *Canadian Journal of Behavioural Science, 30*(2), 91-98. doi: 10.1037/h0085809
- Maiuro, R. D., Cahn, T. S., & Vitaliano, P. P. (1986). Assertiveness deficits and hostility in domestically violent men. *Violence and Victims, 1*(4), 279-289. doi:

<http://search.proquest.com.ezproxy.ecu.edu.au/docview/208569054/fulltextPDF?accountid=10675>

- Maiuro, R. D., Cahn, T. S., Vitaliano, P. P., Wagner, B. C., & Zegree, J. B. (1988). Anger, hostility, and depression in domestically violent versus generally assaultive men and nonviolent control subjects. *Journal of Consulting and Clinical Psychology, 56*(1), 17-23. doi: 10.1037/0022-006X.56.1.17
- Mardia, K. V. (1971). The effect of nonnormality on some multivariate tests and robustness to nonnormality in the linear model. *Biometrika, 58*(1), 105-121. doi: 10.2307/2334321
- Margolin, G., John, R. S., & Gleberman, L. (1988). Affective responses to conflictual discussions in violent and nonviolent couples. *Journal of Consulting and Clinical Psychology, 56*(1), 24-33. doi: 10.1037/0022-006X.56.1.24
- Marshall, A.D. (2004). *Violent husbands' recognition of emotional expressions among the faces of strangers and their wives*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. 3162247)
- Marshall, A. D., & Holtzworth-Munroe, A. (2010). Recognition of wives' emotional expressions: A mechanism in the relationship between psychopathology and intimate partner violence perpetration. *Journal of Family Psychology, 24*(1), 21-30. doi: 10.1037/a0017952
- McDermott, R. C., & Lopez, F. G. (2013). College men's intimate partner violence attitudes: Contributions of adult attachment and gender role stress. *Journal of Counseling Psychology, 60*, 127-136. doi: 10.1037/a0030353
- McDermott, R., Tingley, D., Cowden, J., Frazzetto, G., & Johnson, D. P. (2009). Monoamine oxidase A gene (MAOA) predicts behavioral aggression following provocation.

- Proceedings of the National Academy of Sciences*, 106(7), 2118-2123. doi: 10.1073/pnas.0808376106
- Miller, L. A., Collins, R. L., & Kent, T. A. (2008). Language and the modulation of impulsive aggression. *The Journal of Neuropsychiatry and Clinical Neurosciences*, 20(3), 261-273. doi: 10.1176/appi.neuropsych.20.3.261
- Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin*, 103(3), 324-344. doi: 10.1037//0033-2909.103.3.324
- Montebarocci, O., Codispoti, M., Baldaro, B., & Rossi, N. (2004). Adult attachment style and alexithymia. *Personality and Individual Differences*, 36(3), 499-507. doi: 10.1016/S0191-8869(03)00110-7
- Moore, T. M., & Stuart, G. L. (2005). A review of the literature on masculinity and partner violence. *Psychology of Men & Masculinity*, 6(1), 46-61. doi: 10.1037/1524-9220.6.1.46
- Moriguchi, Y., Decety, J., Ohnishi, T., Maeda, M., Mori, T., Nemoto, K., . . . Komaki, G. (2007). Empathy and judging other's pain: An fMRI study of alexithymia. *Cerebral Cortex*, 17(9), 2223-2234. doi: 10.1093/cercor/bhl130
- Müller, J., Bühner, M., & Ellgring, H. (2003). Is there a reliable factorial structure in the 20-item Toronto Alexithymia Scale? A comparison of factor models in clinical and normal adult samples. *Journal of Psychosomatic Research*, 55(6), 561-568. doi: 10.1016/s0022-3999(03)00033-3
- Nemiah, J. C., & Sifneos, P. E. (1970). Psychosomatic illness: A problem in communication. *Recent Research in Psychosomatics*, 18, 154-160. doi: 10.1159/000286074
- New, A. S., Rot, M., Ripoll, L. H., Perez-Rodrigues, M. M., Lazarus, S., Zipursky, E., . . . Siever, L. J. (2012). Empathy and alexithymia in borderline personality disorder:

- Clinical and laboratory measures. *Journal of Personality Disorders*, 26(5), 660-675.  
doi: 10.1521/pedi\_2012\_26\_037
- Norlander, B., & Eckhardt, C. (2005). Anger, hostility, and male perpetrators of intimate partner violence: A meta-analytic review. *Clinical Psychology Review*, 25(2), 119-152. doi: 10.1016/j.cpr.2004.10.001
- Ogloff, J. R. P. (2006). Psychopathy/antisocial personality disorder conundrum. *Australian and New Zealand Journal of Psychiatry*, 40(6), 519-529. doi: 10.1111/j.1440-1614.2006.01834.x
- Ogrodniczuk, J. S., Joyce, A. S., & Piper, W. E. (2013). Change in alexithymia in two dynamically informed individual psychotherapies. *Psychotherapy and Psychosomatics*, 82(1), 63-63. doi: 10.1159/000341180
- Oskis, A., Clow, A., Hucklebridge, F., Bifulco, A., Jacobs, C., & Loveday, C. (2013). Understanding alexithymia in female adolescents: The role of attachment styles. *Personality and Individual Differences*, 54(1), 97-102. doi: 10.1016/j.paid.2012.08.023
- Pan, A., Daley, S., Rivera, L. M., Williams, K., Lingle, D., & Reznik, V. (2006). Understanding the role of culture in domestic violence: The Ahimsa Project for Safe Families. *Journal of Immigrant and Minority Health*, 8(1), 35-43. doi: 10.1007/s10903-006-6340-y
- Parker, J. D. A., Taylor, G. J., & Bagby, R. M. (2003). The 20-Item Toronto Alexithymia Scale III. Reliability and factorial validity in a community population. *Journal of Psychosomatic Research*, 55, 269-275. doi: 10.1016/S0022-3999(02)00578-0
- Parry, C. (2012). *The nature of the association between male violent offending and alexithymia*. (Doctoral dissertation). Retrieved from <http://ro.ecu.edu.au/theses/483>

- Pérusse, F., Boucher, S., & Fernet, M. (2012). Observation of couple interactions: Alexithymia and communication behaviors. *Personality and Individual Differences*, 53(8), 1017-1022. doi: 10.1016/j.paid.2012.07.022
- Pico-Alfonso, M. A., Garcia-Linares, M. I., Celda-Navarro, N., Blasco-Ros, C., Echeburua, E., & Martinez, M. (2006). The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: Depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *Journal of Women's Health*, 15(5), 599-611. doi: 10.1089/jwh.2006.15.599
- Porcelli, P., Bagby, M., Taylor, G. J., De Carne, M., Leandro, G., & Todarello, O. (2003). Alexithymia as predictor of treatment outcome in patients with functional gastrointestinal disorders. *Psychosomatic Medicine*, 65(5), 911-918. doi: 10.1097/01.psy.0000089064.13681.3b
- Prkachin, G. C., Casey, C., & Prkachin, K. M. (2009). Alexithymia and perception of facial expressions of emotion. *Personality and Individual Differences*, 46(4), 412-417. doi: 10.1016/j.paid.2008.11.010
- Saarijärvi, S., Salminen, J. K., & Toikka, T. (2006). Temporal stability of alexithymia over a five-year period in outpatients with major depression. *Psychotherapy and Psychosomatics*, 75(2), 107-112. doi: 10.1159/000090895
- Schore, A. N. (2005). Attachment, affect regulation, and the developing right brain: Linking developmental neuroscience to pediatrics. *Pediatrics in Review*, 26(6), 204-217. doi: 10.1542/pir.26-6-204
- Schumacher, J. A., Feldbau-Kohn, S., Slep, A. M., & Heyman, R. E. (2001). Risk factors for male-to-female partner physical violence. *Aggression and Violent Behavior*, 6(2-3), 281-352. doi: 10.1016/s1359-1789(00)00027-6

- Seo, T., Kanda, T., & Fujikoshi, Y. (1995). The effects of nonnormality on tests for dimensionality in canonical correlation and MANOVA models. *Journal of Multivariate Analysis*, 52(2), 325-337. doi: 10.1006/jmva.1995.1017
- Shishido, H., Gaher, R. M., & Simons, J. S. (2013). I don't know how I feel, therefore I act: Alexithymia, urgency, and alcohol problems. *Addictive Behaviors*, 38(4), 2014-2017. doi: 10.1016/j.addbeh.2012.12.014
- Sifneos, P. E. (1973). The prevalence of 'alexithymic' characteristics in psychosomatic patients. *Topics of Psychosomatic Research*, 22, 255-262. doi: 10.1159/000286529
- Spitzer, C., Siebel-Jürges, U., Barnow, S., Grabe, H. J., & Freyberger, H. J. (2005). Alexithymia and interpersonal problems. *Psychotherapy and Psychosomatics*, 74(4), 240-246. doi: 10.1159/000085148
- Stanford, M. S., Houston, R. J., & Baldridge, R. M. (2008). Comparison of impulsive and premeditated perpetrators of intimate partner violence. *Behavioral Sciences and the Law*, 26(6), 709-722. doi: 10.1002/bsl.808
- Stith, S. M., & McCollum, E. E. (2011). Conjoint treatment of couples who have experienced intimate partner violence. *Aggression and Violent Behavior*, 16(4), 312-318. doi: 10.1016/j.avb.2011.04.012
- Stith, S. M., Smith, D. B., Penn, C. E., Ward, D. B., & Tritt, D. (2004). Intimate partner physical abuse perpetration and victimization risk factors: A meta-analytic review. *Aggression and Violent Behavior*, 10(1), 65-98. doi: 10.1016/j.avb.2003.09.001
- Tager, D., Good, G. E., & Brammer, S. (2010). "Walking over 'em": An exploration of relations between emotion dysregulation, masculine norms, and intimate partner abuse in a clinical sample of men. *Psychology of Men and Masculinity*, 11(3), 233-239. doi: 10.1037/a0017636

- Taylor, G. J. (2000). Recent developments in alexithymia theory and research. *The Canadian Journal of Psychiatry, 45*(2), 134-142. doi: ECU Document Delivery
- Taylor, G. J., & Bagby, M. (2013). Psychoanalysis and empirical research: The example of alexithymia. *Journal of the American Psychoanalytic Association, 61*(1), 99-133. doi: 10.1177/0003065112474066
- Taylor, G. J., & Bagby, R. (2000). An overview of the alexithymia construct. In R. Bar-On & J. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and applications at home, school, and in the workplace* (pp. 40-67). San Francisco, CA: Jossey-Bass.
- Taylor, G. J., & Bagby, R. M. (2004). New trends in alexithymia research. *Psychotherapy and Psychosomatics, 73*(2), 68-77. doi: 10.1159/000075537
- Taylor, G. J., Parker, J. D. A., Bagby, R. M., & Acklin, M. W. (1992). Alexithymia and somatic complaints in psychiatric out-patients. *Journal of Psychosomatic Research, 36*(5), 417-424. doi: 10.1016/0022-3999(92)90002-j
- Teten, A. L., Miller, L. A., Bailey, S. D., Dunn, N. J., & Kent, T. A. (2008). Empathic deficits and alexithymia in trauma-related impulsive aggression. *Behav Sci Law, 26*(6), 823-832. doi: 10.1002/bsl.843
- Tolmunen, T., Heliste, M., Lehto, S. M., Hintikka, J., Honkalampi, K., & Kauhanen, J. (2011). Stability of alexithymia in the general population: An 11-year follow-up. *Comprehensive Psychiatry, 52*(5), 536-541. doi: 10.1016/j.comppsy.2010.09.007
- Tominaga, T., Choi, H., Nagoshi, Y., Wada, Y., & Fukui, K. (2014). Relationship between alexithymia and coping strategies in patients with somatoform disorder. *Neuropsychiatric Disease And Treatment, 10*, 55-62. doi: 10.2147/ndt.s55956
- Toneatto, T., Lecce, J., & Bagby, M. (2009). Alexithymia and pathological gambling. *Journal of Addictive Diseases, 28*(3), 193-198. doi: 10.1080/10550880903014775

- Tull, M. T., Jakupcak, M., Paulson, A., & Gratz, K. L. (2007). The role of emotional inexpressivity and experiential avoidance in the relationship between posttraumatic stress disorder symptom severity and aggressive behavior among men exposed to interpersonal violence. *Anxiety, Stress, & Coping, 20*(4), 337-351. doi: 10.1080/10615800701379249
- Tweed, R. G., & Dutton, D. G. (1998). A comparison of impulsive and instrumental subgroups of batterers. *Violence and Victims, 13*(3), 217-230. doi: <http://search.proquest.com.ezproxy.ecu.edu.au/docview/208555343>
- Ueno, M., Maeda, M., & Komaki, G. (2014). Different subgroups of high-scorers on the TAS-20 based on the big five personality traits. *Personality and Individual Differences, 68*, 71-76. doi: 10.1016/j.paid.2014.04.012
- United Nations (2005). *State of the world population 2005: Gender equity, reproductive health, and the Millenium Development Goals*. Retrieved from <http://www.unfpa.org/public/publications/pid/1343>
- van der Helm, G. H. P., Stams, G. J. J., van der Stel, J. C., van Langen, M. A. M., & van der Laan, P. H. (2012). Group climate and empathy in a sample of incarcerated boys. *International Journal of Offender Therapy and Comparative Criminology, 56*(8), 1149-1160. doi: 10.1177/0306624x11421649
- Vanheule, S., Desmet, M., Meganck, R., & Bogaerts, S. (2007). Alexithymia and interpersonal problems. *Journal of Clinical Psychology, 63*(1), 109-117. doi: 10.1002/jclp.20324
- Vorst, H. C. M., & Bermond, B. (2001). Validity and reliability of the Bermond-Vorst Alexithymia Questionnaire. *Personality and Individual Differences, 30*(3), 413-434. doi: 10.1016/s0191-8869(00)00033-7

- Wareham, J., Boots, D. P., & Chavez, J. M. (2009). Social learning theory and intimate violence among men participating in a family violence intervention program. *Journal of Crime and Justice*, 32(1), 93-124. doi: 10.1080/0735648X.2009.9721263
- Weldon, S., & Gilchrist, E. (2012). Implicit theories in intimate partner violence offenders. *Journal of Family Violence*, 27(8), 761-772. doi: 10.1007/s10896-012-9465-x
- Whitaker, M. P. (2013). Centrality of control-seeking in men's intimate partner violence perpetration. *Prevention Science*, 14(5), 513-523. doi: 10.1007/s11121-012-0332-z
- Williams, C., & Wood, R. L. (2010). Alexithymia and emotional empathy following traumatic brain injury. *Journal of Clinical and Experimental Neuropsychology*, 32(3), 359-367. doi: 10.1080/13803390902976940
- Wood, R. L., & Williams, C. (2007). Neuropsychological correlates of organic alexithymia. *Journal of the International Neuropsychological Society*, 13(3), 471-479. doi: 10.1017/s1355617707070518
- Wotschack, C., & Klann-Delius, G. (2013). Alexithymia and the conceptualization of emotions: A study of language use and semantic knowledge. *Journal of Research in Personality*, 47(5), 514-523. doi: 10.1016/j.jrp.2013.01.011
- Yelsma, P. (1996). Affective orientations of perpetrators, victims, and functional spouses. *Journal of Interpersonal Violence*, 11(2), 141-161. doi: 10.1177/088626096011002001
- Yelsma, P., Hovestadt, A.J., Anderson, W.T., & Nilsson, J.E. (2000). Family-of-origin expressiveness: Measurement, meaning, and relationship to alexithymia. *Journal of Marital and Family Therapy*, 26(3), 353-363. doi: 10.1111/j.1752-0606.2000.tb00304.x

## Appendix A: Participant Information Questionnaire

*Please write the answer or circle the relevant alternative for each question:*

**Age:** \_\_\_\_\_

**How would you best describe your ethnicity/cultural background?**

**Aboriginal/Torres Strait Islander**

**Anglo-Australian**

**African**

**Asian**

**European** (Eastern/Western)

**Other** (please specify): \_\_\_\_\_

**Level of education**

High school graduate: **Yes / No**

If no, what year did you complete? \_\_\_\_\_

Trainee/apprenticeship: **Yes / No**

TAFE qualification: **Yes / No**

Tertiary/university qualification: **Yes / No**

**Are you currently receiving Centrelink payments? Yes / No**

If yes, please advise type of payment. E.g., Newstart, Disability pension, etc.

\_\_\_\_\_

**For [REDACTED] participants only**

**How were you referred to the [REDACTED] program?**

\_\_\_\_\_

\_\_\_\_\_

**When did you commence this program, or how long have you been attending?**

\_\_\_\_\_

## Appendix B: Remote Instruction Sheet

**Participant Instructions – Postage Paid Mail-Back**

Dear Participant,

Thank you for agreeing to volunteer your time to be a part of this important research.

To successfully complete this process, please:

- Read and ensure that you understand the enclosed participant information letter.
- Read and sign the enclosed consent form. If you require any further clarification, please do not hesitate to contact the researcher.
- Complete the participant information questionnaire
- Complete the Toronto Alexithymia Scale (TAS-20)
- Complete the Moral Foundations Questionnaire (MFQ)

**The TAS-20 and MFQ both contain simple instructions on how to complete them.**

*However, if you are unsure how to complete the scales, or you require any assistance, please contact the researcher.*

- If you wish to go into the draw to win one of four \$50 Woolworths shopping vouchers, please complete the competition contact details sheet and return with the package.

Once you have completed all items in the checklist above, please enclose all documents in the pre-addressed, prepaid envelope provided, and drop it off at your closest post office or box.

*Or, if this is inconvenient to you, please contact the researcher to organise a suitable time and location for the paperwork to be collected from you.*

Once again, I sincerely thank you for your participation in this research. Your involvement is greatly valued!

Kind regards,

Elizabeth Bell and James Strickland

Chief Investigators

School of Psychology and Social Science

Edith Cowan University

Email: [ecbell@our.ecu.edu.au](mailto:ecbell@our.ecu.edu.au)

[jastrick@our.ecu.edu.au](mailto:jastrick@our.ecu.edu.au)

Phone: 0424 176 447

0424 492 950

## Appendix C: Participant Information Letter

## Exploring the Personal Characteristics of Various Groups of West Australian Men

**Contact Details:**

Researchers: James Strickland	Elizabeth Bell
Email: jastrick@our.ecu.edu.au	ecbell@our.ecu.edu.au
Supervisors: Dr Ricks Allan	Professor Alfred Allan
Email: m.allan@ecu.edu.au	a.allan@ecu.edu.au

Dear Participant,

You are invited to take part in a set of studies exploring the ways in which various groups of men describe their own emotions and feelings, as well as the beliefs and values they use to guide their moral decisions. The aim of these studies is to further previous research in this area using Australian male participants.

This research project is being undertaken as part of the course requirements at Edith Cowan University. You have been selected to participate in this study based on your age, gender, state of residence, and participation or non-participation in a current not-for-profit community program.

Involvement in this study will take approximately 30 minutes. If you choose to participate, you will be asked to fill out two survey questionnaire forms and a short information sheet, which includes questions about your age and education level. By participating, you will go into the draw to win one of four \$50 Woolworths vouchers.

To ensure your privacy, all information you provide will remain confidential, and your name will not be kept with the research data. All information will be stored privately and securely at Edith Cowan University for a period of seven years, and will only be accessed by the researchers and supervisors. The consent form containing your name will be stored separately from your questionnaire data.

All findings from this research will be presented in a final thesis, which will be printed after the research is complete. This report will be stored at the university library, and will be available to university staff and students. Please note that this report and any future reports will not include any information that could personally identify you or any other participants. If you give your permission, the results of this research may be used in future research at the university. If you have any questions about the research project, or require any further information, please contact the researchers or supervisors.

Your participation in this study is voluntary; you may choose not to participate, without any prejudice, such as your right to participate in a program, and you may withdraw from participating in this study at any time, without explaining why. If you choose to withdraw, all information you have provided will be removed from the research, if at that stage your data can be identified; this may not be possible after you have completed the questionnaires.

This project has been approved by the ECU Human Research Ethics Committee. If you have any concerns or complaints about the research project and would like to talk to someone other than the researchers, you may contact:

Research Ethics Officer  
Edith Cowan University  
270 Joondalup Drive  
JOONDALUP WA 6027  
Phone: (08) 6304 2170

If you would like to participate in this research, please read and sign the attached consent form.

I thank you for your participation in this research.

Kind regards,

Elizabeth Bell and James Strickland  
Chief Investigators  
School of Psychology and Social Science  
Edith Cowan University

## Appendix D: Informed Consent Form

## Exploring the Personal Characteristics of Various Groups of West Australian Men

**Contact Details:**

Researchers: James Strickland	Elizabeth Bell
Email: jastrick@our.ecu.edu.au	ecbell@our.ecu.edu.au
Supervisors: Dr Ricks Allan	Professor Alfred Allan
Email: m.allan@ecu.edu.au	a.allan@ecu.edu.au

I, \_\_\_\_\_, understand and agree to the following:

- I have been provided with an information letter explaining the research projects
- I have read and understood the material within the information letter
- I have been given the opportunity to ask questions about this research, and they have been answered to my satisfaction
- I am aware that if I have any further questions about the research, I can contact the researchers, supervisors, or the Research Ethics Officer
- I understand that my participation in this research will take approximately 30 minutes, and will involve:
  - Completing a short participant information form
  - Completing two questionnaire forms
- I understand that all information I provide will remain private and confidential, and that my identity will not be disclosed or recorded with my information
- I understand that I am free to withdraw from this research project at any time without penalty, and I am not required to explain why
- I agree to participate in this study

Do you give consent for any data you provide on the confidential questionnaire forms to be used in further research projects at Edith Cowan University and other universities? **YES / NO**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher's signature: \_\_\_\_\_ Date: \_\_\_\_\_