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Codependent concerns among nurses

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Codependent Concerns Among Nurses

by

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USE OF THESIS

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Abstract

Codependency is a complex dysfunctional behaviour pattern characterised by a dependence upon external reference points for ways of being. An abundance of nursing literature claims that codependency is (a) a problem among nurses, (b) related to the demands of the profession, and that (c) codependent nurses eventually suffer disillusionment and burnout. The purpose of this descriptive study was to examine the severity of codependent concerns among Western Australian registered nurses in order to direct a response to these claims.

A random sample of 1000 West Australian registered nurses were mailed surveys with an option for them to respond anonymously by mail. A total of 590 returned surveys gave a response rate of 59%. Codependent concerns among subjects were measured using the Friel Codependency Assessment Inventory (CAI), a clinically based self-report tool. In addition, a demographic survey collected information regarding years of experience in nursing and current area of nursing practice in order to examine the relationships between these variables and severity levels of codependency.

The mean severity rating for codependent concerns among subjects was mild to moderate according to Friel's CAI severity rating. One in three nurses reported moderate to severe or severe codependent concerns. Chi square, Pearson Correlation and ANOVA statistical analyses revealed no significant relationship between nursing practice variables and severity of codependent concerns. A post hoc factor analysis supported the construct validity of the CAI but did not support Friel's claim that this instrument covers specific areas of concern.

The findings of this study suggest that codependency is problematic among West Australian registered nurses, but that it is not related to years of experience in nursing or

area of nursing practice. Further research is required to (a) describe the relationship, if any, between codependency and burnout among nurses, (b) refine the CAI as a more succinct measurement instrument, and (c) test the theoretical constructs of Friel and Friel's conceptual model of codependency.

Declaration by Candidate

I certify that this thesis does not incorporate, without acknowledgement, any material previously submitted for a degree or a diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text.

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This study would not have been possible without the assistance of the Nurses' Board of Western Australia. The Board performed the random sampling from the Register and distributed the questionnaires and reminder letters to potential subjects. This participation enabled the preservation of subject anonymity and provided a large random sample which would otherwise have been inaccessible to the researcher.

I am very thankful for the expert statistical advice and teaching that Andrew Guilfoyle and Elaine Pascoe provided during the development of this thesis.

Finally I wish to acknowledge the many Western Australian registered nurses who were willing to share sensitive information about themselves in the course of participating in this study.

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Codependent Concerns Among Nurses

Chapter 1 Introduction

Background to the Study

Nurses are often described as high achievers who work hard and care deeply. From this practice orientation, many nurses appear to be meeting the needs of others at the expense of their own health and well being. An abundance of nursing literature claims that such self-defeating caretaking behaviour is widespread among nurses, and that this can be understood within the context of codependency (Adams & Bayne, 1992; Allen & Sevier, 1992; Arnold, 1990a; Barker, 1991; Bennett et al, 1992; Caffrey & Caffrey, 1994; Cauthorne-Lindstrom, 1990; Covello, 1991; Farnsworth & Thomas, 1993; Heinrich & Killeen, 1993; Herrick, 1992; John, 1991; Klebanoff, 1991; Ralph, 1993; Service, 1990; Yates & McDaniel, 1994). The term *codependency* refers to a pattern of coping where an individual depends more heavily on external events than on their own internal reality for feelings of well being (Friel & Friel, 1987). Health professionals such as Friel & Friel (1987), Mellody (1989), Weik (1989), Weinhold (1991), Whitfield (1991b), and Wilson-Schaef (1986) have identified codependency as universal among humans in varying degrees of severity, with severity levels bearing a relationship to stress related illness. The concept of codependency is complex and will be described in more detail in Chapter 2 of this thesis. The nursing literature has expressed concern regarding the problem of codependency among nurses, and has indicated that it is related to the social and political demands of the profession (Arnold, 1990b; Barker, 1991; Caffrey & Caffrey, 1994; Covello, 1991; Herrick,1992; Joel, 1994; Klebanoff,

1991; Malloy & Berkery, 1993; O'Brien-Blanford, 1995; Ryan, 1991; Snow & Willard, 1989; Yates & McDaniel, 1994). It is also claimed that nurses who sacrifice their own needs through codependent behaviour eventually suffer disillusionment and burnout (Caffrey & Caffrey, 1994; Cauthorne-Lindstrom, 1990; Chappelle & Sorrentino, 1993; Davidhizar & Shearer, 1994; Joel, 1994; Murphy, 1994; Ralph, 1993; Snow & Willard, 1989; Yates & McDaniel, 1994). In a literature review on burnout in nursing, Crotty (1987) stated that "Burn-out involves extreme physical and emotional exhaustion in which the professional loses positive feelings of sympathy and respect for the people for whom they care" (278).

The Problem

Despite the immense volume of nursing literature claiming that codependency is a problem among nurses, only five research projects were found that examined the severity of codependency among groups of nurses (Chappelle & Sorrentino, 1993; Greenman 1993; King & Miracle, 1992; Turner & Phillips, 1993; Yates & McDaniel, 1994) and none of these used sample sizes larger than 160. These studies were all conducted in the United States of America, and only two were reported in detail. Three found mild to moderate codependent concerns among nurses, one reported moderate to severe concerns in one third of subjects (Yates & McDaniel, 1994), and one (Greenman, 1993) found a trend toward higher severity in nurse groups than in non-nurse groups. No studies were found which examine codependency among Australian nurses and yet Smith (1990) observed that codependency is "Australia's most common and unrecognised dis-ease" (p. 19). This raises the question: How severe are codependent concerns among Australian nurses?

Another question that follows from the literature concerns whether or not there is a relationship between the social and political demands of the profession and codependency among nurses. If the sociopolitical demands of nursing are related to codependency, then variables such as (a) years of experience in nursing and (b) area of nursing practice could logically be expected to show a positive relationship to the severity of codependency among nurses.

The Purpose

The purpose of this study was to examine the severity of codependent concerns among Western Australian (WA) registered nurses. It was also the purpose of this study to examine the relationship between severity of codependent concerns and nursing practice variables such as years of nursing experience and area of nursing practice.

Research Questions

This study investigated the following questions:

1. How severe are codependent concerns among registered nurses in WA?

2. Is there a significant relationship between years of experience in nursing and the severity of codependent concerns?

3. Is there a significant relationship between practice in a specific nursing speciality and the severity of codependent concerns among registered nurses?

Significance of the Study

A large number of articles in the international nursing literature claim that codependency is an occupational hazard for nurses and that it is related to nursing

burnout. It is believed that burnout results in the loss of well qualified and experienced nurses from the profession. Health professionals link codependency to stress related illness which is also of concern for nurses. The ability of nurses to nurture and support the health of others will ultimately be limited if they are at risk for burnout or stress related illness themselves.

In order to properly assess the problem of codependency among nurses, scientific data are required. Only five research studies were found which describe severity levels of codependency among nurses, and these were conducted on small samples in the USA. Findings from these studies cannot be generalised to include Australian nurses. No studies were found which examined the relationship between codependent concerns and nursing practice variables. Research is required to describe the severity of codependent concerns among Australian nurses and to examine the relationships between codependency and nursing practice variables. If codependent concerns are shown to constitute a definable problem among nurses, then remedial programs would be indicated.

Chapter 2 Review of Literature

Introduction

This review will examine the literature that describes the genesis and dynamics of codependency, followed by that which discusses codependency in nursing. Anecdotal articles on codependency in nursing will be reviewed separately from those which are reports of research conducted in the area. Finally the literature on burnout, and in particular nursing burnout, will be reviewed.

The Genesis and Dynamics of Codependency

The body of knowledge contributing to the modern concept of codependency goes as far back as Freud. The use of the term, however, grew out of the work of psychologists who observed the coping responses of families of alcoholics in the 1970s and 1980s (Mellody, 1989; Whitfield, 1991b). Members of these families were observed to be extremely preoccupied with the alcoholic and focussed on his or her addictive behaviours. As the alcoholic recovered, family members lost this focus and were left with a legacy of deeply ingrained self-defeating coping behaviours. Wegscheider-Cruse (1985) described these family members as "addicted to the dysfunctional or alcoholic family system" (p.1), with a pathological need to take care of others. Hence the use of the term *codependent*. As yet, there is no widely accepted definition of codependency although there is agreement among pioneers and experts in the field that it is a painful and progressive disorder arising from growing up in a dysfunctional family where certain communication patterns prevail (Beattie, 1989; Friel & Friel, 1988; Mellody, 1989; Wegscheider-Cruse, 1985; Weinhold, 1991; Whitfield, 1991b; Wilson-Schaef, 1986).

These patterns, such as secrecy, denial of feelings and needs, and lack of clarity, are used in an attempt to control the thoughts and feelings of family members.

Internationally known medical doctor and codependency expert Charles Whitfield (1991b) cited 23 published definitions of codependency that commonly refer to it as a behavioural pattern characterised by self neglect, self-defeating behaviours, preoccupation with and dependence on externals, dysfunctional feeling and behaviour patterns, and a need to control. Experts at the First National (USA) Conference on Codependency in 1990 agreed that "Co-dependency is a pattern of painful dependency on compulsive behaviours and on approval from others in an attempt to find safety, self-worth and identity. Recovery is possible" (Chernoff 1991, p. 29).

Some self-worth and identity are apparently lost to the codependent individual during their childhood developmental years in a dysfunctional family. According to Friel & Friel (1987), Mellody (1989), Smith (1990), Weinhold (1991) and Whitfield (1993), the loss occurs as the child abandons his or her authentic self as expressed in spontaneous feelings and reactions. Abandonment appears to take place in response to parental invalidation of some of these feelings and reactions. Hence the child denies his or her reality and constructs a false self to please adult figures and ensure survival. Since the true self is lost or alienated from the codependent individual, difficulty is experienced in knowing and expressing his or her true thoughts, feelings and needs. This leads to a dependence on externals, or an "addiction to looking elsewhere" to fill the resulting emptiness within (Whitfield, 1991b p. 4). Carrying emotional pain into adulthood, the individual may feel compelled to find relief with chemicals or processes such as eating, spending, gambling, sex, or work that may become addictive. Looking elsewhere, or

repeatedly seeking fulfilment and validation from the external world underlies the essential characteristics of codependency.

Wilson-Schaef (1987) described codependency as a product of an essentially addictive societal system which mirrors the dysfunctional family. "And because we live in this system, every one of us, unless recovering by means of a system shift, exhibits many of these same characteristics" (p. 37). Based on decades of psychotherapeutic work with addicts, Wilson-Schaef (1987) concluded that the system of government, religious, industrial and professional bodies which constitutes western society encourages addiction and codependence because this system is essentially addictive in itself. Such a society operates in the same way as an addict by using dishonesty, manipulative behaviour, denial, fear, perfectionism, dependency, scarcity and blame for the purpose of controlling its members (Wilson-Schaef 1987). As a microcosm of this society the dysfunctional family attempts to control its members in the same way, and in so doing fosters in them the characteristics of codependency. These characteristics include esteeming the self inappropriately, not knowing where the self ends and others begin (boundary distortions), and a lack of balance in expressing the self (Mellody, 1989; Smith, 1990; Whitfield, 1993; Wilson-Schaef, 1986). Engaging in these ways of relating to self, others and the environment compromises personal health and disrupts interpersonal relations (Beattie, 1989; Friel & Friel, 1988; Mellody, 1989; Wegscheider-Cruse, 1985; Weinhold, 1991; Whitfield, 1991b; Wilson-Schaef, 1986).

The link between codependency and stress related physical illness has been described by Mellody (1989), Wilson-Schaef (1986), and Whitfield (1987), and has been quantitatively measured and reported by Friel and Friel (1986) who concluded that "stress-related diseases and codependency go hand-in-hand" (p.16).

Codependency in Nursing

Anecdotal literature on codependency among nurses. The claim from within the nursing profession is that codependency is a problem for many nurses, and that it is an occupational hazard fostered by the following forces:

1. The historical development, socialisation and education of nurses have produced a degree of internalised oppression (Adams & Bayne, 1992; Barker, 1991; Caffrey & Caffrey, 1994; Klebanoff, 1991; Malloy & Berkery, 1993; Yates & McDaniel, 1994). Some of this oppression appears to have arisen from the tendency of the religious, military and work systems which have produced nurses, to elicit compliance by shaming which produces "a feeling that something is wrong, that one is flawed or defective" (Adams & Bayne, 1992, p. 72). Along with shaming, Caffrey and Caffrey (1994) have added promotion of guilt and lack of support as factors produced by the systems which have socialised and educated nurses. Barker (1991), O'Brien-Blanford (1995) and Yates and McDaniel (1994) have described the heritage of traditional nurse training as producing dedicated, self-sacrificing individuals who experience difficulty defining themselves. As a primarily female occupation, nursing appears to have absorbed the social more of women finding their worth in unselfish giving (Caffrey & Caffrey, 1994; Klebanoff, 1991; Malloy & Berkery, 1993).

2. The financial constraints of the health care system have created pressure for nurses to take on heavy workloads and manage with insufficient resources (Joel, 1994; Sherman, Cardea, Gaskill & Tynan, 1989). Such a system can easily exploit the traditional tendency of nurses to neglect their own needs or to feel guilty when they give their own needs priority (Joel, 1994). Codependent nursing roles such as martyr, persecutor (one who blames) and rescuer are thought to be encouraged by the lack of

human and material health care resources which result from financial constraints (Sherman et al, 1989).

3. The hierarchical decision-making arrangement of health care institutions has minimised nursing autonomy and supported oppressive management styles (Arnold, 1990b; Caffrey & Caffrey, 1994; Cauthorne-Lindstrom, 1990; Klebanoff, 1991). The fixed nature of a hospital hierarchy is believed to automatically set up reward systems for nurses who (a) yield to the systemic chain of command rather than exercising autonomy (Arnold, 1990b; O'Brien-Blanford, 1995), and (b) demonstrate approved behaviours and adherence to rigid rules (Caffrey & Caffrey, 1994; Cauthorne-Lindstrom, 1990). Klebanoff (1991) described codependency as a way of coping with the internalised oppression which results from working within a patriarchal health care system.

4. The need of many nurses to be cared for or nurtured may have unconsciously drawn them into the nursing profession (Barker, 1991; Caffrey & Caffrey, 1994; Covello, 1991; Hall & Wray, 1989; Ryan, 1991). Caffrey and Caffrey (1994) described this need as being "dependent on clients and others in the bureaucratic/patriarchal "family" to feed one's self-esteem, to make one feel worthwhile, competent and happy" (p. 15) but added that nurses repeatedly give more than they receive. Covello (1991) claimed that the need to be cared for is morbid in codependent nurses. Love, attention and security were listed by Hall and Wray (1989) as unmet needs of the codependent nurse who compensates this lack by engaging in a capable and mature front. Ryan (1991) claimed that codependent nurses achieve, care, and rescue in order to feel valued and accepted.

5. Nursing has provided a professional caregiving role for individuals who have been conditioned as caretakers (Herrick, 1992; Klebanoff, 1991; Shelly, 1991). Nursing can allow codependent individuals to feel indispensable by allowing them to live out their

conditioning as the heroic caretaker in the dysfunctional family (Herrick, 1992). Shelly (1991) described the attraction of nursing for codependent individuals by observing that the professional caregiving role provides a natural progression for those who have learned a lifetime of caring for others.

Codependency reportedly manifests in nursing as perfectionism, communication difficulty, esteeming self by performance, caretaking or caring for others at the expense of personal needs, and denial of problems and difficulties (Caffrey & Caffrey, 1994; Hall & Wray, 1989; Herrick, 1992; Misiaszek, 1993; O'Brien-Blanford, 1995; Summers, 1992).

Some nurses have expressed concern regarding the published view that codependency is a problem among their colleagues, as they fear it may be damaging to the professional image of nursing (Mallison, 1990; Mullaney, 1993; Walter, 1994). "The codependency label, said Patricia Benner at the American Nurses' Association Convention in June [1990] is 'the latest attempt to pathologise the caring professions.' " (Mallison, 1990, p. 7). According to Jones (1991) the term codependency implies blame for associated compulsive behaviour. Walter (1994) drew attention to the lack of agreement on a theory to explain the condition, but subsequently discounted this argument by criticising "the rigid theoretical framework of codependency" (p. 71). In a later article, Walter (1995) described codependency as a popular fad that is unsupported by objective data. Cleary (1994) claimed that the literature does not support the codependency concept because little scientific research has been conducted "concerning the codependency label" (p. 7). There appears to be confusion here regarding the difference between a concept and a label. Whitfield (1991a) responded to criticism of codependency as lacking in extensive scientific testing by observing that "While the

scientific method is helpful in testing the physical and other lower realms, description, interpretation and direct and shared experience are equally valid research methods for testing the validity of higher realms in which codependence is examined" (p. 46). Recent scientific studies are beginning to support the theoretical propositions of codependency as an identifiable disorder with measurable constructs such as low self-esteem (Clarke & Stoffel, 1992; Rijavec, 1993), external locus of control (Rijavec, 1993), and dependent relationship styles (Minnitti, 1992; Rosenberg, 1993).

It is acknowledged that the term codependency is problematic and that any sweeping generalisations regarding the nursing profession would serve no healing function. It is also acknowledged that the labelling of any individual as codependent is potentially damaging. As Koldjeski (1992) observed, the motivation for apparently selfless behaviours among nurses can arise from altruistic motivation as well as so-called codependent thinking. The theoretical notion of codependency ought not to be dismissed however, as it has shown itself to be useful in giving new and effective direction to mental health care (Friel & Friel, 1988-89). Furthermore, health professionals have developed the codependency treatment model in the course of identifying and healing the pain of their own codependent behaviours (Bradshaw, 1988; Mellody, 1989; Smith, 1990; Snow & Willard, 1989; Wilson-Schaef, 1986) and in the course of treating their clients. For professional workers in the dependence and addictions fields, the concept has been a catalyst for the development of new paradigms for healing (Weik, 1989; Whitfield, 1991b; Wilson-Schaef, 1992). If nurses are to seriously consider the notion of codependency as a professional problem, then scientific investigation of this issue is indicated.

Research on codependency in nursing. Five studies which examined the severity of codependent concerns among nurses were found. Only one of these, a published research report by Chappelle and Sorrentino (1993) was reported in detail. Two descriptive studies describing the effects of codependency on practicing nurses were also found. These will be discussed first.

Williams, Bissell and Sullivan (1991) used an exploratory survey to describe the effects of codependence on the personal and professional lives of a convenience sample of 133 nurses (and 67 physicians). Codependence was identified by the researchers as being in a close relationship with a chemically dependent person, but the term codependence was not mentioned to the subjects. With reference to nurse subjects, 92% reported difficulty concentrating, 71% reported absenteeism, and 89% reported low self-esteem and self-confidence. The limitations of this study which relate to the sample, the method of sample selection, and the use of an unvalidated instrument are well reported by the authors.

A more recent qualitative study described the effects of codependency on the practice of six self-identified codependent nurses using a qualitative case study method (Wise & Ferreiro, 1995). The subjects had a mean age of 41 with between 9 and 20 years of nursing experience. Commonly found were "boundary problems, external focus, and caretaking, with caretaking being the dominant descriptor" (p. 36). Other findings included denial, negative effects on patient care, emotional distancing, hiding mistakes, control, difficulty with delegating or asking for and accepting help, and difficulty with being assertive. The authors recommend that institutions examine policies and attitudes that promote codependency in nursing staff.

The other studies discussed in this review all used the Friel (1985) Codependency Assessment Inventory (CAI) to examine the severity of codependent concerns among nurses. The CAI is a clinically based self-report research tool designed by Dr John Friel, a clinical psychologist, to measure codependent concerns in adults.

Turner and Phillips (1993) examined the presence of codependency in a stratified random sample (n = 100) of nurses from two university hospitals. The CAI scores showed 60% of subjects to be at least mildly codependent while 8% were severely codependent. Although the sample was random, it was drawn from only two institutions of a similar nature. The researchers reported finding an inverse relationship between years of nursing experience and codependency. Details of this research (submitted for publication) were sparse as only the abstract was made available by the authors through Dr Friel.

A larger sample (n = 160) was used by Chappelle and Sorrentino (1993) who also assessed the severity of codependency among nurses using the CAI. Subjects were limited in this study by being drawn from just one hospital. The survey was distributed to 383 nurses, to which 176 responded. It was not reported whether the 383 nurses constituted the whole of the hospital nursing staff so the nature of the sample was unclear. The majority were reported to have few codependent concerns. Mild to moderate codependent concerns were present in 27.5% with 12.1% showing moderate to severe concerns. Although 16 of the returned questionnaires were rejected for the analysis, more than half of the remaining respondents failed to answer items concerning family substance abuse on the demographic data form.

Codependency in student nurse, nurse, and non-nurse groups was examined by Greenman (1993) using the CAI. No significant difference was found between groups in

terms of the presence of codependency, but the nurse group showed a trend toward higher severity. Greenman also found strong correlations between codependency and chronic illness. More specific details of this study, apart from those which were reported in Dissertation Abstracts International, were unable to be found.

Another study (Yates & McDaniel, 1994) which is also reported very briefly was found within an anecdotal article on Codependency in nursing. The authors surveyed "54 home health nurses and 61 hospital nurses" (p. 33) using the CAI. No further details of the sample or methods were given. The results were reported as indicating that approximately one third of nurses showed moderate to severe codependent concerns.

In a descriptive study King and Miracle (1992) used the CAI to determine the prevalence of codependency in four groups of nurses. The subjects were drawn from the critical care areas of two hospitals, a group of undergraduate nursing students, and nurses who attended a continuing education (CE) program on codependency. The total sample was reported as a mixture of randomly selected critical care nurses (n = 85) and convenience samples of undergraduate (n = 29) and CE (n = 28) nurses. This peculiar mixed sample showed a mean CAI score of 29.28 which indicated a severity rating of mild to moderate codependent concerns. Mean CAI severity ratings on a group basis revealed Hospital A and the CE participant groups reporting moderate to severe concerns, Hospital B group reporting few concerns, and the undergraduate student group reporting mild to moderate concerns. It was not reported whether the CE subjects completed the CAI before or after the education session on codependency. However, a one way analysis of variance showed no significant difference between the groups' mean scores. The authors caution against generalisation of the findings of this study due to the small sample size (n = 142).

Scientific evidence in support of codependency as a problem among nurses is minimal and the studies found demonstrate considerable limitations. Nevertheless, the research that has been reported has forged a beginning response to the widely published claim that codependency is a problem among nurses.

The conjecture that codependent nurses are at risk for burnout is also widely published (Caffrey & Caffrey, 1994; Cauthorne-Lindstrom, 1990; Chappelle & Sorrentino, 1993; Davidhizar & Shearer, 1994; Joel, 1994; Murphy, 1994; Ralph, 1993; Snow & Willard, 1989; Yates & McDaniel, 1994) but scientifically unsupported at this time. Research that has been conducted on nursing burnout however, does implicate certain characteristics of codependency. This implication will be discussed later in this review.

Burnout

What is burnout? The literature on the phenomenon of burnout goes back approximately 20 years. In 1974 Freudenberger, a psychoanalyst, coined the term 'burn-out' to describe the disillusionment, fatigue and meaninglessness reported by some of his clients (Crotty, 1987). Since then, major research has begun to draw a comprehensive picture of this phenomenon as an identifiable condition which affects the physical, mental and psychological functioning of the sufferer.

Veninga and Spradley (1981) drew their definition of burnout from anthropological field work involving interviews and open-ended questionnaires from over 100 occupations including nursing. They concluded that burnout is "a debilitating psychological condition brought about by unrelieved work stress which results in 1. depleted energy reserves 2. lowered resistance to illness 3. increased dissatisfaction and

pessimism 4. increased absenteeism and inefficiency at work" (pp. 6,7). Later research supported these findings and added further dimensions to the condition.

Pines and Aronsen (1988) drew their definition from 10 years of formal research involving qualitative and quantitative methods on more than 5000 participants in many occupations. "Burnout is formally defined and subjectively experienced as a state of physical, emotional and mental exhaustion caused by long term involvement in situations that are emotionally demanding" (p. 9). Like Veninga and Spradley (1981) they also found that individuals suffering burnout had lowered resistance to illness, significant fatigue, frustration and feelings of hopelessness, and work inefficiency and absenteeism. Scott (1989) observed similar dynamics among clients in his psychiatric practice who suffered unrelieved work stress.

A more recent work by Powell (1993) highlighted the relevance of personal construct psychology (how humans construct viewpoints) in determining susceptibility to burnout. Using case studies and interviews with individuals from many occupations, Powell's (1993) work drew attention to "individual characteristics that seem to contribute to burnout" (p. 22). Included among these are perfectionism, over-dependent and addictive traits, low self-esteem, idealism and vigorous conscientiousness. Powell did note that these findings were based on small samples (size unreported) from which generalisations could not be made. However, they did reflect the observed characteristics of some burnt out individuals.

All of these burnout researchers identified that individuals with high ideals and expectations who perform emotionally taxing work tend to suffer burnout. This description is consistent with many practicing nurses.

Burnout in nursing. As early as 1981 Veninga and Spradley reported nurses to be describing their profession as a "burnout occupation" (p. 237). These researchers, Veninga a behavioural scientist and Spradley a cultural anthropologist, also observed the professional stressors of bureaucracy, lack of recognition, and the socialisation of nurses into high ideals of service as paving the way for reality shock and burnout. Pines and Aronsen (1988), both psychologists, also reported nursing as an occupation at risk for burnout. In the first sentences of their book, Pines and Aronsen (1988) reported that from the many occupations they included in their research, the worst cases of burnout they observed had occurred among nurses. Powell (1993), also a psychologist, cited examples from the stories of nurses, teachers and social workers to exemplify certain aspects of burnout. Whilst not really pinpointing any particular occupation, more than one third of Powell's (1993) burnout references were from the nursing literature.

Studies showing that nurses appear to be more susceptible to burnout than other workers have been cited by Crotty (1987), Cullen (1995), Armstrong-Stassen et al (1994), and Wells-Federman (1996). Why are nurses more susceptible to burnout? Recent research findings positively correlate certain nursing variables to nursing burnout. These variables include rotating shifts and night shifts (Lachman, 1996), night shifts and heavy workload (Duquette et al, 1995; Armstrong-Stassen et al, 1994), long working hours (Bennett & Kelaher, 1994; Crotty, 1987), client-centred or emotionally stressful work (Cohen, 1995; Cullen, 1995; Pines & Aronsen, 1988), high service ideals and expectations (Crotty, 1987; O'Brien & Page, 1994; Pines & Aronsen, 1988; Powell, 1993; Scott, 1989; Veninga & Spradley, 1981), bureaucratic work environments (Cullen, 1995; O'Brien & Page, 1994; Pines & Aronsen, 1988), and specific issues related to a

predominantly female workforce (Pines & Aronsen, 1988; Armstrong-Stassen et al, 1994).

Several factors have been reported to diminish the likelihood of burnout among nurses:

1. Duquette et al (1995) cited seven scientific studies which show a particular set of personality traits, for which the term *hardiness* is used, to provide effective resistance to nursing burnout. Hardiness in this context is described as openness to change, commitment to the task at hand, and feeling in control of events (Duquette et al, 1995). A study by Duquette et al (1995) found that in a random sample of 1545 nurses working in geriatric care, lack of hardiness was the predominant predictor of burnout.

2. Awareness of (a) the dynamics of burnout, (b) workplace stressors, (c) individual physical responses to stress, and (d) how perception of events can create stress can effectively contribute to the minimisation of burnout (Pines & Aronsen, 1988; Veninga & Spradley, 1981).

3. An ability to (a) lower expectations, (b) prioritise workload, (b) use stress safety valves, (c) apply the relaxation response, and (d) seek collegial support appears to provide effective resistance to burnout (Pines & Aronsen, 1988; Veninga & Spradley, 1981). Work support was shown to correlate negatively with nursing burnout in sixteen studies cited by Duquette et al (1995).

4. Increasing age (Bennett & Kelaher, 1994; Armstrong-Stassen et al, 1994) and years of experience in nursing (Cameron et al, 1994; Armstrong-Stassen et al, 1994) have also been shown to correlate negatively with nursing burnout.

Burnout and codependency. After examining the research on burnout, there appear to be links which suggest a relationship between burnout and certain areas of codependent concern. These links are identified below:

1. Robinson (1992) observed in his psychotherapeutic practice that many clients who were at risk for burnout demonstrated perfectionism, caretaking and the need to use controlling behaviour. These characteristics were found to be present in codependent nurses in Wise and Ferreiro's (1995) qualitative study, and are repeatedly described by codependency experts as symptoms of codependency (Beattie, 1989; Friel & Friel, 1988; Mellody, 1989; Smith, 1990; Wilson-Shaef, 1986; Whitfield, 1991b).

2. The factors which have been shown to diminish the likelihood of burnout among nurses appear to be inconsistent with, and therefore implicate, certain codependent characteristics. For example; (a) an individual who is open to change and feels in control of events is unlikely to use the manipulative controlling behaviour that is characteristic of codependency, (b) an ability to lower expectations seems inconsistent with perfectionism, and (c) to seek collegial support would require acknowledgment rather than denial of problems and difficulties.

3. Certain nursing variables which have been shown to correlate positively with nursing burnout, such as high service ideals and expectations (Crotty, 1987; O'Brien & Page, 1994; Pines & Aronsen, 1988; Powell, 1993; Scott, 1989; Veninga & Spradley, 1981), bureaucratic work environments (Cullen, 1995; O'Brien & Page, 1994; Pines & Aronsen, 1988), and specific issues related to a predominantly female workforce (Pines & Aronsen, 1988; Armstrong-Stassen et al, 1994) are also believed to foster codependency (Caffrey & Caffrey, 1994; Klebanoff, 1991; Wilson-Schaef, 1987).

4. The characteristics of low self esteem and over-dependency identified in Powell's (1993) burnout case-study subjects match the scientifically supported codependency constructs of low self-esteem (Clarke & Stoffel, 1992; Rijavec, 1994) and dependent relationship styles (Rosenberg, 1993).

5. The stress-related physical illnesses shown to be associated with burnout (Pines & Aronsen, 1988; Veninga and Spradley, 1981) have also been shown to be associated with codependency (Friel & Friel, 1986).

These links certainly raise questions about the possible relationship between codependency and burnout among nurses. The connection between the two areas appears to be a logical and feasible one, but the notion that codependent individuals are prone to burnout requires scientific testing.

Summary

Codependency is apparently universal in varying degrees of severity and has its genesis in the childhood need to survive in an imperfect world. Inappropriate self-esteem, self expression and personal boundary delineation characterise codependency, giving rise to caretaking behaviour and compromised physical health. An abundance of anecdotal professional literature claims that codependency is an occupational hazard for nurses, and that it is related to nursing burnout.

Caretaking among nurses can be understood within the concept of codependency but caution needs to be exercised to avoid the use of this term as a personal or professional descriptor. Reported research in the area of codependency among nurses so far is minimal and has limited application. Only five research projects were found that examined the severity of codependency among groups of nurses and none of these used

sample sizes larger than 160. Three found mild to moderate codependent concerns among nurses, another found moderate to severe concerns in one third of subjects, and one found a trend toward higher severity in nurse groups than in non-nurse groups.

Burnout has been reported as multidimensional exhaustion resulting from unrelieved emotionally taxing work demands. Burnout results in poor physical health, work inefficiency, and absenteeism. The possibility of some link between codependency and burnout seems likely, but scientific data are needed to describe the relationship (if any) between codependent concerns and burnout in nursing. In order to respond to the claim that codependent nurses eventually suffer burnout, the severity of codependent concerns among nurses must first be established. The purpose of this study was to describe the severity of codependent concerns among RNs in Western Australia.

Chapter 3 Frame of Reference

Conceptual Framework

The conceptual framework for this study was the pattern recognition theorem from Margaret Newman's (1994) model of Health as Expanding Consciousness. Within this paradigm, health is conceptualised as increasing insight into human pattern, and pattern is the unique energy flow that identifies an individual. Integral to Newman's model is Martha Rogers' (1986) science of unitary human beings. Rogers postulated that (a) the human being is an energy field which is identified by pattern, and which cannot be separated into parts - hence the term *unitary*, and (b) the environment is an energy field which is continuous with the human energy field. Newman (1994) described pattern as having the qualities of "movement, diversity and rhythm" (p. 72), and stated that "The pattern being signalled by disease (as well as non-disease) can be seen and understood in terms of a pattern of energy" (Newman, 1994, p. 17). The individual is identified by his or her pattern which may manifest as a disease state or a non-disease state.

In this study codependency was seen as a pattern of human energy, and nursing variables as patterns of environmental energy. Nurses' reported perceptions of the nature and severity of their own codependent concerns were viewed as an early stage of pattern recognition. The relationship of certain nursing variables to the severity of codependent concerns was considered as further information about the movement, diversity and rhythm of that pattern. The point of recognising pattern is that it provides information about a person affording that person insight. Such insight enables subsequent reorganisation of pattern for greater harmony. The task in nursing is described as recognition and acceptance of human pattern as a meaningful reflection of

the whole person and as a pathway to expanded consciousness or health (Newman, 1994). Figure 1. displays the conceptual framework for this study.

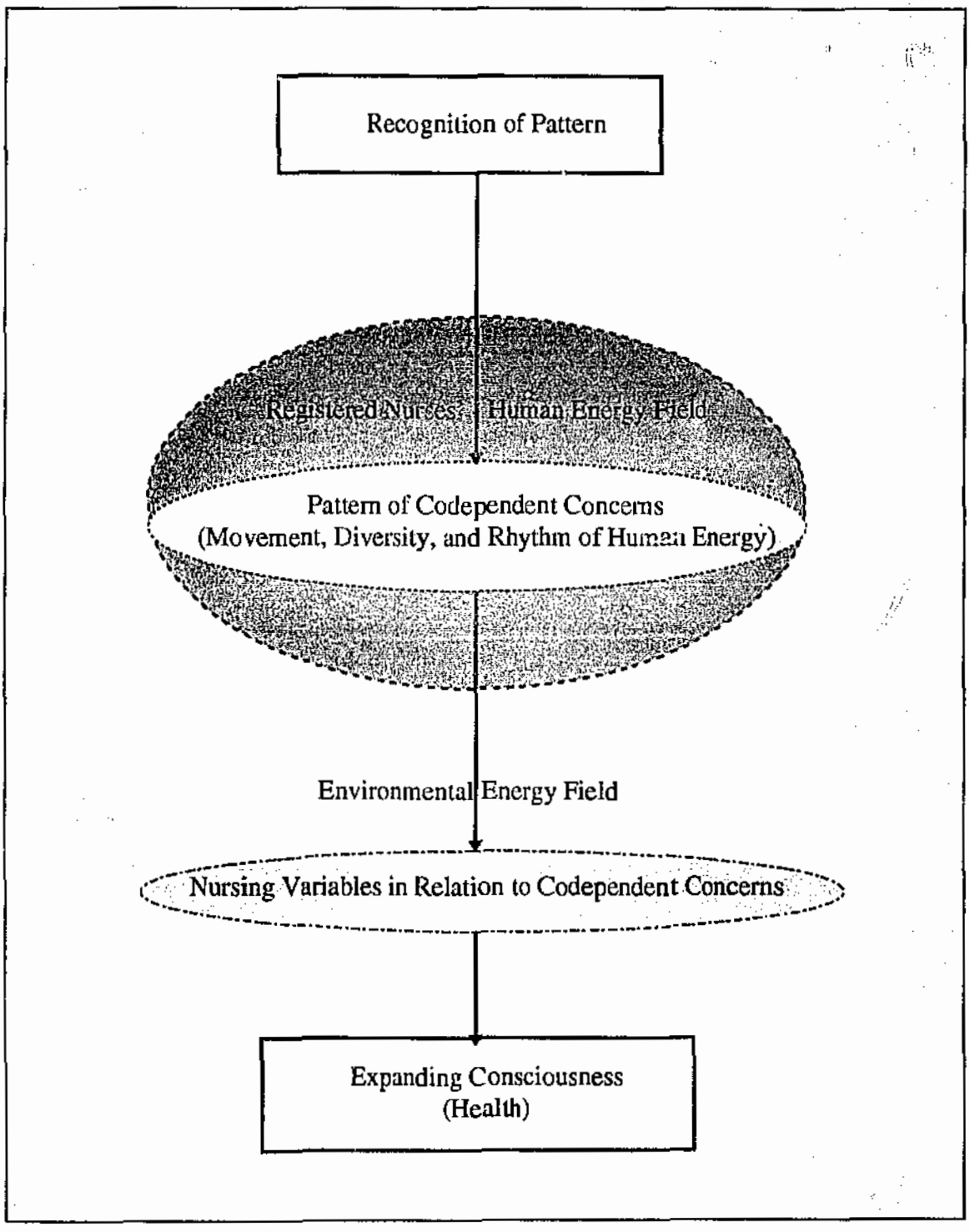

Figure 1. Conceptual framework

Newman's (1994) model of health as expanding consciousness was chosen to underpin this study because it embraces a world view that is unifying rather than separating, and also draws deeply from the intuitive knowing of the human spirit, as well as from science, to explain the meaning of health and nursing. Newman's model is based on the idea that in every fragment of the whole universe is found an image of the entire pattern of the universe. This paradigm has arisen out of the new work in science and physics, and is described as *holographic* (Newman, 1994). Based on this holographic view of the universe, pattern recognition occurs by "getting in touch with our own pattern and through it in touch with the pattern of the person or persons with whom we are interacting" (Newman, 1994, p. 107). In other words, through recognising his or her own pattern, the nurse is better able to recognise the pattern of others.

This study sought to gain insight into a discordant pattern of coping which was thought to be used by nurses. Newman (1994) explained that insight regarding pattern "represents a turning point in evolving consciousness with concomitant gains in freedom of action" (p. 43). Newman's holographic framework implies that the essence of holistic nursing is practitioner self-awareness. Pattern recognition - or self-awareness - was activated in this study by asking nurses to self-report the pattern of their own codependent concerns. Certain nursing variables were examined in relation to the pattern of codependent concerns in order to yield further information about that pattern. Research questions rather than hypotheses were formulated in view of the lack of research in this area.

Definition of Research Variables

The dependent variable measured in this project was severity of codependent concerns. The independent variables measured were (a) years of nursing experience, and (b) area of professional nursing practice.

Definition of Terms

Concepts included in this study were operationally defined as follows:

1. *Codependency* is a pattern of coping where an individual relies more heavily on external events than on their internal reality for feelings of well-being (Friel & Friel 1987)

2. *Codependent concerns* refers to patterns of codependent living and problem solving as described by the Friel (1985) Codependency Assessment Inventory (CAI).

3. *Caretaking* is the process of meeting the needs of others at the expense of an individual's personal health and well-being.

4. *Registered nurses* are nurses registered in Division 1 of the Nurses' Board of Western Australia Register. Division 1 includes general, midwifery and mental health nurses who each hold a current practicing certificate.

Assumptions

This study was based on the following assumptions:

1. All humans have codependent concerns.

2. Human insight into patterns of coping is desirable.

3. Codependent patterns of living are undesirable.

4. Nurses want to avoid disillusionment and burnout.

5. Nurses will adhere to the self-report questionnaire guidelines provided.

Chapter 4 Methods & Procedures

Study Design

A descriptive study design was used to investigate the severity levels of codependent concerns among nurses, and to examine relationships between certain variables. The variables measured were (a) degree of severity of codependent concerns, (b) years of nursing experience, and (c) area of professional practice. Measurements were analysed to describe and interpret the relationships between these variables. The level of significance for this study was set at .05.

Sample Selection

Subjects for this study were randomly selected from Division 1 of the Nurses' Board of Western Australia (NBWA) Register. Division 1 includes general, midwifery and mental health nurses who each hold a current practicing certificate. Nurses who have not practiced for more than five years cannot be registered with the Board.

An adequate sample size was determined for this study by the process of power analysis. Power in this context refers to the likelihood that a study will reject a false null hypothesis or accept true significant results (Munro et al, 1986). Power analysis was performed by using the master Statistical Power Table developed by Kraemer and Thiemann as reported and reproduced in Burns & Grove (1993). According to this table, with a .05 level of significance, a power level of .95, and an effect size of .15, this study required 570 subjects in order to give a 95% probability that the study would accept true significant results or a correct null hypothesis. There were too few previous studies from which to predict effect size but it was estimated to be small and set at .15.

Of the 1000 registered nurses who were invited to participate in this study, 590 responded giving a response rate of 59%. Six of these responses were invalid giving a total of 584 subjects. This was an adequate sample size with respect to the power analysis. The sample (n = 584) represented 3.09% of the total population (N = 18,914) under study.

Measurement Instruments

Friel Codependency Assessment Inventory (CAI). The Friel (1985) CAI was used to measure codependent concerns in this study. The CAI is a clinically based self-report research tool designed to measure codependent concerns in adults (Appendix A). The tool was developed by Dr. John Friel (1985) a clinical psychologist. Subjects who respond to the tool are required to assign a true or false response to the 60 items on the tool. Responses yield numerical scores that indicate whether the respondent has few (under 20), mild to moderate (21 to 30), moderate to severe (31 to 45) or severe (over 45) codependent concerns. Written permission was given by Dr. Friel to use the CAI for this study and to reproduce it in this thesis (Appendix B).

Friel's initial testing of the CAI for reliability using KR-20 (Richardson Standard Formula) was between .83 and .85 in homogeneous samples (Chappelle & Sorrentino, 1993). Internal consistency for the tool was tested by West-Willette (1990) who used factor analysis to examine the factor structure of the CAI using two groups of women (n = 596). The groups differed in having either a positive or a negative history of family alcoholism. Dimensionality of the CAI was found to be very similar within the two groups, showing only subtle differences in factor structure. Test-retest reliability on the instrument was found to be strong.

Turner & Phillips (1993) found a high correlation (r = .85) between the CAI and the Spann Fischer codependency instrument in their study of nurse subjects. The CAI was found to have a Cronbach alpha of .92 and the Spann Fischer .84 which strengthens validity for the CAI and again indicates strong reliability for this instrument.

Further CAI validation is offered by Neary & Susarla (1991) who demonstrated the appearance of concurrent validity between high CAI scores and (a) the psychiatric identification of these subjects as codependents needing intense treatment, (b) Friel's severity classification of these subjects using the CAI, and (c) the presence of "4 out of 5 of Cermak's criteria for Codependent Personality Disorder" (p. 3) in 88% of subjects.

Neary & Susarla (1991) also examined various studies that used the CAI to measure levels of codependency among either inpatient codependents, outpatient codependents or normal subjects. Validity of the CAI was reported as being "supported by its apparent ability to differentiate levels of codependency on a continuum according to what one would expect [in these groups]" (p. 3).

Scher (1991) found significant relationships between the CAI and codependent constructs as identified by other instrumental measures concluding that the CAI was found to be reliable and valid as a measure of codependent concerns.

Demographic survey. A demographic data tool (Appendix C) collected information regarding subject gender and nursing practice variables.

Data Collection Procedure

Approval by the NBWA was gained to access a random sample of 1000 potential subjects from Division 1 of the Nurses' Board Register. The researcher prepared 1000 blank prepaid envelopes, each of which contained a CAI, a demographic survey, a

covering letter (Appendix D), and a prepaid addressed return envelope. Staff at the NBWA addressed and mailed the envelopes to a computerised random sample drawn by them from Division 1 of the Register. This procedure effectively prevented the researcher from knowing who had been invited to participate in the study as subjects were not required to identify themselves on their completed questionnaires.

Nurses who chose to respond mailed their completed questionnaires to the researcher's home address in the prepaid envelope supplied. Within two weeks, 495 registered nurses had returned the completed questionnaires. All potential subjects were mailed a reminder letter (Appendix E) several weeks after the initial mail out. A further 95 responses followed within 4 weeks of the reminder letter giving a response rate of 59%, being 590 returned questionnaires. Six of these were excluded from the data base due to a failure of the respondents to complete all items.

Setting. Subjects responded to the questionnaires in their chosen environment.

Ethical Considerations

Consent. Potential subjects were invited to participate in the study after being informed of requirements for participation as detailed in the letter to potential subjects (Appendix D). This letter described the study and the requirements for subject participation, and assured nurses that they were not required to identify themselves or their employing facility at any stage of the procedure. Information regarding the procedure used for subject selection and implementation of the mail out by the Nurses' Board was also described in the letter. Subjects were informed that consent was implied by their responding to the questionnaires.

Data management procedure. Anonymity of subjects was maintained by the addressing and mail out of questionnaires and letters being carried out by the NBWA. This procedure eliminated the need for the researcher to have any knowledge of the names and addresses of potential subjects. Neither the NBWA nor the researcher has any knowledge of who responded to the letter to potential subjects. Completed questionnaires will be stored for 5 years in a locked metal filing cabinet to which only the researcher has access. After 5 years, the questionnaires will be destroyed by shredding in the presence of the researcher.

Risks to subjects. There were no known risks to subjects participating in this study.

Chapter 5 Data Analysis and Results

The purpose of this study was to describe the severity of codependent concerns among registered nurses in WA. This study also examined the relationships between certain nursing practice variables and the severity of codependent concerns. Data were analysed using the IBM statistical software package SPSS for Windows (1993).

Demographic Data

Mean age and years of professional experience of the sample of nurses used in this study are presented in Table 1.

Table 1

Age and Years of Nursing Experience of a Random Sample of 584 Western Australian Registered Nurses

	Female n = 553			Male n = 31		
Characteristics	M	SD	Range	M	SD	Range
Age in years	43.28	8.66	28-71	46.48	9.43	33-65
Nursing experience in years	21.18	8.52	3-50	21.74	9.16	3-38

The mean age for subjects in this study (44.5 years) closely matches the mean age of the actual population studied as reflected in the statistics held by the Western Australian Health Department (Appendix F). These statistics show that the mean age for all nurses registered with the NBWA is 40 years. Approximately 1% of these are Enrolled Nurses and therefore not part of the population under study.

Study subjects reported that 81.3% were hospital trained, 16.8% had both hospital and university preparation, and 1.9% were prepared at university only. WA Health Department statistics show that 83% of nurses registered with the NBWA are hospital trained (Appendix F) indicating again that this sample was representative of the population under study.

Relative frequencies for most recent area of professional practice of subjects are shown in table 2. The highest percentage of subjects reported working in the general clinical area, whilst the lowest percentage of subjects reported working in palliative care.

Table 2

Most Recent Area of Professional Practice for a Random Sample of 584 Western Australian Registered Nurses

	Female n = 553	Male n = 31	
Current Area of Practice	Female %	Male %	Total %
General clinical	18.2	.7	18.9
Gerontology	12.0	.5	12.5
Midwifery	10.4	.2	10.6
Community	9.4	.3	9.7
Operating suite	7.7	.2	7.9
Management	5.8	.7	6.5
Other work roles	4.5	nil	4.5
Bush nursing	4.5	nil	4.5
Education/research	4.3	nil	4.3
Doctor's surgery	4.3	nil	4.3
Mental health	1.7	2.4	4.1
Paediatrics	3.9	nil	3.9
Accident/emergency	3.3	.2	3.5
Intensive/coronary	3.3	.2	3.5
Palliative care	1.5	nil	1.5
Totals	*94.7*	*5.3*	*100.0*

The category of *Other work roles* as tabled above under current area of practice was created by the researcher to include nurses employed in areas that included only one or two study subjects. These areas were (a) family planning, (b) flying doctor service, (c) drug and alcohol addiction, (d) boarding school infirmary, (e) aboriginal health, (f) non-profit health organisations, (g) hyperbarics, (h) agency, (i) occupational health, (j) certain government departments, and (k) sales representatives for hospital and medical supplies. The category of *Bush nursing* also seen in Table 2 refers to rural nursing posts and small country hospitals where subjects reported being engaged in a variety of practice areas.

The SPSS frequency output for male and female ages, years of nursing experience, professional preparation and areas of professional practice are shown in Appendix G.

Item 4 on the demographic survey (Appendix C) asked subjects to indicate whether or not they were currently practicing by circling a *yes* or *no* response to this item. All study subjects had a current practicing certificate which the NBWA issued to nurses who had practiced within the last five years. In effect this meant that some subjects may not have been currently practicing. Of the 584 subjects, 56 circled the *no* response. Several of these subjects noted on the questionnaire that because they worked in nursing management they were not practicing nursing. Another subject in the *no* category explained that retirement had occurred several weeks ago, whilst others explained that they were currently on maternity, sickness, or long service leave. It was decided not to examine the study variables separately for subjects who reported themselves as not currently practicing since there appeared to be some misinterpretation of the related item. A clearer formulation of this item would have been to ask "Are you currently employed as a nurse?"

Research Questions

Research Question 1. How severe are codependent concerns among registered nurses in WA? This question was investigated by analysing the continuous and categorical CAI data.

Using the continuous CAI scores, the sample demonstrated a mean of 26.54 with a standard deviation of 11.8. The 99% confidence interval was 25.2 to 27.8. This means that the researcher could be 99% confident that if the CAI scores for the whole population of registered nurses in WA were measured, their mean would fall between 25.2 and 27.8. A score of between 20 and 31 is translated by Friel (1985) as a severity rating of mild to moderate codependent concerns. The mean severity rating for registered nurses in WA is mild to moderate according to the measures of central tendency performed on the continuous CAI scores obtained in this study. SPSS frequency output for CAI scores is shown in Appendix G.

The imposition of Friel's (1985) four severity ratings on to the continuous CAI scores comprised the categorical data used to further examine the severity of codependent concerns among subjects. The resulting grouped frequency distribution is shown in Table 3.

Table 3

Grouped Frequency Distribution of Codependency Assessment Inventory (CAI) Scores for 584 Western Australian Registered Nurses

Grouped CAI Scores	Friel's Severity Rating for Codependent Concerns According to Grouped Scores	f
under 20	few codependent concerns	183
21 - 30	mild to moderate codependent concerns	186
31 - 45	moderate to severe codependent concerns	174
above 45	severe codependent concerns	41
Total		*584*

Of the 584 subjects, a total of 215 reported either moderate to severe or severe codependent concerns. The severity of codependent concerns among registered nurses as shown by this study falls roughly into the classification of less than one third reporting few concerns, slightly less than one third reporting mild to moderate concerns, and a little over one third reporting moderate to severe or severe codependent concerns (Figure 2).

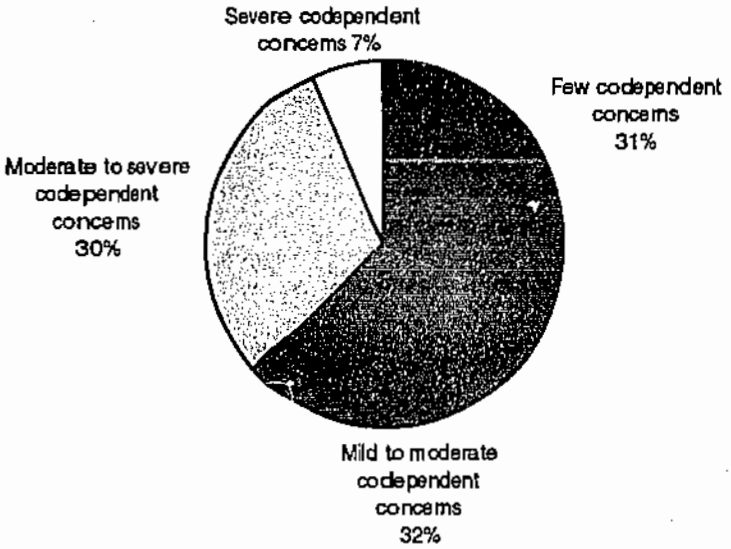

Figure 2.

Percentages by severity of codependent concerns reported by a random sample of 584 Western Australian Registered Nurses

Research Question 2. Is there a significant relationship between years of experience in nursing and the severity of codependent concerns? This relationship was tested first of all using a 2 X 4 chi square test of independence. The chi square test uses categorical data to determine whether or not the two variables under study are independent of each other (Burns & Grove, 1993). The continuous data for the first variable, years of practice, were formed into two categories. Subjects with 10 years of experience and under were nominated as *less experienced* while those with 11 years and over were nominated as *well experienced*. The mean years of experience of the total sample was 21 indicating that a 10 year differentiation point would give a functional number of subjects to work with in each category. The subject scores for the second variable, severity of codependent concerns, were categorised according to Friel's four severity categories as shown in Table 3. The statistical question being asked here of the chi square test was "Are there more nurses with a particular level of severity in either category of experience than would be expected if the variables were independent of each other?" The chi square statistic was calculated at X^2 (3, 584) = .987, p = .804, showing there to be no significant relationship between years of experience in nursing and the severity of codependent concerns. Another way of interpreting this p value of .804 is to say that 8 times out of 10, the differences between expected and observed frequencies occurred by chance. The cell frequencies and SPSS output for this chi square computation are shown in Appendix G.

Validity of the chi square test is dependent upon certain conditions being met. These conditions as described by Visintainer in Munro et al (1986) are that (a) the data be frequency data, (b) the categories of data have a theoretical basis, (c) the variables

measured be independent of one another, and (d) the sample size be sufficiently large enough. For this study, both variables were expressed in theoretical categories derived from frequency data. The variables were independent of one another in that subjects were randomly selected and each subject was counted only once. The adequacy of the sample size however, as determined by cell numbers related to degrees of freedom, was debatable. Visintainer (Munro et al, 1986) explains that according to Hays (1973) and Spence et al (1976), in tables with numbers of cells greater than four (there were eight in this test), where the degrees of freedom are greater than one (df = three in this test), the chi square is valid if no more than 20% of the expected frequencies are less than five. In this test, one cell had a frequency of less than five which constituted 12.5% of expected frequencies. Hence validity for this Chi square test appeared to be reasonably adequate. It was decided however, to use the more sensitive continuous data from both variables to perform a correlation test.

The Pearson Product-Moment Correlation Coefficient is a test of linear association between two variables (Burns & Grove, 1993). The test result expresses this relationship as an r statistic or value. The correlation coefficient r may range from +1.00 to -1.00. The closer the r value is to either extreme of the range, the stronger the relationship is between the two variables. The correlation coefficient r calculated for years of experience and severity of codependent concerns in this study was .08 which indicates very little if any correlation between the two variables. The SPSS computation of the Pearson is shown in Appendix G. A two tailed test of significance (p = .05) for the Pearson calculation was used because there was no directional hypothesis being tested.

It was concluded that there was no significant relationship between years of experience in nursing and the severity of codependent concerns among registered nurses in WA.

Research Question 3. Is there a significant relationship between practice in a specific nursing speciality and the severity of codependent concerns among registered nurses in WA? The relationship between these variables was initially examined by observing the mean CAI scores of the subjects from each work area as shown in Table 4.

Table 4

Codependency Assessment Inventory (CAI) Scores of Registered Nurses Grouped by Most Recent Area of Nursing Practice

Area of Nursing Practice	M	SD	n
Clinical	27.96	11.45	110
Gerontology	25.66	11.84	73
Midwifery	26.95	11.60	62
Community	27.40	13.66	57
Operating Suite	28.43	11.08	46
Management	23.79	11.36	38
Bush Nursing	28.08	9.14	26
Mixed Work Roles	21.58	9.68	26
Education/Research	24.48	14.66	25
Doctor's Surgery	30.24	10.50	25
Mental Health	24.83	12.79	24
Paediatrics	26.30	11.41	23
Accident/Emergency	28.85	10.10	20
Intensive/Coronary Care	24.05	10.89	20
Palliative Care	21.00	14.05	9

Some variations in the means were evident here, but in order to determine whether any of these group variations differed significantly from one another further analysis was required. A one-way analysis of variance (ANOVA) tests for significant differences between two or more group means by comparing the variance within those groups to the variance between them (Burns & Grove, 1993). Combining these two variances gives a total variance in the data under examination.

Visintainer and Munro in Munro et al (1986) explained that the data required for a one way ANOVA include a nominal independent variable with two or more levels, and a continuous dependent variable. In this analysis the independent variable, area of professional practice, was nominal data with 15 levels. The dependent variable was severity of codependent concerns expressed as continuous data with four intervals. Other assumptions of the ANOVA are that the sample is randomly selected, the groups are independent of each other, and the groups have equal variances. For this study the subjects were randomly selected and the work groups were independent of each other. The group variance was determined by dividing the smallest group variance into the largest group variance to give an F statistic. The group variance of F = 2.11 was deemed to be homogeneous by comparing it with the 5% point on *The 5% and 1% Points for the Distribution of F* table reproduced in Munro et al (1986). The tabled value was 2.48 at df 14 showing that the assumption of equal group variance was met.

Table 5 shows the ANOVA summary that was calculated using the IBM statistical software package SPSS.

Table 5

Summary of ANOVA for Mean Codependency Assessment Inventory (CAI) Scores by Area of Professional Nursing Practice

Source of Variance	df	SS	MS	F	p
Between Group	14	2513.75	179.55	1.31	.19
Within Group	569	77959.18	137.01		
Total	*583*	*80472.92*			

The ANOVA summary shows two sources of variance. The first is the variance due to the area of professional nursing practice (between group), and the second is the variance due to individuals within the groups. The probability reached by the F value of 1.31 for main effects gives a p value of .19 showing there to be no significant differences between the groups' mean CAI scores when area of practice was used as the independent variable. This result shows there to be no significant relationship between practice in a specific nursing speciality and the severity of codependent concerns among registered nurses in this sample.

Limitations

Generalisations made from the findings of this study are limited by (a) the use of a self-report tool which collected subjective responses, (b) self-report on codependency which incorporates denial as part of its dynamic, hence the risk of responses masked by denial, (c) lack of information regarding the length of time that subjects had been practicing in their nursing speciality, which may have affected the severity of their

codependent concerns, and (d) lack of information regarding whether some subjects had left the profession and as such were not currntly being influenced by variables in the nursing environment.

Summary

The subjects in this study showed a mean age of 44 years with 83.1% reporting to be hospital trained. These parameters are consistent with those reflected in the HDWA statistics on the total population under study indicating that the sample was representative of the total population.

According to this study, the mean rating for severity of codependent concerns among registered nurses in WA was mild to moderate, with at least one in three nurses reporting moderate to severe or severe codependent concerns. No significant relationships were found between specific nursing practice variables and the severity of codependent concerns in this sample.

Chapter 6 Post Hoc Analysis

Introduction

One in three nurses in this study reported having moderate to severe or severe codependent concerns. In view of this finding, a post hoc analysis of raw CAI data was performed to identify any particular areas of concern among these nurses.

Friel (1985) explained that the sixty CAI items cover 12 areas of codependent concern, but information on the relationship between the CAI items and the 12 areas could not be located. These 12 areas are "self-care ... self-criticism ... secrets ...'stuckness'... boundary issues ... family of origin ... feelings identification ... intimacy... physical health ... over-responsibility/burnout ... autonomy ... identity" (Friel, 985, p. 21). A literature search was undertaken to locate any data reduction analyses which may already have been performed on CAI data. No studies were found. Information regarding completed CAI factor analyses was also sought from Friel (J. Friel personal communication, April 5, 1996) who said that a study had been done but that he was unable to locate it at this time.

The Pattern of CAI Responses

Responses to each item on the CAI required either a *true* or *false* designation by each subject. A *true* response to even-numbered items indicated codependent concern, whereas codependent concern was indicated for odd-numbered items by a *false* response. The relative frequencies for codependent responses to each CAI item were determined and are listed according to strength in Table 6.

Table 6

Frequency of CAI Responses Indicating Specific Codependent Concerns Among a Random Sample of 584 Registered Nurses in Western Australia

CAI Item	Relative f (%) of codependent responses
I do my share of work, and often do quite a bit more.	91.3
I tend to think of others more than I do of myself.	75.7
When a close friend or relative asks for my help more than I'd like, I usually say "yes" anyway.	74.1
I wish that I could accomplish a lot more than I do now.	72.8
I've been feeling tired lately.	70.9
When I was growing up, my family did not like to talk openly about problems.	69.9
My family taught me not to express feelings and affection openly when I was growing up.	66.3
People admire me because I am so understanding of others, even when they do something that annoys me.	64.7
When someone hurts my feelings or does something that I don't like I have difficulty telling them about it.	64.6
I have a problem telling people when I am angry with them.	60.6
I hold back my feelings much of the time because I don't want to hurt other people or have them think less of me.	59.4
There's so much to do and not enough time; sometimes I'd like to leave it all behind me.	58.2
Sometimes I feel like I just waste a lot of time and don't get anywhere.	57.9
I am very uncomfortable letting others into my life and revealing "the real me" to them.	57.4
Sometimes I don't know how I really feel.	56.8
I do not have enough help with everything that I must do each day.	55.3
I don't trust myself in new situations as much as I'd like.	53.6
I wish I had more time away from my work.	53.4
I am unhappy about the way my family communicated when I was growing up.	52.1
When I am in a relationship that becomes too confusing and complicated, I have trouble getting out.	50.5
I sometimes feel embarrassed by behaviours of those close to me.	50.2
I do not like to face new problems and am not good at finding solutions to them.	50.0
I find it difficult to ask for what I want.	46.7
I am dissatisfied with at least one of my close relationships.	46.6
I am unhappy about the way my family coped with problems when I was growing up.	45.9
It is usually best not to tell someone if they bother you it only causes fights and gets everyone upset.	45.7
I am concerned about my health a lot.	44.7
I do not make enough time to do things just for myself each week.	44.5
I would be embarrassed if people knew certain things about me.	43.2
I often look happy when I am sad or angry.	42.6
I do too much for other people and later wonder why I did so.	42.0
Even if I had the time and money I would feel uncomfortable taking a vacation by myself.	41.3
I am not very satisfied with my intimate love life.	40.9
I am not satisfied with my career.	39.6
I do not make major decisions quite easily.	39.2
I have so many things going on at once that I'm really not doing justice to any of them.	38.7
When someone I love is bothering me, I have a problem telling them so.	38.5
I often feel like no one really knows me.	38.4
I am not as spontaneous as I'd like to be.	37.8
I sometimes feel pretty confused about who I am and where I want to go with my life.	37.7
I let people take advantage of me more than I'd like.	36.8

CAI Item	Relative f (%) of codependent responses
I wish that I had more people to do things with.	36.6
I am not satisfied with the way that I take care of my own needs.	36.3
I don't feel calm and peaceful most of the time.	34.8
I don't feel like I'm in a rut very often.	32.9
I spend lots of time criticising myself after an interaction with someone.	32.0
I apologize too much to others for what I do or say.	31.5
I am not very good at knowing when to speak up and ... go along with others' wishes.	31.0
It is hard for me to talk to someone in authority (boss, teachers etc.)	30.8
I do not take good enough care of myself.	30.7
I do not usually handle my problems calmly and directly.	29.1
I am not satisfied with the number and kind of relationships I have in my life.	28.4
I have regrets about what I have done with my life.	26.5
I do not feel good about my childhood.	26.2
I feel that everything would fall apart without my efforts and attention.	24.1
More often than not, my life has not gone the way that I wanted it to.	22.6
Being alone is a problem for me.	15.8
The important people in my life don't know "the real me" and I am not okay with them knowing.	14.2
I am not comfortable with my own sexuality.	14.0
I am not satisfied with my friendships.	13.7

Note. Some items have been reversed to express the codependent response

More than 90% of subjects reported taking on more than their share of work. At least 70% reported (a) putting the needs of others before their own needs, (b) self imposed pressure to achieve more, and (c) feeling tired. At the other end of the scale, less than 15% reported dissatisfaction with their sexuality and with close friendships.

In this study the CAI had so far produced nominal data on 60 variables by 584 subjects. In view of the lack of any statistical analysis identifying a conceptual structure or grouping of items within the CAI to date, it was decided to conduct an exploratory factor analysis examining like item correlations and the possible existence of any factor grouping of items. It was deemed important to conduct such an analysis on these data for several reasons:

1. The author of the instrument (Friel, 1985) suggested that the inventory items can be used to assist counselling. It was important therefore to identify areas of codependence expressed in this instrument for the purpose of counselling, and also to validate areas of codependence generally for the purpose of counselling.

2. No analysis of correlations between CAI items to identify underlying divisions had been performed. The CAI had been used in many studies but none reported analysis of their data to reflect statistical grouping of items.

3. It was considered important to begin to identify whether codependence was a general indicator that permeated many areas of an individual's life, or whether it could be represented in one or two or more independent areas of concern.

4. The CAI comprises 60 items which are time consuming to respond to and analyse. Factor analysis could serve to reduce the number of redundant items in the instrument by identifying one or two major divisions. SPSS calculated a Cronbach's alpha reliability coefficient of .91 on the CAI data collected for this study which indicated that many items could be measuring the same thing.

Factor Analysis

An exploratory principal components factor analysis applying a varimax rotation was performed to determine whether items fall under identifiable divisions of codependency. Factor analysis is a statistical grouping technique which sorts large sets of variables into single concepts in order to simplify understanding of the subject under study (Burns & Grove, 1993). Other functions of factor analysis are instrument validation and theory development. An exploratory factor analysis was performed on the

CAI data in this study to identify any potential divisions of codependence. No research had yet published findings on the structure of items within this scale.

Factor analysis assumes that the data form a symmetrical correlation matrix, and that there be a corresponding ratio of at least five subjects for each variable (Dixon in Munro et al, 1986). The data in this study had a symmetrical matrix of correlations, and a ratio of 9.7 subjects per variable. Since factor analysis is an extension of correlational techniques, the type of data required is the same as for correlation calculations. The data from this study were already shown to have met that requirement. Any level of data can be used for correlational techniques (Munro in Munro et al, 1986) although factor analysis using nominal data, such as the *true* or *false* responses required on the CAI would probably yield a less sensitive result than if ordinal or interval data were used.

Principal components analysis using SPSS first reports the correlation matrix showing correlations of each item with each other item. It then extracts a set of factors from this matrix. The factors are formed by statistically grouped variables. Correlations of between -1.00 and +1.00 express the relationship of each variable to the factor and this correlation is called the factor loading. Squaring these loadings for each factor produces *eigenvalues* which are used to determine the minimum acceptable variance explained by the factor, and therefore the number of factors to include in the analysis (Burns & Grove, 1993). A Scree plot uses graphed eigenvalues to express the difference scores between factors, and therefore the amount of variance explained. Figure 3. Shows the Scree plot for these data.

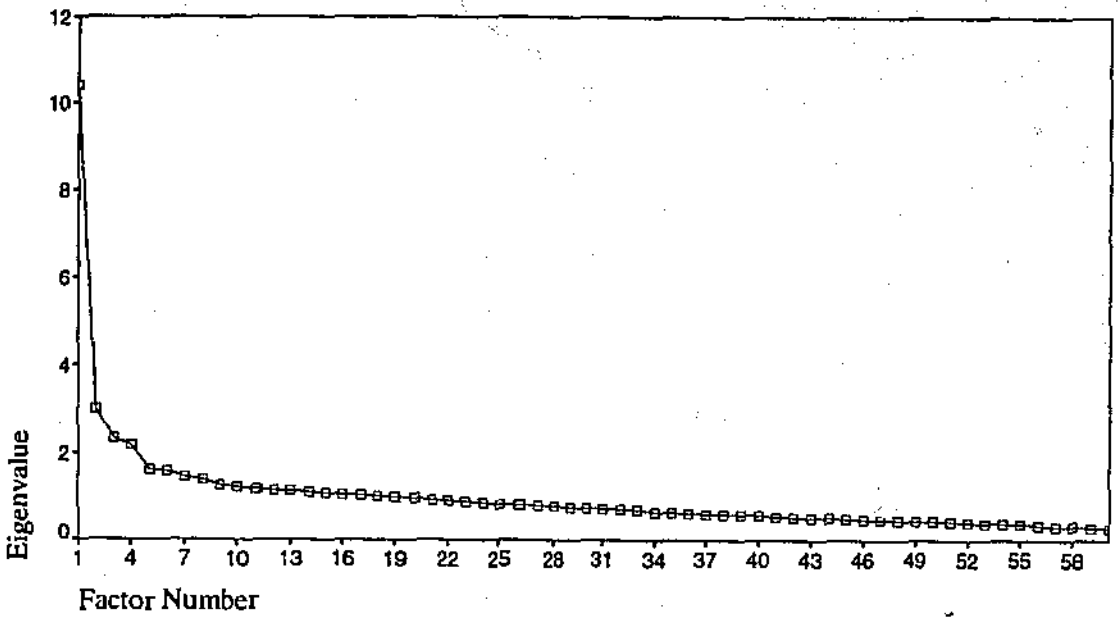

Figure 3. Factor Scree Plot

A sudden plunge in value between factors shows increased variance explained by the factor (Burns & Grove, 1993). In the Scree plot above, the difference score between the first two factors was quite large, and that between the first four factors was larger than that between subsequent factors. This seemed to indicate that there was one overall factor but that four factors could be identified with eigenvalues >2. It must be noted however, that the first factor accounted for only 17.3% of the total item variance and the next three in total accounted for 12.5%. Altogether only 29.8% of total item variance was accounted for by the four factors.

The next step in factor analysis is to determine rotated factor loadings, or the loadings of best fit, in order to produce factors that are distinct from one another. In this analysis, SPSS performed a varimax rotation to extract 4 factors. The factor

loadings across three factors were <.65 indicating a fairly weak relationship of variables to factor. The fourth factor had loadings of between .80 and .55 showing a slightly stronger variable to factor relationship. Since this was an exploratory analysis, it was decided to name the four factors even though the correlations were weak.

Of the 60 CAI items with primary factor loadings >.3, 18 were loaded across Factor One, 19 across Factor Two, 13 across Factor Three, and 5 across Factor Four. Five items did not have a factor loading >.3 with any of the four factors. Factor loadings >.3 for four factors are shown in Table 7.

Table 7.

Grouping of Items Across Factors According to Strength of Loading

Item Stems		Loading
Factor 1		
49. I have many regrets about what I have done with my life.		.58
25. I feel like I'm in a rut very often.		.57
26. I am not satisfied with my friendships.		.57
51. More often than not, my life has not gone the way that I wanted it to.		.55
13. I am not satisfied with the number and kind of relationships I have in my life.		.54
33. I don't feel calm and peaceful most of the time.		.52
32. I often feel like no one really knows me.		.50
55. The important people in my life don't know the real me and I am not OK with them knowing		.48
20. I sometimes feel pretty confused about who I am and where I want to go with my life.		.48
36. I am dissatisfied with at least one of my close relationships.		.47
21. I am not satisfied with the way that I take care of my own needs.		.45
9. I am not satisfied with my intimate love life.		.47
23. I don't usually handle my problems calmly and directly.		.43
22. I am not satisfied with my career.		.43
39. I am not very good at knowing when to speak up and when to go along with others' wishes.		.42
60. I wish that I had more people to do things with.		.40
53. I am not comfortable with my own sexuality.		.37
34. I find it difficult to ask for what I want.		.33
37. I don't make major decisions quite easily.	(secondary to factor 1)	.34
16. I wish that I could accomplish a lot more than I do now.		.33
30. I do not feel good about my childhood.	(secondary to factor 4)	.31
40. I wish I had more time away from my work.	(secondary to factor 3)	.30

Item Stems	Loading
Factor 2	
47. I have a problem telling people when I am angry with them.	.65
24. I hold back my feelings much of the time because I don't want to hurt other people or have them think less of me.	.63
27. When someone hurts my feelings or does something that I don't like, I have difficulty telling them about it.	.62
38. I don't trust myself in new situations as much as I'd like.	.55
34. I find it difficult to ask for what I want.	.53
18. It is hard for me to talk to someone in authority (boss, teachers etc.)	.48
35. I let people take advantage of me more than I'd like.	.46
2. I spend lots of time criticising myself after an interaction with someone.	.44
28. When a close friend or relative asks for my help more than I'd like I usually say yes anyway.	.43
46. I apologize too much to others for what I do or say.	.43
29. I don't like to face new problems and I am not good at finding solutions to them.	.42
37. I don't make major decisions easily.	.42
54. I sometimes feel embarrassed by behaviours of those close to me.	.37
43. When someone I love is bothering me, I have a problem telling them so.	.39
45. I am uncomfortable letting others into my life and revealing "the real me" to them.	.38
4. Sometimes I feel like I just waste a lot of time and don't get anywhere.	.37
19. When I am in a relationship that becomes too confusing and complicated I have trouble getting out.	.37
41. I am not as spontaneous as I'd like to be.	.33
8. Sometimes I don't know how I really feel.	.32
16. I wish that I could accomplish a lot more than I do now. (Secondary to factor 1)	.31
Factor 3	
50. I tend to think of others more than I do of myself.	.51
48. There's so much to do and not enough time. Sometimes I'd like to leave it all behind me.	.48
58. I do too much for other people and later wonder why I did so.	.48
6. It is usually best not to tell someone if they bother you it only causes fights and gets everyone upset.	.47
15. I don't have enough help with everything that I must do each day.	.46
44. I have so many things going on at once that I'm really not doing justice to any one of them.	.46
10. I've been feeling tired lately.	.44
1. I don't make enough time to do things just for myself each week.	.44
5. I don't take good enough care of myself.	.43
21. I am not satisfied with the way that I take care of my own needs. (Secondary to factor 1)	.41
52. People admire me because I am so understanding of others, even when they annoy me	.40
40. I wish I had more time away from my work.	.38
56. I do my share of work, and often do quite a bit more.	.35
12. I often look happy when I am sad or angry.	.33
Factor 4	
7. I am not happy about the way my family communicated when I was growing up.	.80
17. My family did not teach me to express feelings and affection openly when I was growing up.	.70
11. When I was growing up, my family did not like to talk openly about problems.	.74
59. I am not happy about the way my family coped with problems when I was growing up.	.72
30. I do not feel good about my childhood.	.55

Note. Odd numbered items have been reversed to express the codependent response.

Five of the items had factor loadings across more than one factor indicating that these items correlated primarily to one factor, with a weaker correlation to another factor. Only primary loaded items were used to interpret the meaning of each factor.

The communality coefficient h^2 reveals the amount of variance accounted for by each CAI item across the 4 factors extracted by the analysis. None of the items had a h^2 <.45 nor >.80 showing there to be a fairly regular dispersion of factors across each item and therefore not much variance. SPSS output for the rotated factor matrix and the final statistics for the summary information about the rotated factors is contained in Appendix G.

Naming the Factors. The next step of this procedure requires the researcher to draw theoretical interpretations from the factored items in order to name the factors (Munro et al, 1986, p. 275). Only items with factor loadings >.40 were considered for interpretation of factors. Item characteristics clustered under factor 1 appeared to describe three themes. They were (a) dissatisfaction with relationships, (b) regrets and dissatisfaction with life directions, and (c) difficulty defining the self. Table 8 shows the relationships of the factored items to the identified themes.

Table 8

Themes Derived from the Factored Items of Factor 1.

Items relating to *Dissatisfaction with Relationships*
9. I am not satisfied with my intimate love life.
13. I am not satisfied with the number and kind of relationships I have in my life.
26. I am not satisfied with my friendships.
36. I am dissatisfied with at least one of my close relationships.
60. I wish that I had more people to do things with.

Items relating to *Regrets and dissatisfaction with life directions*

49. I have many regrets about what I have done with my life.
25. I feel like I'm in a rut very often.
51. More often than not, my life has not gone the way that I wanted it to.
21. I am not satisfied with the way that I take care of my own needs.
23. I don't usually handle my problems calmly and directly.
22. I am not satisfied with my career.

Items relating to *Difficulty defining the self*

20. I sometimes feel pretty confused about who I am and where I want to go with my life.
33. I don't feel calm and peaceful most of the time.
32. I often feel like no one really knows me.
55. The important people in my life don't know "the real me" and I am not OK with them knowing
39. I am not very good at knowing when to speak up and when to go along with others' wishes.

Factor One was identified and named by the researcher as *existential impoverishment.* The Macquarie dictionary defines *existential* as "pertaining to existence" (Delbridge et al, 1991, p.609), and *impoverish* as "to exhaust the strength or richness of " (Delbridge et al, 1991, p. 885). The items which produced this factor described a perception that the central components of existence were insufficient or inadequate. This factor accounted for 17.3% of the total item variance.

Factor Two derived from items which appeared to relate to difficulty asserting the self, difficulty managing change, and self-criticism. The item relationships to these themes are shown in Table 9.

Table 9

Themes Derived from the Factored Items of Factor 2

Items relating to *Difficulty Asserting the Self*
47. I have a problem telling people when I am angry with them.
24. I hold back my feelings much of the time because I don't want to hurt other people or have them think less of me.
27. When someone hurts my feelings or does something that I don't like, I have difficulty telling them about it.
18. It is hard for me to talk to someone in authority (boss, teachers etc.)
28. When a close friend or relative asks for my help more than I'd like I usually say "yes" anyway.
34. I find it difficult to ask for what I want.
35. I let people take advantage of me more than I'd like.
Items relating to *Difficulty Managing Change*
38. I don't trust myself in new situations as much as I'd like.
29. I don't like to face new problems and I am not good at finding solutions to them.
37. I don't make major decisions easily.
Items relating to *Self-Criticism*
2. I spend lots of time criticising myself after an interaction with someone.
46. I apologize too much to others for what I do or say.

This Factor was identified as *self deprecation* which is defined as "understating one's worth" (Delbridge et al, 1991, p. 1591). These items were essentially about undervaluing or dishonouring the self. Self-reported difficulty managing change suggested a lack of confidence in the self. This factor accounted for 5% of the item variance.

Factor Three items were indicators of being other-focussed, overcommitted, and negligent in the area of self-care. The item relationships to these themes are shown in Table 10.

Table 10

Themes Derived from Factored Items of Factor 3

Items relating to *Other-focussed*
50. I tend to think of others more than I do of myself.
52. People admire me because I am so understanding of others, even when they do something that annoys me.
58. I do too much for other people and later wonder why I did so.
6. It is usually best not to tell someone if they bother you it only causes fights and gets everyone upset.
Items relating to *Overcommitted*
15. I don't have enough help with everything that I must do each day.
48. There's so much to do and not enough time. Sometimes I'd like to leave it all behind me.
44. I have so many things going on at once that I'm really not doing justice to any one of them.
Items relating to *Negligent Self-Care*
10. I've been feeling tired lately.
1. I don't make enough time to do things just for myself each week.
5. I don't take good enough care of myself.

This factor appeared to be similar or related to the undervaluing of self demonstrated by factor 2, but differed in having a strong 'other' or 'outer' focus. This item was named by the researcher as *outer-responsive.* It is reasonable to assume that overcommitment and negligent self-care are logical consequences of being driven by things outside of the self. This factor accounted for 3.9% of the item variance.

The Fourth factor, accounting for 3.6% of the item variance, was clearly related to unhealthy communication in family of origin and was identified as *family dysfunction.* The four factors collectively accounted for a total of 29.8% of the total item variance.

The final matrix usually performed in factor analysis is the factor score matrix. This procedure assigns correlations for each subject on each factor, achieving in effect a meaningful data reduction for the subjects under study (Dixon in Munro et al, 1986).

Since the factor loadings in this analysis were weak, and the collective variance of the four factors accounted for only 29% of the total variance, this procedure was not performed as it would not have offered any valid conclusions.

Areas of Codependent Concern.

Although the four factors were weak, it was decided to examine Friel's (1985) 12 areas of codependent concern with reference to these factors as this was exploratory research. Each of the 12 areas appeared to link comfortably to one of the factors. For example, existential impoverishment related to identity, intimacy, and stuckness, while undervaluing of self related to self-criticism, feelings identification, boundaries, secrets, and autonomy. Self-abuse derived from overresponsibility and lack of self-care, with physical health relating to fatigue. Family function was related to family of origin. Figure 4 illustrates these proposed interrelationships of Friel's 12 areas of codependent concern with the four factors.

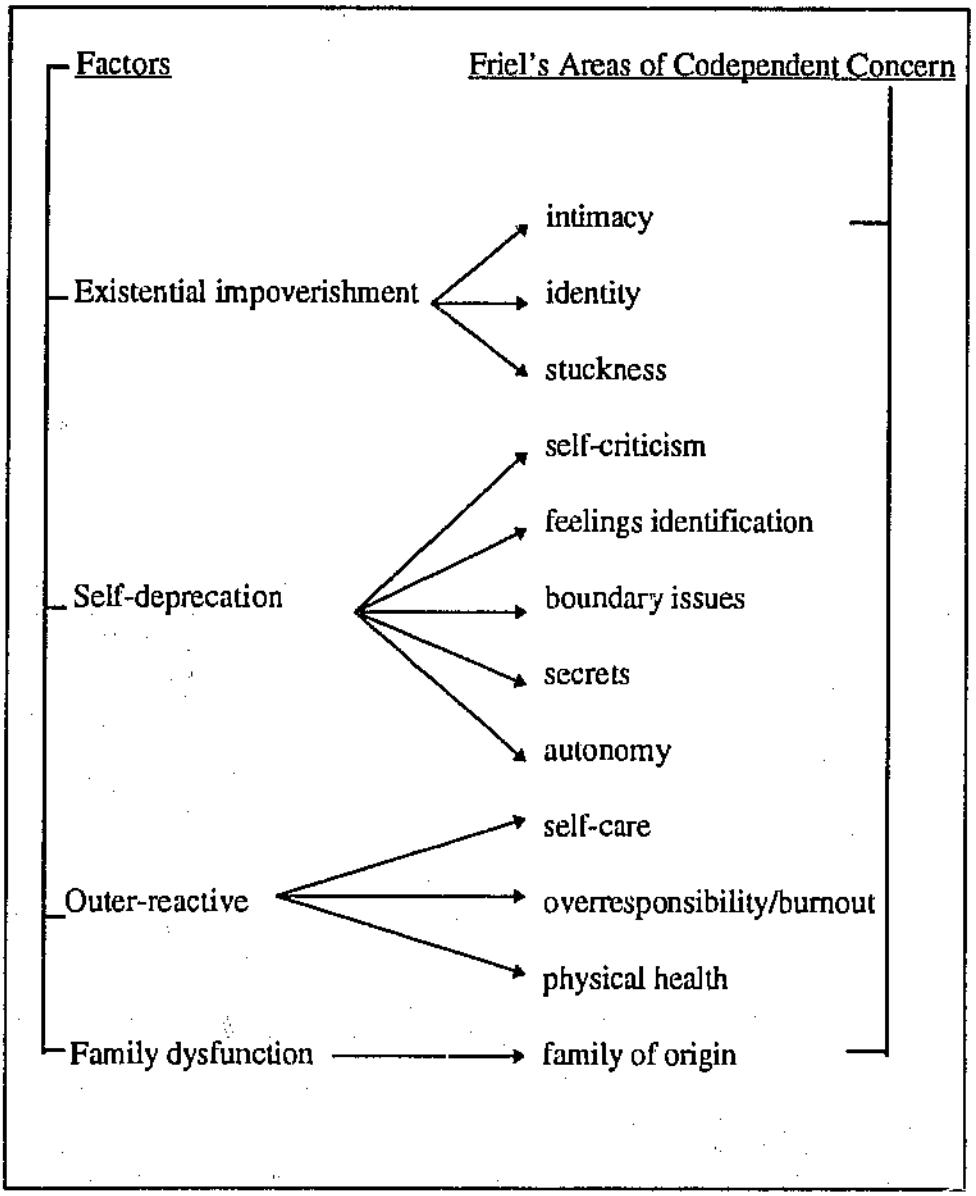

Figure 4. The Proposed Relationships Between Friel's Areas of Codependent Concern and the Four Factors Extracted from the Factor Analysis

Although the relationships suggested in Figure 4 sit comfortably in the context of codependency, the weak correlations fail to clearly separate out the areas or the factors. It is interesting to note however, that these factors do suggest some association with four of the constructs of Friel and Friel's (1987) conceptual model of codependency. This

model described codependency as a "dysfunctional pattern of living which emerges from our family of origin ... resulting in an over-reaction to things outside of us and an under-reaction to things inside of us" (Friel & Friel, 1987, p. 10). The dysfunctional pattern of living could well be associated with *existential impoverishment,* while the family of origin seems to be clearly related to *dysfunctional family.* The under-reaction to things inside of the self and the over-reaction to things outside of the self appear to be the same as *self-deprecation* and *outer-reactive.* These interpretations however, must be considered as hypothetical since the four factors accounted for only a small amount of the total item variance.

Conclusions

The post hoc exploratory factor analysis performed on the data from this study showed there to be one overall factor, but this factor accounted for only 17.3% of the total variance. Rotated factor loadings yielded four factors but with weakly correlated items. These factors were examined and named but accounted for only 29% of the total variance so cannot be considered significant. They could be considered as general areas for codependency counselling however, and as such would require a scale to be developed that measures them in a realistic and valid way.

The results of this analysis did not statistically support Friel's (1985) claim that the instrument covers 12 nominated areas of codependent concern. The analysis did appear to offer some support for the construct validity of Friel's CAI as a measure of codependency because it demonstrated the correlation of items within the instrument.

It was noted however, that this close correlation of CAI items also raised questions about the need for such a lengthy instrument to measure the severity of codependent concerns.

The correlation of items within the instrument suggests that codependence is a general condition that permeates many areas of a person's life rather than it being comprised of separate identifiable concerns. The identification of one overall factor could possibly be the result of using nominal data for this analysis, although it appears likely that Friel's (1985) areas of codependent concern are so closely correlated within the concept of codependency that it is impossible to tease them apart. The use of an equal interval scale would have provided a better spread of scores across each item, and a more realistic measure of codependent concerns among nurses.

The question being asked of the factor analysis was: Are there any specific areas of codependent concern for the nurse subjects in this study? The results of this factor analysis showed there to be one overall factor and therefore revealed no specific areas of codependent concern among study subjects.

Limitations. Generalisations made from the findings of this factor analysis are limited by the use of nominal data, the low item to factor correlations, and the small percentage of total variance accounted for by the four factors.

Chapter 7 Discussion and Conclusions

Major Findings

According to this study, the mean rating for severity of codependent concerns among registered nurses in WA was mild to moderate, with at least one in three nurses reporting moderate to severe or severe codependent concerns. No significant relationships were found between specific nursing practice variables and the severity of codependent concerns in this sample. The post hoc factor analysis supported the validity of the CAI as a measure of codependence, but it did not support Friel's claim that the instrument covers specified areas of codependent concern.

Discussion

The mean severity level of mild to moderate codependent concerns among nurses in this study concurs with the findings of similar studies conducted by Chappelle and Sorrentino (1993), King and Miracle (1992) and Turner and Phillips, (1993). This study did not seek to compare the severity of nurses' codependent concerns with that of non nurses as some previous studies have done. Feelings of well-being are believed to diminish as the severity of codependent concerns increases (Friel & Friel, 1987; Whitfield, 1991b), indicating that the severity levels for nurses found in this study deserve attention regardless of the severity levels of non nurses.

At least 70% of nurses reported (a) putting the needs of others before their own needs, (b) self imposed pressure to achieve more, and (c) physical fatigue. More than 90% of subjects reported taking on more than their share of work.

Caretaking, or putting the needs of others before personal needs, is believed to precede disillusionment and burnout among nurses (Caffrey & Caffrey, 1994; Cauthorne-Lindstrom, 1990; Chappelle & Sorrentino, 1993; Davidhizar & Shearer, 1994; Joel, 1994; Murphy, 1994; Ralph, 1993; Snow & Willard, 1989; Yates & McDaniel, 1994). Self-imposed pressure to continually achieve has been shown to positively correlate with nursing burnout (Crotty, 1987; O'Brien & Page, 1994; Pines & Aronsen, 1988; Powell, 1993; Scott, 1989; Veninga & Spradley, 1981), and taking on more than a reasonable workload is also believed to be related to burnout (Adams, 1993; Crotty, 1987; Freudenberger 1980; Friel, 1985). Whilst some of these observations are inconclusive they do offer stimulus for further study of the relationship between codependency and burnout in nurses.

More than 65% of the study subjects reported a lack of openness in family of origin. Lack of openness in family of origin during childhood is well documented as an antecedent to codependency and to associated communication difficulties in adulthood (Beattie, 1989; Friel & Friel, 1988; Mellody, 1989; Weinhold, 1991; Whitfield, 1991b; Wilson-Schaef, 1986).

Of professional importance is the finding that certain nursing practice variables did not correlate significantly with the severity of codependent concerns. The literature claims that the professional demands of nursing such as the hierarchical decision-making arrangement of health care institutions (Arnold, 1990b; Cauthorne-Lindstrom, 1990; Klebanoff, 1991), the financial constraints of health care systems (Joel, 1994; Sherman, Cardea, Gaskill & Tynan, 1989), and the caregiving role itself (Herrick, 1992; Klebanoff, 1991; Shelly, 1991) all foster codependency. If codependency is fostered by these

demands, then it would be reasonable to expect that the longer a nurse is exposed to them, the more severe his or her codependent concerns will be. This study showed there to be no significant relationship between years of experience in nursing and the severity of codependent concerns among nurses in this sample.

If certain professional demands that are peculiar to specific practice areas foster codependency, then practice in a specific area may he expected to show a relationship to the severity of codependent concerns. Such a relationship was unable to be demonstrated in this study, although this finding is limited by the fact that actual length of time subjects had been practicing in their most recent area of practice was not determined.

A post hoc factor analysis of raw CAI data failed to yield any information regarding specific areas of codependent concern among the subjects in this study. It also failed to support Friel's (1985) claim that the instrument covers 12 specific areas of codependent concern. It did offer support however, for the construct validity of the CAI as a measure of codependency because it demonstrated the correlation of items within the instrument. By the same token, these correlations were close enough to suggest that the instrument could be shortened without losing its reliability.

The results of the factor analysis also suggested that codependence is a generalised condition rather than it being comprised of separate concerns. This finding is important with respect to Friel's (1985) suggestion that the CAI be used to assist counselling. If there are no discrete areas of codependent concern to be identified, then this instrument may be of little use in giving direction for counselling.

The Usefulness of Newman's Health Model as a Conceptual Framework

Within the model of health as expanding consciousness, Newman (1994) conceptualises health as increasing insight into human pattern. Pattern is described as having the qualities of "movement, diversity, and rhythm" (Newman, 1994, p. 72). The individual is identified by his or her pattern which may manifest as a disease state or a non-disease state.

Within this model the task of the nurse is to recognise and accept pattern as a meaningful reflection of the whole person. Acceptance does not mean passivity or lack of attention in the case of an individual with a disease state. It simply means seeing the disease experience as being meaningful for that individual and an opportunity for the reorganisation of pattern for greater harmony. The person achieves reorganisation in active partnership with the nurse and other health professionals.

The practical usefulness of Newman's model as a conceptual framework for this study resides in its rationale for the examination of pattern among nurses. Newman ascribes to the idea of a holographic universe, one in which an image of the whole is contained within each of the parts, and from this ideology believes that nurses can best recognise pattern in others by first getting in touch with their own pattern. This rationale is easily applied and understood.

In this study codependency was viewed as a pattern. Identification of the severity of codependent concerns among nurses was viewed as identification of the movement, diversity and rhythm of that pattern among nurses. This study provided some groundwork for nurses to build upon in order to get in touch with their own codependent patterns.

Whitfield (1991b) and other health professionals equate codependency with being human and link the severity of codependency to the severity of previous wounding. Wounding is generally accepted as part of the human experience. In a discussion of nurses as healers, Keegan (1994) insisted that recognition of wounding in the self is essential for nurses if they are to develop as healers. This mirrors Newman's pattern recognition theorem and describes the basis on which this study attempted to get in touch with the pattern of codependent concerns among nurses.

Implications for Nursing Practice

The implications of this study for nursing practice are based on the application of Newman's (1994) model of health as expanding consciousness. An important aspect of Newman's model is the acceptanee of pattern as a meaningful reflection of the whole person. Acceptance of pattern necessitates the absence of judgement that could deem a pattern to be good or bad. The pattern that has been identified in this study is described by health professionals as a disease state making it undesirable from the standpoint of the medical model. Nursing practice within the model of health as expanding consciousness requires the nurse to view such disease pattern as neither desirable nor undesirable but simply as a meaningful reflection of the whole person.

The pattern of codependent concerns among nurses as described by this study can be seen as an opportunity to effect change within nursing practice in order to aehieve greater harmony. Such change could begin in the professional areas of nursing education, nursing staff development and nursing management.

Nursing Education. The inclusion of the topic of codependency in nursing undergraduate as well as post-graduate nursing curricula appear to be warranted. Wilson-Schaef (1992) proposes that while helping professionals are unaware of the concept of codependency, they are not addressing their own codependent concerns. This study did not explore the extent to which nurses are aware of the concept of codependency, but the findings do imply that nurses would benefit from education about the topic. Awareness of codependency as a significant aspect of the human condition (Whitfield, 1991b) is considered essential for nurses from both personal and professional perspectives.

Nursing Staff Development. In-service staff development education that is provided for practicing nurses could include information about the dynamics of codependency and the availability of healing modalities.

The dynamics of codependency in nursing practice could be an area for exploration through reflective practice. Hart (1991) describes one technique for engaging in reflective practice that involves critical reflection in a group context. These groups are called *learning circles* and provide a forum for nurses to cognitively and affectively explore their experiences in order to enhance self-awareness and understanding. Such a technique would facilitate the shared exploration of codependent concerns among nurses.

Nursing is an intense and unpredictable human service role in which practitioners do work hard and care deeply as they support and promote human health. The findings of this study suggest that nurses would benefit immensely if support for their own health was an active goal within the profession. If at least 70% of registered nurses in WA are

putting the needs of others before their own needs, and more than 90% are taking on more than their share of work, the health of these nurses is probably being compromised.

It is recommended that the role of a *nurses' advocate* be developed and undertaken by a nurse who is in touch with his or her own codependent patterns. An experienced nurse with positive feelings about nursing would have the potential to provide effective advocacy, support and guidance for nurses. The placement of an on-site nurses' advocate could provide teaching, counselling and identification of recovery programs available in the community for nurses seeking to address their own codependency. This nurse could also provide leadership for reflective practice groups, and facilitate debriefing following stressful emotional events in the workplace.

Apart from the obvious benefits of an on-site nurses' advocate for the nurse employee, the employer providing this service would also benefit. In a discussion of codependency among nurses, Summers (1992) refers to studies which show that employees who are engaged in recovery from codependency show diminished levels of absenteeism and an increase in physical health and well-being. Bennett et al (1992) report that organisational effort to support the personal growth of nurse employees is a highly cost-effective staff retention strategy.

Nursing Management. Areas through which nursing management might actively effect change for greater harmony include recruitment, performance appraisal and quality control. A recruitment process that informs prospective employees of the best and worst workload scenarios inherent in the job would enable informed decision making regarding projected workload. Performance appraisal could include items relating to areas of codependent concern such as self care, enjoyment of practice, feelings identification and

over responsibility. The inclusion of such items would stimulate self awareness and provide a forum for constructive goal setting in these areas. Quality control auditing could include measures of staff workload and overtime followed by creative problem solving where indicated.

Recommendations for Further Research

It is strongly recommended that the relationship between codependency and burnout among nurses be scientifically examined. Research is required to examine the phenomena of nursing burnout with particular reference to caretaking and over-responsibility as they relate to high service ideals in practitioners.

Newman (1994) recommends that nursing research explore health as expanding consciousness within the unitary-transformative paradigm. This paradigm is described as that which "involves two or more unitary beings engaged in the evolving patterning of their interconnected fields" (p. 88). According to Newman, this can be achieved by using a phenomenological approach to identify the unfolding patterns of human change. Newman (1994) offers a research protocol for the phenomenological study of pattern so as to capture that which is most meaningful in the participants' experience. Data are then synthesised to form propositions of shared experience. In a phenomenological study of codependency and the healing process, Sheets (1993) synthesised the reported experiences of 13 group members in order to know how to help codependent people move toward greater harmony. It is recommended that a similar approach using Newman's protocol be used to describe the shared experience of codependent concerns among nurses.

Since the factors identified in the exploratory factor analysis of this study seem to promise some relationship to Friel's codependency constructs, it is recommended that new items be developed to test these factors. Further development should be done on the CAI to reduce the number of items. The close correlation of these items as well as the very high CAI reliability coefficient suggest that the instrument could be shortened without it losing construct validity.

Conclusion

According to this study, the mean severity rating for codependent concerns among registered nurses in WA was mild to moderate. No significant relationships were found between years of experience in nursing or area of nursing practice and the severity of codependent concerns. A post hoc analysis demonstrated the homogeneity of the CAI as a measure of codependency but failed to support Friel's (1995) claim that the instrument covers twelve nominated areas of codependent concern.

These findings suggest that codependency is problematic among registered nurses in WA, but that the demands of the profession do not foster codependency in this group. Further research is required to (a) describe the relationship between codependency and burnout in nurses, (b) refine the CAI as a more succinct measurement instrument, and (c) test the theoretical constructs of Friel and Friel's (1987) conceptual model of codependency as they relate to the factors identified in this study.

The findings of this study highlight the crucial need to educate nurses about codependency at both undergraduate and graduate levels. As a health-related descriptor of the human condition, codependency has direct relevance for nurses and nursing. It is

strongly recommended that the role of nurses' advocate be developed within the profession to promote and support nurses' recovery from disabling codependent concerns.

This study has provided material for nurses to use in either valuing one another or criticising and blaming one another. Dr. Patch Adams (Couchman, 1994), pioneer of a new medical practice model, says that friendship is the most important part of health care and describes himself as a joyful codependent. The point he makes is that codependency has a positive function as well as a negative one. For example, the capacity of nurses to give friendly and compassionate care to the sick is a powerful healing attribute. However, when such caring compromises the health of the nurse, reorganisation is indicated. Similarly, the ability of nurses to work hard and efficiently can be either satisfying and constructive, or wearing and unsettling. As with any phenomena or pattern, there exists a rhythm or dynamic that includes the harmonious, organised aspect and the less harmonious, disorganised aspect (Newman, 1994; Reanney, 1994).

In attending to the problem of codependent concerns among nurses, the recommended approach would be to choose appropriate healing modalities with a caring acceptance of shared pattern. Recognition of the pattern of codependent concerns among nurses provides an opportunity for the profession to value itself as whole.

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Appendix A

Friel Codependency Assessment Inventory

Friel,J. (1985 May/June) Codependency Assessment Inventory. Focus, 20-21.

Below are a number of questions dealing with how you feel about yourself, your life, and those around you. As you answer each question be sure to answer honestly, but do not spend too much time dwelling on any one question. There are no right or wrong answers. Take each question as it comes, and answer as you usually feel.

Please circle *true* or *false* in response to each item below.

1. I make enough time to do things just for myself each week. *true* *false*

2. I spend lots of time criticizing myself after an interaction with someone. *true* *false*

3. I would not be embarrassed if people knew certain things about me. *true* *false*

4. Sometimes I feel like I just waste a lot of time and don't get anywhere. *true* *false*

5. I take good enough care of myself. *true* *false*

6. It is usually best not to tell someone if they bother you; it only causes fights and gets everyone upset. *true* *false*

7. I am happy about the way my family communicated when I was growing up. *true* *false*

8. Sometimes I don't know how I really feel. *true* *false*

9. I am very satisfied with my intimate love life. *true* *false*

10. I've been feeling tired lately. *true* *false*

11. When I was growing up, my family liked to talk openly about problems. *true* *false*

12. I often look happy when I am sad or angry. *true* *false*

13. I am satisfied with the number and kind of relationships I have in my life. *true* *false*

14. Even if I had time and money to do it, I would feel uncomfortable taking a vacation by myself. *true* *false*

15. I have enough help with everything that I must do each day. *true* *false*

16. I wish that I could accomplish a lot more than I do now. *true* *false*

17. My family taught me to express feelings and affection openly when I was growing up. *true* *false*

18. It is hard for me to talk to someone in authority (boss, teachers etc.) *true* *false*

19. When I am in a relationship that becomes too confusing and complicated, I have no trouble getting out. *true* *false*

20. I sometimes feel pretty confused about who I am and where I want to go with my life. *true* *false*

21. I am satisfied with the way that I take care of my own needs. *true* *false*

22. I am not satisfied with my career. *true* *false*

23. I usually handle my problems calmly and directly. *true* *false*

24. I hold back my feelings much of the time because I don't want to hurt other people or have them think less of me. *true* *false*

25. I don't feel like I'm in a rut very often. *true* *false*

26. I am not satisfied with my friendships. *true* *false*

27. When someone hurts my feelings or does something that I don't like, I have little difficulty telling them about it. *true* *false*

28. When a close friend or relative asks for my help more than I'd like, I usually say "yes" anyway. *true* *false*

29. I love to face new problems and am good at finding solutions to them. *true* *false*

30. I do not feel good about my childhood. *true* *false*

31. I am not concerned about my health a lot. *true* *false*

32. I often feel like no one really knows me. *true* *false*

33. I feel calm and peaceful most of the time. *true* *false*

34. I find it difficult to ask for what I want. *true* *false*

35. I don't let people take advantage of me more than I'd like. *true* *false*

36. I am dissatisfied with at least one of my close relationships. *true* *false*

37. I make major decisions quite easily. *true* *false*

38. I don't trust myself in new situations as much as I'd like. *true* *false*

39. I am very good at knowing when to speak up and when to go along with others' wishes. *true* *false*

40. I wish I had more time away from my work. *true* *false*

41. I am as spontaneous as I'd like to be. *true* *false*

42. Being alone is a problem for me. *true* *false*

43. When someone I love is bothering me, I have no problem telling them so. *true* *false*

44. I have so many things going on at once that I'm really not doing justice to any one of them. *true* *false*

45. I am very comfortable letting others into my life and revealing "the real me" to them. *true* *false*

46. I apologize too much to others for what I do or say. *true* *false*

47. I have no problem telling people when I am angry with them. *true* *false*

48. There's so much to do and not enough time. Sometimes I'd like to leave it all behind me. *true* *false*

49. I have few regrets about what I have done with my life. *true* *false*

50. I tend to think of others more than I do of myself. *true* *false*

51. More often than not, my life has gone the way that I wanted it to. *true* *false*

52. People admire me because I am so understanding of others, even when they do something that annoys me. *true* *false*

53. I am comfortable with my own sexuality. *true* *false*

54. I sometimes feel embarrassed by behaviours of those close to me. *True* *false*

55. The important people in my life know "the real me" and I am okay with them knowing. *true* *false*

56. I do my share of work, and often do quite a bit more. *true* *false*

57. I do not feel that everything would fall apart without my efforts and attention. *true* *false*

58. I do too much for other people and later wonder why I did so. *true* *false*

59. I am happy about the way my family coped with problems when I was growing up. *true* *false*

60. I wish that I had more people to do things with. *true* *false*

Appendix B

Permission to Use the Friel Codependency Assessment Inventory

Copy of Written Permission to Use the Friel Codependency Assessment Inventory

JUN 13 '95 16:27 FRIEL & ASSOCIATES P.1

Friel & Associates Lifeworks

Shoreview Business Campus
4176 Lexington Avenue North
Shoreview, MN 55126

JOHN C. FRIEL, Ph.D.
Licensed Psychologist #LP0504

LINDA D. FRIEL, M.A., C.C.D.P.
Licensed Psychologist #LP0724

(612) 482-7982

FAX (612) 486-8906
CEL (612) 840-2092

Sue Bysouo
Edith Cowan University
FAX 011 61 9 273 8699

Dear Sue:

You have my permission to use the Co-Dep Inv. as you described in your fax of 6/13/95. I have attached here one study indicating reliability for the instrument. If you wish more info, it will have to be mailed. There are several studies out.

I look forward to seeing your results!

[redacted]

Copy of Fax Referred to in Written Permission to Use the Friel Codependency Assessment Inventory

Attention Dr John Friel - Fax from Sue Besomo Western Australia
Return Fax Number 011 61 9 273 8699
Sue Besomo (Higher Degree Student)
Edith Cowan University CHURCHLANDS Western Australia 6018
Fax No for Edith Cowan University from USA 011 61 9 273 8699

June 13 1995

Dr John Friel
Friel & Associates / Lifeworks
Shoreview Business Campus
4176 N. Lexington Ave
Shoreview, MN 55126

Dear Dr Friel

Once again, thank you for sending me the studies which have used the Friel Codependency Assessment Inventory (FCAI) and copies of your own articles. I trust that you received the copies of recent studies which I found also.

I am writing to request permission to use the FCAI for a research project which forms part of my Master of Nursing Degree. The university at which I am studying, Edith Cowan University in Western Australia, requires me to gain written permission from you to **(a) administer the tool to the subjects of my study (n=1000 registered nurses)**, and to **(b) include a copy of the tool in my thesis with the appropriate acknowledgement of source.** The person at the university who oversees such matters is unsure of the adequacy of permission given by you in the 1985 article in Focus in which you published the tool.

I would be most grateful if you could Fax me a letter of permission as I am ready to begin data collection. The Fax No for return is the university Fax No. noted above

My study is entitled "Codependent Concerns Among Nurses" and will survey a random sample of 1000 nurses on the WA Nurses Board Register. There appears to be great interest in the issue of codependency among nurses according to a mountain of anecdotal articles in the professional nursing literature, but little research has been conducted (none in Australia).

I have experienced some difficulty locating the publication where you report initial reliability testing for the tool. Could you identify this source for me please?

Thank you for your assistance, I am most grateful.

Yours sincerely

Sue Besomo

Appendix C

Demographic Survey

Please **do not** put your name on this survey. All information is for nursing research purposes only.

1. Age_____ Sex_____

2. Years of professional nursing experience _____

3. Nurse education/training completed at;

   (Please circle) Hospital University Both

4. Currently practicing; (Please circle) yes no

5. Current area of practice (If not currently practicing, last area of practice).

   (Please circle)

Gerontology	Operating Suite
Mental Health	Accident & Emergency
Intensive/Coronary Care	Education/Staff Development
Management	Clinical (medical/surgical)
Research	Doctor's surgery
Midwifery	Paediatrics

Other (please specify)_____

Please turn over the page to complete questionnaire...
[The CAI will be printed overleaf]

Appendix D

Letter to Potential Subjects

[redacted]

Date

Dear Nursing Colleague,

The Edith Cowan University Ethics Committee, and the Nurses' Board of WA have given me permission to invite you to participate in a nursing research study I am conducting. The study is entitled "Codependent Concerns Among Nurses" and deals with the relationships between nurses' feelings about themselves and their lives, and nursing burnout.

If you are willing to participate it will require 15 minutes of your time to respond to the enclosed questionnaire. This questionnaire deals with your feelings about yourself, your life and those around you, and includes a section asking for some professional details. **You are not required to reveal your identity at any time.** A stamped addressed envelope has been enclosed for return of the questionnaire.

This research is a requirement for my Master of Nursing degree. I believe that this study will provide a beginning step toward addressing disillusionment and burnout among registered nurses as reported in the nursing literature.

I would like to assure you that the Nurses' Board has not given me your name or address, but have agreed to address and mail questionnaires to a computerised random sample of names from the register. Therefore I have no knowledge of who has been contacted, and do not require that information. This procedure completely assures your anonymity, confidentiality and privacy, since no person other than yourself will actually know who has responded.

If you have any questions about the study or about responding to the questionnaire, I am able to be contacted on 244 1826 at all hours. The findings of this study will be available in report form from me in December 1995, or in thesis form at the Edith Cowan University Library (Churchlands) early next year.

Thank you for your consideration of this request. I will be most grateful indeed to those who decide to participate in this study, and ask that you accept my thanks through this letter.

Yours sincerely

Sue Besomo RN

Appendix E

Reminder Letter to Potential Subjects

[redacted]

Date

Dear Nursing Colleague,

Several weeks ago you were sent a letter regarding a nursing research study dealing with the relationships between nurses' feelings about themselves and their lives, and nursing burnout.

This letter is to remind you to mail your completed nursing research questionnaire to me if you have decided to respond but have not yet done so. Since I do not know whose questionnaires have been returned, this letter has been mailed by the Nurses' Board to all nurses who were contacted initially.

If you have responded and returned your questionnaire please ignore this reminder, and accept my thanks once again for contributing to this study.

Yours sincerely

Sue Besomo RN

Appendix F

Copy of Fax Sent by Health Department of Western Australia with Data on National Labourforce Survey of Nurses Registered with the Nurses' Board of Western Australia

27/02/96 11:09 H. D. W. A. STAFF DEVELOPMENT → 61 9 383 8699 005

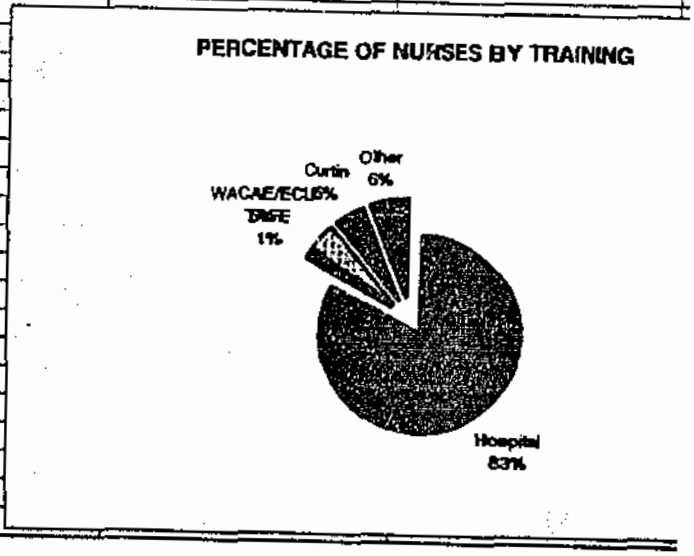
Data for Nurses registered as General, Midwives and Mental Health Nurses who responded to the 1995 National Labourforce Survey:

Total number of male nurses	888
Total number of female nurses	13292
Missing	28
Total number of nurses	14208

Total number of General nurses	13527
Total number of Midwives	3057
Total number of Mental Health Nurses	1043
Total number of nurses	17627

Average yearborn (not age) for males	54.59
Average yearborn (not age) for females	54.42

Percentage of Nurses by Training		
Institution	Count	Percent
HOSPITAL	14721	83%
TAFE	247	1%
CURTIN	863	5%
WACAE/ECU	889	5%
OTHER	1083	6%
TOTAL	17803	100%



Appendix G

SPSS Output Data

Frequency Output for Female Age

Value	Frequency	Percent	Valid Percent	Cum Percent
28.00	2	.4	.4	.4
29.00	6	1.1	1.1	1.4
30.00	10	1.8	1.8	3.3
31.00	15	2.7	2.7	6.0
32.00	25	4.5	4.5	10.5
33.00	16	2.9	2.9	13.4
34.00	21	3.8	3.8	17.2
35.00	18	3.3	3.3	20.4
36.00	26	4.7	4.7	25.1
37.00	26	4.7	4.7	29.8
38.00	21	3.8	3.8	33.6
39.00	27	4.9	4.9	38.5
40.00	35	6.3	6.3	44.8
41.00	19	3.4	3.4	48.3
42.00	20	3.6	3.6	51.9
43.00	17	3.1	3.1	55.0
44.00	23	4.2	4.2	59.1
45.00	14	2.5	2.5	61.7
46.00	23	4.2	4.2	65.8
47.00	19	3.4	3.4	69.3
48.00	22	4.0	4.0	73.2
49.00	13	2.4	2.4	75.6
50.00	15	2.7	2.7	78.3
51.00	14	2.5	2.5	80.8
52.00	10	1.8	1.8	82.6
53.00	10	1.8	1.8	84.4
54.00	15	2.7	2.7	87.2
55.00	11	2.0	2.0	89.2
56.00	5	.9	.9	90.1
57.00	14	2.5	2.5	92.6
58.00	13	2.4	2.4	94.9
59.00	7	1.3	1.3	96.2
60.00	7	1.3	1.3	97.5
61.00	6	1.1	1.1	98.6
62.00	2	.4	.4	98.9
63.00	2	.4	.4	99.3
66.00	1	.2	.2	99.5
67.00	1	.2	.2	99.6
71.00	2	.4	.4	100.0
Total	553	100.0	100.0	

Frequency Output for Male Age

Value	Frequency	Percent	Valid Percent	Cum Percent
33.00	1	3.2	3.2	3.2
35.00	2	6.5	6.5	9.7
36.00	1	3.2	3.2	12.9
37.00	2	6.5	6.5	19.4
38.00		9.7	9.7	29.0
39.00	.	3.2	3.2	32.3
40.00	2	6.5	6.5	38.7
41.00	2	6.5	6.5	45.2
44.00	1	3.2	3.2	48.4
45.00	1	3.2	3.2	51.6
48.00	1	3.2	3.2	54.8
49.00	2	6.5	6.5	61.3
50.00	1	3.2	3.2	64.5
51.00	1	3.2	3.2	67.7
52.00	2	6.5	6.5	74.2
54.00	1	3.2	3.2	77.4
56.00	2	6.5	6.5	83.9
58.00	2	6.5	6.5	90.3
61.00	1	3.2	3.2	93.5
65.00	2	6.5	6.5	100.0
Total	31	100.0	100.0	

Appendix G

SPSS Output Data

Frequency Output for Female Age

Value	Frequency	Percent	Valid Percent	Cum Percent
28.00	2	.4	.4	.4
29.00	6	1.1	1.1	1.4
30.00	10	1.8	1.8	3.3
31.00	15	2.7	2.7	6.0
32.00	25	4.5	4.5	10.5
33.00	16	2.9	2.9	13.4
34.00	21	3.8	3.8	17.2
35.00	18	3.3	3.3	20.4
36.00	26	4.7	4.7	25.1
37.00	26	4.7	4.7	29.8
38.00	21	3.8	3.8	33.6
39.00	27	4.9	4.9	38.5
40.00	35	6.3	6.3	44.8
41.00	19	3.4	3.4	48.3
42.00	20	3.6	3.6	51.9
43.00	17	3.1	3.1	55.0
44.00	23	4.2	4.2	59.1
45.00	14	2.5	2.5	61.7
46.00	23	4.2	4.2	65.8
47.00	19	3.4	3.4	69.3
48.00	22	4.0	4.0	73.2
49.00	13	2.4	2.4	75.6
50.00	15	2.7	2.7	78.3
51.00	14	2.5	2.5	80.8
52.00	10	1.8	1.8	82.6
53.00	10	1.8	1.8	84.4
54.00	15	2.7	2.7	87.2
55.00	11	2.0	2.0	89.2
56.00	5	.9	.9	90.1
57.00	14	2.5	2.5	92.6
58.00	13	2.4	2.4	94.9
59.00	7	1.3	1.3	96.2
60.00	7	1.3	1.3	97.5
61.00	6	1.1	1.1	98.6
62.00	2	.4	.4	98.9
63.00	2	.4	.4	99.3
66.00	1	.2	.2	99.5
67.00	1	.2	.2	99.6
71.00	2	.4	.4	100.0
Total	553	100.0	100.0	

Frequency Output for Male Age

Value	Frequency	Percent	Valid Percent	Cum Percent
33.00	1	3.2	3.2	3.2
35.00	2	6.5	6.5	9.7
36.00	1	3.2	3.2	12.9
37.00	2	6.5	6.5	19.4
38.00	3	9.7	9.7	29.0
39.00	1	3.2	3.2	32.3
40.00	2	6.5	6.5	38.7
41.00	2	6.5	6.5	45.2
44.00	1	3.2	3.2	48.4
45.00	1	3.2	3.2	51.6
48.00	1	3.2	3.2	54.8
49.00	2	6.5	6.5	61.3
50.00	1	3.2	3.2	64.5
51.00	1	3.2	3.2	67.7
52.00	2	6.5	6.5	74.2
54.00	1	3.2	3.2	77.4
56.00	2	6.5	6.5	83.9
58.00	2	6.5	6.5	90.3
61.00	1	3.2	3.2	93.5
65.00	2	6.5	6.5	100.0
Total	31	100.0	100.0	

Frequency Output for Male/Female Professional Preparation

Count / Tot Pct	GENDER: female 1.00	male 2.00	Row Total
PROFPREP			
1.00 hospital based t	449 76.9	26 4.5	475 81.3
2.00 university based	11 1.9		11 1.9
3.00 hospital and uni	93 15.9	5 .9	98 16.8
Column Total	553 94.7	31 5.3	584 100.0

Number of Missing Observations: 0

Frequency Output for Male/Female Area of Professional Practice

Count / Tot Pct	GENDER: female 1.00	male 2.00	Row Total
WORKAREA			
1.00 gerontology	70 12.0	3 .5	73 12.5
2.00 community	55 9.4	2 .3	57 9.8
3.00 clinical	106 18.2	4 .7	110 18.8
4.00 mental health	10 1.7	14 2.4	24 4.1
5.00 midwifery	61 10.4	1 .2	62 10.6
6.00 operating suite	45 7.7	1 .2	46 7.9
7.00 accident/emergen	19 3.3	1 .2	20 3.4
8.00 education/resear	25 4.3		25 4.3
9.00 paediatrics	23 3.9		23 3.9
10.00 mixed work roles	26 4.5		26 4.5
11.00 management	34 5.8	4 .7	38 6.5
12.00 doctor's surgery	25 4.3		25 4.3
13.00 palliative care	9 1.5		9 1.5
14.00 intensive/corona	19 3.3	1 .2	20 3.4
15.00 bush	26 4.5		26 4.5
Column Total	553 94.7	31 5.3	584 100.0

Number of Missing Observations: 0

Frequency Output for CAI Scores

Value	Frequency	Percent	Valid Percent	Cum Percent
1.00	1	.2	.2	.2
2.00	1	.2	.2	.3
3.00	4	.7	.7	1.0
4.00	2	.3	.3	1.4
5.00	5	.9	.9	2.2
6.00	3	.5	.5	2.7
7.00	7	1.2	1.2	3.9
8.00	9	1.5	1.5	5.5
9.00	10	1.7	1.7	7.2
10.00	7	1.2	1.2	8.4
11.00	9	1.5	1.5	9.9
12.00	12	2.1	2.1	12.0
13.00	16	2.7	2.7	14.7
14.00	8	1.4	1.4	16.1
15.00	16	2.7	2.7	18.8
16.00	13	2.2	2.2	21.1
17.00	19	3.3	3.3	24.3
18.00	15	2.6	2.6	26.9
19.00	15	2.6	2.6	29.5
20.00	15	2.6	2.6	32.0
21.00	19	3.3	3.3	35.3
22.00	23	3.9	3.9	39.2
23.00	26	4.5	4.5	43.7
24.00	22	3.8	3.8	47.4
25.00	13	2.2	2.2	49.7
26.00	17	2.9	2.9	52.6
27.00	18	3.1	3.1	55.7
28.00	21	3.6	3.6	59.2
29.00	9	1.5	1.5	60.8
30.00	16	2.7	2.7	63.5
31.00	19	3.3	3.3	66.8
32.00	10	1.7	1.7	68.5
33.00	16	2.7	2.7	71.2
34.00	12	2.1	2.1	73.3
35.00	18	3.1	3.1	76.4
36.00	14	2.4	2.4	78.8
37.00	15	2.6	2.6	81.3
38.00	10	1.7	1.7	83.0
39.00	11	1.9	1.9	84.9
40.00	14	2.4	2.4	87.3
41.00	8	1.4	1.4	88.7
42.00	6	1.0	1.0	89.7
43.00	9	1.5	1.5	91.3
44.00	8	1.4	1.4	92.6
45.00	5	.9	.9	93.5
46.00	6	1.0	1.0	94.5
47.00	4	.7	.7	95.2
48.00	5	.9	.9	96.1
49.00	4	.7	.7	96.7
50.00	2	.3	.3	97.1
51.00	4	.7	.7	97.8
52.00	4	.7	.7	98.5
53.00	3	.5	.5	99.0
54.00	1	.2	.2	99.1
55.00	2	.3	.3	99.5
56.00	2	.3	.3	99.8
58.00	1	.2	.2	100.0
Total	584	100.0	100.0	

Valid cases 584 Missing cases 0

Chi Square for Years of Experience by Severity

YEARSEXP by SEVERITY

YEARSEXP	Count / Exp Val / Tot Pct	SEVERITY: few code pendent 1.00	mild to moderate 2.00	moderate to seve 3.00	severe c odepende 4.00	Row Total
<10	1.00	16 17.9 2.7%	21 18.2 3.6%	17 17.0 2.9%	3 4.0 .5%	57 9.8%
>10	2.00	167 165.1 28.6%	165 167.8 28.3%	157 157.0 26.9%	38 37.0 6.5%	527 90.2%
	Column Total	183 31.3%	186 31.8%	174 29.8%	41 7.0%	584 100.0%

Chi-Square	Value	DF	Significance
Pearson	.98722	3	.80435
Likelihood Ratio	.99666	3	.80206
Mantel-Haenszel test for linear association	.00035	1	.98516

Minimum Expected Frequency - 4.002
Cells with Expected Frequency < 5 - 1 OF 8 (12.5%)

Number of Missing Observations: 0

Pearson Product Moment Correlation Coefficient for Years of Experience by CAI Scores

	YEARSEXP	SCORE
YEARSEXP	1.0000 (584) P= .	-.0802 (584) P= .053
SCORE	-.0802 (584) P= .053	1.0000 (584) P= .

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

Output for Rotated Factor Matrix

Rotated Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4
Q1			.44391	
Q10			.43584	
Q11				.74205
Q12			.32597	
Q13	.54021			
Q14				
Q15			.46757	
Q16	.33167	.30836		
Q17				.69862
Q18		.48048		
Q19		.36811		
Q2		.44022		
Q20	.47519			
Q21	.45178		.40776	
Q22	.43050			
Q23	.42621			
Q24		.62580		
Q25	.56642			
Q26	.57243			
Q27		.61712		
Q28		.43038		
Q29		.41956		
Q3		.30572		
Q30	.30913			.55429
Q31				
Q32	.50433			
Q33	.52309			
Q34	.32799	.52643		
Q35		.46457		
Q36	.46541			
Q37	.34045	.42224		
Q38		.54686		
Q39	.42067			
Q4		.36881		
Q40	.30087		.37788	
Q41		.32891		
Q42				
Q43		.38501		
Q44			.46443	
Q45		.38355		
Q46		.42517		
Q47		.64552		
Q48			.47928	
Q49	.58149			
Q5			.43273	
Q50			.50879	
Q51	.54848			
Q52			.39535	
Q53	.36992			
Q54		.37495		
Q55	.48133			
Q56			.34864	
Q57				
Q58			.47264	
Q59				.71963
Q6		.48630		
Q60	.40077			
Q7				.79487
Q8		.32494		
Q9	.46756			

Final Statistics Output for Summary Information on Rotated Factors

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
		*				
Q1	.61129	*	1	10.39982	17.3	17.3
Q10	.42410	*	2	2.98253	5.0	22.3
Q11	.67137	*	3	2.32555	3.9	26.2
Q12	.57082	*	4	2.17273	3.6	29.8
Q13	.62407	*	5	1.61177	2.7	32.5
Q14	.62698	*	6	1.57803	2.6	35.1
Q15	.58792	*	7	1.43879	2.4	37.5
Q16	.56043	*	8	1.39055	2.3	39.8
Q17	.60762	*	9	1.25809	2.1	41.9
Q18	.43538	*	10	1.22132	2.0	44.0
Q19	.58983	*	11	1.16270	1.9	45.9
Q2	.49214	*	12	1.13708	1.9	47.8
Q20	.62137	*	13	1.12646	1.9	49.7
Q21	.58773	*	14	1.09052	1.8	51.5
Q22	.58005	*	15	1.06789	1.8	53.3
Q23	.50019	*	16	1.03752	1.7	55.0
Q24	.54577	*	17	1.02939	1.7	56.7
Q25	.50961	*				
Q26	.59199	*				
Q27	.56168	*				
Q28	.45084	*				
Q29	.49518	*				
Q3	.55698	*				
Q30	.55344	*				
Q31	.69593	*				
Q32	.60010	*				
Q33	.50136	*				
Q34	.46896	*				
Q35	.54086	*				
Q36	.47836	*				
Q37	.54397	*				
Q38	.52574	*				
Q39	.56154	*				
Q4	.59464	*				
Q40	.54105	*				
Q41	.51932	*				
Q42	.80033	*				
Q43	.60200	*				
Q44	.54258	*				
Q45	.65045	*				
Q46	.45699	*				
Q47	.63038	*				
Q48	.50595	*				
Q49	.70359	*				
Q5	.47294	*				
Q50	.51220	*				
Q51	.71133	*				
Q52	.46359	*				
Q53	.63986	*				
Q54	.62904	*				
Q55	.50363	*				
Q56	.61667	*				
Q57	.55590	*				
Q58	.57987	*				
Q59	.67054	*				
Q6	.48636	*				
Q60	.54212	*				
Q7	.70005	*				
Q8	.54058	*				
Q9	.58520	*				