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GENDER DIFFERENCES IN DEPENDENCY AMONG ALCOHOLICS

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A dissertation submitted to the Faculty of Arts,
University of the Witwatersrand, Johannesburg,
in partial fulfilment of the requirements for
the degree of Master of Arts (Clinical Psychology).

Johannesburg
September 1996.

DECLARATION

I declare that this dissertation is my own, unaided work. It is submitted for the degree of Master of Arts (Clinical Psychology), in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

SIGNED: _____

30 DAY OF September, 1996.

To my partner, Julia.
You helped me
through this endeavour
with love, encouragement
and unending patience.
And to my son, Oscar.
You only arrived in April 1996,
but you certainly contributed
to the motivation for me
to complete this study.

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ABSTRACT

Research has established that biological, sociological and psychological factors are involved in the presentation of alcoholism. Within the psychological domain, research has consistently found that a relatively small number of trait-clusters represent the personality profiles of a significant proportion of alcoholics. Dependency has consistently emerged as a prominent feature in a number of these profiles. Research into the relationship between dependency and alcoholism is limited. The majority of significant studies on the relationship between alcoholism and personality have failed to investigate the nature or extent of gender differences. Gender differences are influenced by social forces, including the social construction of gender. The social construction of gender is influenced by patriarchal interests and forces. Patriarchy is a social dynamic that encourages, *inter alia*, the expression of dependency needs and behaviours in women, and discourages their expression in men. Dependent individuals are motivated to enter and maintain nurturing and supportive relationships with others. High dependency needs can have a negative impact on interpersonal relationships, and can result in the failure of these relationships. Such failure is experienced by dependent individuals as emotionally distressing, and results in affective pain. Alcohol, under certain, everyday conditions can temporarily alleviate emotional pain. The current study hypothesised that as a consequence of the above dynamics, dependency is more likely to be a feature in the presentation of women alcoholics than among men alcoholics. This was tested by comparing the mean levels of dependency for women alcoholics with that for men alcoholics, women non-alcoholics and men non-alcoholics. The MCMI-II self-report inventory was used to measure dependency. Data was obtained from an alcoholic outpatient clinic and a general medical outpatient clinic. Women alcoholics were found to report higher levels of dependency than women non-alcoholics. However, they were not found to manifest higher levels of dependency than men alcoholics.

CHAPTER ONE - INTRODUCTION

> In lifetime prevalence rates, alcoholism now ranks first of all psycl tric disorders (Leonard, 1993, p. 190).

Contemporary research makes it clear that both globally (Galanter, 1995) and in South Africa (Rocha-Silva, de Miranda, & Tshabalala, 1995) alcoholism is a substantial social problem, and one that is on the increase. Furthermore, it emerges from research that the patterns of alcohol abuse are changing. Rocha-Silva *et al.* (1995) report:

> National longitudinal data in South Africa ... suggest that major changes are taking place regarding alcohol/drug practices. Particularly disturbing are indications of a progressive increase in the general level of drug and especially alcohol intake among adults, specifically in historically disadvantaged black communities and among women generally (p. 1).

Historically, alcoholism was perceived to be a more significant problem among males, and the majority of research focused almost exclusively on men. However, as is apparent in the excerpt from Rocha-Silva *et al.* (1995) report above, there is growing evidence and awareness that drinking problems are becoming increasingly common among women.

In his discussion on alcoholism among women, Shaw (1980) observed:

> Virtually every contemporary report on the prevalence of drinking problems mentions that drinking problems are increasing, and increasing most among women (p. 1).

He found evidence to support this in statistics on phenomena such as drunkenness offense rates, the numbers of women receiving treatment for drinking problems, liver cirrhosis as well as alcoholic mortality (*ibid.*).

The South African National Council on Alcoholism and Drug Dependence (SANCA) estimated that the number of women drinkers has increased by 10 percent over the last decade (SANCA, 1993). In addition, this report notes that there is a growing body of evidence which indicates that women are more susceptible than men to a range of alcohol-related illnesses, including liver, heart and bone disease, and disorders of the central nervous system. Drinking during pregnancy has been shown to be the direct cause of fetal alcohol syndrome. It is also linked with increased vulnerability to breast cancer. Furthermore, within the psycho-social domain, alcohol abuse has been directly linked to rape, domestic violence and sexually transmitted diseases, including HIV (*ibid.*).

Hill (1995) reported similar findings in the United States of America. She observed that chronic alcohol consumption among women reduces life expectancy, due to factors such as increased rates of accidental and suicidal mortality, increased risk for breast cancer and osteoporosis. She also found that such women are also at increased risk for cardiovascular, hepatological, and neuropathological disorders, as well as for HIV/AIDS and domestic violence.

From this, it has become increasingly evident that the effects of alcohol are potentially very harmful to women.

Yet, despite its prevalence, the aetiology of alcoholism is poorly understood, and prognosis for a favourable recovery is poor. Research into alcohol abuse remains a priority, and research on abuse among women has emerged as an increasingly important focus.

Historically, research into the causal factors underlying alcoholism has emanated from a spectrum of scientific perspectives. These might be grouped into three primary approaches, biological, psychological and socio-cultural.

Biological approaches take the view that alcoholism is the consequence of a genetic or physiological predisposition. Researchers working from this perspective have explored genetic, metabolic, neurotransmitter activity, endocrinal, physiological responsivity, and racial differences between alcoholics and non-alcoholics (Anthenelli & Schucket, 1992).

Socio-cultural perspectives note that there are significant differences in the patterns of consumption of alcohol, as well as alcoholism, in different cultures and religions around the world. Research emerging from this view focuses on possible reasons for these differences, noting the impact of factors such as social and religious mores on alcohol, the role given to alcohol in social interaction, and the impact of social change and social disintegration (Johnson & Muffler, 1992).

Psychological perspectives too, have pursued a range of foci. These might usefully be grouped into the areas of personality vulnerability (Sandahl, Lindberg & Bergman, 1987), alcohol expectancies (Edgar & Knight, 1994), cognitive disruption (Sayette, 1993), and behavioural reinforcement (Levenson *et al.*, 1982).

With regard to personality vulnerability, the notion that particular personality types predispose one to the development of problems with alcohol, is popular. Despite a substantial volume of research into this view, evidence has not been conclusive. In concluding an extensive investigation into the role of personality factors in alcoholism, Graham and Strenger (1988) write:

> Attempts to understand alcoholism solely in terms of personality differences ... ignore the probable importance of biological, situational, and socio-cultural factors (p. 203).

In the past, proponents of the biological, psychological and socio-cultural approaches have debated the exclusivity, or relative importance, of each of these individual perspectives. More recently the view expressed by Shaw (1980, p. 8), that "evidence ... has demonstrated that the causes of drinking problems are multifactorial, involving social, economic, psychological and physiological factors", has gained support.

However, within the range of recent research investigating the link between personality and alcoholism, gender differences have seldom been the clear focus of study. It is against this broad background that the current research explores one aspect of possible personality differences between men and women in the presentation of alcoholism.

This study proposes that further investigation into the influence and role of gender and personality factors in the aetiology and/or maintenance of alcoholism continues to be instructive. Such work has valuable implications for the development of treatment interventions appropriate to the specific needs of different subgroups within the population of alcoholics.

At the same time, this study notes the limitations of any single-factor study of alcoholism. Notwithstanding such limitations, this investigation assumes that the study of a single factor *per se*, does not lay claim to any aetiological exclusivity, but believes rather that it can shed further light within a polyfactorial framework.

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CHAPTER TWO - LITERATURE REVIEW

This chapter explores issues arising from current literature pertaining to gender, dependency, and alcohol abuse. First, recent research in the study of the relationship between personality factors and alcohol abuse is reviewed. Next, dynamics inherent in the social construction of gender are explored, with particular reference to interpersonal dependency. Meanings of dependency are discussed, as are some of its interpersonal and affective consequences. The phenomenon of alcohol abuse is outlined, with particular emphasis on its short-term, psychological effects. The self-medication hypothesis of addictive disorders is reviewed. Finally, an integrated hypothesis linking gender, dependency and alcohol abuse is set out.

2.1 Alcohol abuse & personality

Much of the early psychological research into personality factors underlying alcoholism sought to determine whether there existed a particular personality trait, or cluster of traits, which predisposed particular individuals to the abuse of alcohol (Bartsch & Hoffman, 1985). Repeatedly, evidence has indicated that there is no single 'alcoholic personality' which differentiates alcoholics from non-alcoholics (Graham & Strenger, 1988; Matano, Locke, & Schwartz, 1994). Rather, evidence suggests that a variety of personality traits are positively correlated with substance abuse (Donat, Walters, & Hume, 1992; Graham & Strenger, 1988). Moreover, it is becoming increasingly apparent that there are high rates of personality problems among the populations of alcoholics (Donat, Walters, & Hume, 1992; Fals-Stewart, 1992; Matano *et al.*, 1994).

In exploring issues pertaining to personality, it is important to make the distinction between the relatively transient features of one's behaviour from the more consistent and enduring ways of responding to the world. The former have come to be known

as 'states', the latter as 'traits'(Millon, 1987).

States refer to those aspects of an individual's behaviour which appear to be determined either by situational variables, or by some temporary biochemical imbalance (Millon, 1987). For example, a person may be angry, perhaps due to some situational injustice, yet may not usually be aggressive in his or her interpersonal interaction. Similarly, a person may be depressed, either because of some current crisis or situational upset, such as bereavement, or because of a temporary imbalance in neurophysiological functioning, yet that person may not usually be dysthymic, lacking in energy, or negativistic.

Traits, on the other hand, refer to those behaviours which form the relatively stable characteristics or tendencies in an individual's functioning. Traits make it possible to describe and predict the fairly stable and consistent behaviours that an individual regularly displays across a range of different interpersonal situations. The cluster of traits manifested by an individual is known as the individual's personality (Millon, 1987). This investigation is concerned with traits, not with states. The terms 'personality' and 'traits' are used specifically with these meanings.

In order to determine which traits may play a role in alcoholism, researchers have used various personality inventories which are commonly used in psychological assessment. Two such inventories are the Minnesota Multiphasic Personality Inventory (MMPI) (Graham & Strenger, 1988; Stabenau & Hesselbrock, 1984) and the Millon Clinical Multiaxial Inventory (MCMI) (Bartsch & Hoffman, 1985; Donat *et al.*, 1991; Fals-Stewart, 1992; Matano *et al.*, 1994).

Graham and Strenger (1988) set out to determine whether it was possible to find a particular set of personality characteristics that differentiated alcoholics from non-alcoholics. Their methodology was to review a substantial number of studies which had used the MMPI to discover the nature of the alcoholic personality, and they

sought to determine whether there was sufficient congruence among the findings of the different studies for these to be integrated. They found that "hundreds of studies have investigated the extent to which the MMPI can differentiate alcoholics and non-alcoholics (*ibid.*, p. 197)." Their conclusion was that no single MMPI profile was able to differentiate alcoholics from non-alcoholics. They found, however, that the majority of alcoholics tended to cluster around six distinct profile types. These they described as follows.

Type I individuals are described as excitable, ineffective under stress and impulsive. They have difficulty in delaying gratification, and are dissatisfied with their accomplishments. They are sensitive both to rejection and lack of approval from significant others. Their anger is poorly controlled, and they often express guilt and remorse after periods of acting out. They declare the intention to change, but this does not usually occur, and old patterns are repeated. They typically have histories of poor vocational and marital adjustment.

Type II includes individual's who experience marked emotional turmoil, and who feel tense, anxious and nervous. They have problems with concentration and attention, depression, despondency and hopelessness. Typically they are shy, withdrawn, introverted and socially isolated.

Type III individuals are hypomanic with features of passive-aggressive personality disorder, anxiety disorder or depressive disorder. The essential features are a repressed emotionality and an inability to act assertively in the world.

Type V describes those individuals who display the primary characteristics associated with antisocial personality disorder, including drug addiction, marked disregard for social values, frequent conflict with authority, self-centredness, self-indulgence, impulsivity, poor judgement, inability to anticipate the consequences of their own behaviour, and a low capacity to experience anxiety or stress.

Type V individuals display somatic symptoms, including gastrointestinal discomfort and ulcers, often in response to stress. These people are often found to have neurotic diagnoses. The authors state that they find evidence of raised levels of dependency in males with this profile.

The final cluster, Type VI, describes those individuals with serious psychopathology, especially psychotic, disordered thinking, inappropriate affect and poor judgement. Alcohol problems are understood to be secondary to more serious psychopathology.

Several features of this article warrant comment. Firstly, the study seeks to integrate a substantial body of research which had a common focus, but which had become increasingly fragmented. In so doing, they find that a broad spectrum of psychopathology and personality difficulties are prominent among alcoholics. Secondly, they state explicitly that one of the clusters (Type V) includes "overly dependent individuals (*ibid.*, p. 200)." Furthermore, Type III includes individuals who have difficulty in assertively stating their needs in the world, and this as will be discussed later, is a clear feature of dependency. Finally, in their extensive review, these authors make no reference to findings of any gender differences. Many of the articles reviewed focused on exclusively male samples.

The MCMI is a relatively newer personality inventory. One early study, which used the MCMI to study personality pathology with substance abuse, sought to discover whether there were consistent personality differences between alcoholics and opiate addicts (Craig, Verinis, & Wexler, 1985). The study found that alcoholics scored higher in the Avoidant, Dependant, Submissive, Schizotypal, Borderline and Paranoid scales, whilst opiate addicts scored higher on the Narcissistic Scale. Two points are relevant. Firstly, the investigation found evidence for elevated levels of dependency among alcoholics. Secondly, the investigation made no comment on gender differences.

During the same year Bartsch and Hoffman (1985) compared data from both the MMPI and MCMI, to determine whether alcoholics tended to conform to a limited range of specific profiles. From the MCMI, they found that five relatively homogenous subgroups emerged. These five groups displayed elevations on the following scales of the MCMI.

Group 1: Anti-social/Aggressive & Conforming/ Compulsive.

Group 2: Narcissistic, Gregarious/Histrionic & Anti-social/Aggressive.

Group 3: Negativistic/Unstable & Passive, Dependent & Avoidant, Cycloid/Cyclophrenic & Paranoid/Paraphrenic.

Group 4: Narcissistic, Anti-social/Aggressive & Gregarious/Histrionic

Group 5: Schizoid, Avoidant & Passive/Dependent, Schizoid/Schizophrenic & Cycloid/Cyclophrenic, Anxiety & Neurotic Depression.

Several aspects of this study are germane to the current study. Firstly, the authors found that MCMI profiles clustered around five relatively homogenous groups, and that there were conceptual and statistical similarities to the subtypes that emerged when the MMPI was used. Secondly, elevations of dependency are prominent in Group 3, and of secondary importance in Group 5. Finally, the sample consisted of 125 men alcoholic inpatients. There were no women in the sample, and once again, findings have restricted external validity with regard to gender.

Donat *et al.*, (1991), using the MCMI, similarly found that a significant proportion of alcoholics conform to one of five general MCMI profiles, with elevations on the following scales traits:

Cluster 1: Dependant and Compulsive.

Cluster 2: Histrionic, Narcissistic and Antisocial.

Cluster 3: Schizoid, Avoidant, Dependant and Passive-Aggressive.

Cluster 4: Dependent.

Cluster 5: Histrionic and Passive-Aggressive.

Interestingly, in this study, women were included in the sample. Furthermore, when compared with the all male-based study by Bartsch and Hoffman (1985), it appears that the nature of the clusters has shifted somewhat. Dependency emerges as a more significant feature, with elevations in three of the five clusters. From this study it is again apparent that dependency is a significant feature of alcoholism. However, the sample used in this study included 148 men and 52 women, and, yet again, it is noted that the study failed to comment on any gender differences.

Some congruence between the five clusters described by Donat *et al.* (1991) and the six types described by Graham and Strenger (1988) is evident. Donat *et al.* 's (1991) Cluster I has similarities with Graham and Strengers' Type IV; Cluster II with Type I and III; Cluster III with Type II and IV; Cluster IV with Type V; and Cluster V with Type I and III. Only Graham and Strengers' (1988) Type VI has no equivalent category in Donat *et al.* 's (1991) typology. The sample in this last study included only primary alcoholics, and excluded individual's with primary diagnoses of psychotic disorder, thereby excluding the possibility of finding a similar cluster.

The primary difficulty in integrating findings, which have used these two different inventories, is that they draw on different theoretical foundations. Antoni (1993), found that the MMPI is the more effective instrument in determining the presence of particular states or clinical syndromes, whilst the MCMI is better suited to providing information about the more stable personality patterns (i.e.: traits) as well as the level of personality disorder or organization.

Nevertheless, notwithstanding these difficulties, it appears that diverse studies, using different measurement approaches and different research methodologies are finding that a relatively small set of trait-clusters describes a significant proportion of the alcoholic population.

At the same time, it is evident that dependency has emerged as a significant feature

in the presentation of alcoholism. Yet extensive exploration of the nature of the relationship between dependency and alcoholism is noticeably lacking.

Donat *et al.*, (1992), using the MCMI, investigated the differences between alcoholics and cocaine abusers. They found that observed differences appeared to be more a function of race, age and gender differences, than of the particular drug of abuse. This study did not directly explore gender differences among alcoholics, but did note differences between men and women, alcohol and cocaine abusers. They found that "females are more likely to report reactive emotional distress, whereas males are more inclined to self-centred and impulsive (p. 102)."

This finding suggests that women alcoholics are more likely to experience affective pain as a consequence of difficult emotional circumstances. Whilst this does not *directly* point to issues of dependency, it is not incongruent with this possibility.

One investigation which explicitly assessed the presence of interpersonal dependency, depression and self-esteem among alcoholic populations concluded that:

> Interpersonal dependency can be regarded as an alcoholic personality trait... Our results show that interpersonal dependency is a significant feature in alcoholics independent of depression, whereas lowered self-esteem might be a function of depressive state (Vrasti, Enasescu, Poelinca & Apostol, 1988, p. 450).

By focusing more explicitly on dependency, this investigation provides clear support for the conclusion that interpersonal dependency is frequently evident among alcoholics. However, this study did not attempt to systematically explore the nature of the relationship between alcoholism and dependency. Furthermore, once again, gender differences were not investigated, and no conclusions about differences in dependency between men and women alcoholics can be drawn.

To sum up, for the purposes of this study, the following conclusions are drawn from this review of research into the area of alcoholism and personality.

A substantial number of investigations have sought to identify clusters of personality traits which tend to be represented in alcoholic populations. These studies use popular personality trait inventories, such as the MMPI and the MCMI, as well as other measurement instruments.

Whilst the findings of the various studies are not completely congruent, significant overlap is evident, and a number of commonalities can be found. All the studies reviewed here conclude that no single feature distinguishes the personality of the alcoholic from the non-alcoholic. Rather, these investigations have found that the majority of alcoholics tend to cluster around a limited set of personality profiles. Each of these profiles includes a fairly complex cluster of personality traits.

Interpersonal dependency and alcoholism have not been the clear focus of much research. Yet dependency has consistently emerged as one of the factors that is commonly associated with alcoholism.

At the same time, these studies have consistently failed to explore how different subgroups, as defined by membership to a particular population - whether it be age, culture, race, religion, or gender - might be differently represented in the different trait-clusters or profiles. Of particular importance, as has been demonstrated, none of the above studies sought to investigate the possibility that men and women might tend to cluster disproportionately around different profiles. Very few studies have sought to determine the nature of differences between various subtypes within the alcoholic population. Race, gender and age differences have been investigated, but work in this area is less extensive.

Graham and Strenger (1988) suggested that "the research reviewed suggests that

future MMPI studies with alcoholics should focus on differences among them rather than emphasise similarities (p. 203)."

Furthermore, despite the finding of Donat *et al.* (1991) that dependency is a relatively prominent feature in the presentation of alcoholism, remarkably little research has specifically explored the nature of the correlation between dependency and alcoholism.

Based on these conclusions, this review finds that there is both the need, and the opportunity, for a study to address itself directly at these gaps, by exploring gender differences in interpersonal dependency among alcoholics. The next section explores possible explanations of why there may be gender differences in dependency.

2.2 Social construction of gender: Gender, power & interpersonal relations.

This section considers why gender differences in dependency may exist, and reviews related research. Important differences in the domestic and occupational roles filled by men and women are described. Possible reasons for the sexual division of labour and the social construction of gender are summarized. Dynamics by which gender roles are constructed by society are explored. Ways in which gender roles might be manifest in personality are considered. Finally, empirical evidence on gender differences in dependency is reviewed.

> Whether we like it or not, social relations continue to be structured by sex (Sayers, 1986, p. 26).

Human society is a seemingly infinitely complex organisation, and there are a multitude of facets and variables in terms of which it can be understood. One approach has been to investigate differences in access to social power and wealth, as determined by group membership. Such groups have been seen to consist in, *inter alia*, nationality, class, affluence, race, religious affiliation and gender. This study

concerns itself with the last of these.

Gender is defined by the Concise Oxford Dictionary (1991) as "the grammatical classification of nouns and related words, roughly corresponding to the two sexes ... (p. 490)." Whilst sex refers to male or female, gender refers to whether a person is a man or a woman. Oakley (1972) pointed out that since gender includes a rich web of socially constructed associations, sex and gender are different concepts. Gender adds to one's sex a set of meanings which inject a social context into the concept of woman and man. The associations and meanings arising out of gender are not necessarily intrinsic to the set of imperatives associated with being female or male.

The current investigation is based on the premise, described by Oakley (1972), that men-as-a-group and women-as-a-group are subjected to categorically different forms of social influence, directly as a consequence of their membership to either the female or male sex. As a result of these differences in social influence, Walby (1990) observed that each group has tended to occupy different roles, and to fulfil different functions, within society.

One important aspect to this dynamic, notes Davis (1991), is that, as a consequence of the different roles, each group has a significantly different level of access to social power. These differences have been widely researched and brought to social consciousness by a range of social theorists. Authors who concern themselves with these dynamics and their consequences have come to be known as feminists.

Within the feminist movement, a diverse range of approaches have explored and highlighted a range of dynamics intrinsic to the sexual division of labour. Tong (1989) suggested that the various approaches can be categorised broadly into liberal, radical, Marxist and post-modernist schools. These various approaches have sought to locate and define the specific mechanisms of the sexual division of labour, with a

view to raising these dynamics into social awareness, so that they can be eliminated.

Phillips (1992) reflected that a lack of equality in access to social power that is based upon socially constructed stereotypes constitutes discrimination. This conflicts with the premise that all individuals have the right to fulfil the various roles within society based upon their individual capabilities, not upon social stereotypes based on biological sex or any other prejudice.

It is contended by various authors that women do not have the same access to social power and wealth as men, but rather that, across a broad range of measures, women occupy a subordinate position to men. Evidence supporting this view is found in a number of domains. With regard to paid employment, on average, women earn less than men, engage in less paid work than men, and hold positions with less authority over, and responsibility for, people, resources and output than men (McDowell, 1992; Walby, 1990). Epstein (1981) and Sanzone (1981) have demonstrated that men hold the overwhelming majority of the controlling positions within governmental and political structures. Research has revealed similar findings for industry (Finkelstein, 1981, academia (Sanzone, 1981), and within influential global bodies such as the United Nations (Thom, 1981).

Since women have less economic, organizational, political and religious power than men, they are subordinate to men. Phillips (1992) and Walby (1990) assert that evidence verifies the hypothesis that men-as-a-group dominate women-as-a-group. Inevitably, questions arise over how this situation has arisen, and how it is sustained. Phillips (1992) and Walby (1990) noted that within the radical feminist school, it is held that women are intentionally subjugated by men. This social dynamic, in which men dominate women for their own benefit, has been termed 'Patriarchy' (Phillips, 1992; Walby, 1990).

Patriarchy, it is asserted, is maintained by the operation of oppressive mechanisms

at many levels, in a proliferation of social interactions (Phillips, 1992; Griffen, 1991; Tong, 1989; Walby, 1990). These authors noted that it is generally held that there is no single dynamic which can comprehensively explain the nature and process of patriarchy. Men, as a group, use various processes to gain and maintain their super-ordinate, controlling position. Phillips (1992), Tong (1989) and Walby (1990) observed that these mechanisms of patriarchal oppression have become woven into the fabric of society.

Oppressive dynamics are held to have operated at both overt and covert levels. Walby (1990) observed that historically, overt gender discrimination included legal restriction of rights, such as the withholding of the right to democratic political vote from women, restrictive employment practices which prevented women from taking on certain kinds of work, and unequal pay scales and remuneration benefits for men and women. Since discrimination has become increasingly confronted, in a world in which individual human rights are coming to be increasingly valued, exposure of overt discriminatory practices is gradually leading to their elimination.

However, as yet, the elimination of overt gender discrimination has not resulted in pervasive equality between women and men. A spectrum of subtle, yet pervasive, gender stereotypes and gender discriminatory attitudes continue to operate in our social mores. Walby (1990) observed that since covert gender discrimination practices subsist more in innuendo than in explicit form, they are more difficult to detect, assess and expose.

Tong (1989) and Walby (1990) contended that less overt areas of social activity that are recognized sites through which patriarchal power is perpetuated include intimate heterosexual relationships, sexuality, child rearing, domestic violence, rape, the sexual division of labour, capitalist modes of production and language. Within the group referred to as the radical feminists, Walby (1990) observed that various authors contend that all of these sites are influenced by, or are consequent to, a

process they describe as the social construction of gender.

The social construction of gender refers to the theory that within society are processes which create the perception that men and women have different characteristics, and different strengths and weaknesses. These imposed differences purportedly make women and men better suited to fulfil different roles in society. Walby (1990) observed that as a direct consequence of the social imposition of these roles, women and men have the different levels of access to resources and social power that is evidenced above. The social construction of gender is, therefore, a key site in the perpetuation of patriarchal power.

Exploring the nature of the differences in the social roles fulfilled by men and women, Stiver (1984) suggested that "while men may have been said to manage better at work, women seem more expert about love (p. 1)."

This comment refers to the observation that men tend to fill positions which command control over resources in political (Epstein, 1981; Thom, 1981), economic (Finkelstein, 1981) and academic (Sanzone, 1981) domains, whilst women, on the other hand, tend to pursue occupational positions such as nursing and teaching, and fill the domestic role of homemaker and child-rearer (Griffen, 1991; Rainone & Moulton, 1982; Walby, 1990).

An important question is how this situation has arisen. The view held by various radical feminists is that the uneven division of labour along sexual lines is imposed in a patriarchal system, through the establishment of gender stereotypes - i.e.: gender differentiation. Moi (1989) described the basic process as follows:

> Patriarchal oppression consists of imposing certain social standards of femininity on all biological women, in order precisely to make us believe that the chosen standards of 'femininity' are natural. Thus a woman who refuses to conform can be labelled both *unfeminine* and

> *unnatural*. It is in the patriarchal interests that these two terms (femininity and femaleness) stay thoroughly confused (p. 122-3).

Gender differentiation thus refers to the process by which specific characteristics, particularly 'masculine' and 'feminine' attributes, are allocated purely on the basis of biological sex (*ibid.*). Masculinity is held to be characterised by assertiveness or aggressiveness, competitiveness, strength of will and ambition. Femininity is held to be characterised by gentleness, empathy, tenderness, compassion, sensitivity and unselfishness (*ibid.*).

The implication is that since men are considered to be masculine, they are better suited to the world of work. Women, on the other hand, are better suited to domesticity and roles which require nurturing qualities, because of their femininity (*ibid.*).

This view is not widely accepted as ct. Sources of gender differentiation are contested by theorists from diverse perspectives. At one end of the spectrum, biological determinists take the view that personality differences are deter. ined by biological sex, and that this fact has psychological consequences. According to this view, the sexual division of labour is u'.imately attributable to fundamental differences between males and females in terms of their genetic, biological and endocrinal constitution. Males are held to be more aggressive and competitive because of particular endocrinal profiles which stimulate more aggressive behaviour. Consequently, they are held to be better suited to the roles requiring competitiveness and aggression. Females, on the other hand, have endocrinal profiles which are associated with less aggressive, more emotional states. Hence, women are held to be better suited to the more nurturant roles (Siltanen, 1986).

At the other end of the spectrum, psychosocial perspectives propose that at birth, each individual has a latent set of potentialities. Some of these potentialities have

masculine associations and others, feminine associations. Through the sex role socialisation processes that occur throughout development, in males, masculine traits are encouraged and feminine traits discouraged, whilst with females, feminine traits are encouraged and masculine traits discouraged (Bornstein, 1992). He described the nature of the influences as follows:

> Boys are generally discouraged from expressing openly dependent feelings and needs, yet girls have historically been encouraged to exhibit these feelings, because passive, dependent behaviour has traditionally been regarded as consonant with the female (i.e.: feminine) sex role (*ibid.*, p. 8).

It seems unlikely that the genesis of gender differences and the division of labour by gender is attributable to any single factor. More probable is that such differences are the consequence of a complex interweaving of polyfactorial influences, including biological, sociological and psychological factors.

Notwithstanding the debate over the genesis of gender differences, evidence supports two pertinent hypotheses. Firstly, women tend to fill roles in which empathy and nurturing are valued, and which have a strong relationship-with-another orientation, with interpersonal affiliation and interdependence as key features. Secondly, men tend to fill positions in which competition and aggression are valued, and in which power and control over-others are the key features (Abbot & Wallace, 1991; Griffen, 1991; Komter, 1991; Rainine & Moulton, 1982; Siltanen, 1986; Walby, 1990).

Up to this point, the focus of the discussion has been on the general roles filled by men and women. Taking the discussion a step further, masculinity is associated with behaviours which involve competitiveness and interpersonal control, whilst feminity is associated with interpersonal affiliation and interdependence. If, as has been explored, gender constructions around the concept of 'woman' involve a greater

orientation towards interpersonal affiliation and nurturing relationships than constructions around the concept of 'man', then it follows that higher levels of interpersonal dependency are a greater part of the construction of the notion of 'woman' than of 'man'. This predicts that women will tend to manifest higher levels of dependency than men.

The validity of this hypothesis has been the subject of considerable empirical research. It appears that this belief has been repeatedly supported by empirical research. Bornstein, Manning, Krukonis, Rossner and Mastrosimone (1993) stated:

> One conclusion that has consistently emerged from clinical and experimental studies of dependency is that women show higher levels of dependency than men. ... In fact, the belief that women are more dependent than men is so pervasive in western society that it would be difficult to find a clinician, researcher, or layperson who does not ascribe to this assumption (p. 170).

Moreover, Bornstein (1992) found that objective dependency measures have demonstrated similar gender differences in dependency with American, Canadian, British, German, Dutch, Indian, Israeli and Japanese subjects. This suggests that dependency is a cross-cultural phenomenon that is found to exist across a wide range of cultures.

In an extensive review of studies investigating gender differences in dependency, Bornstein (1992) concluded: "When self-report measures of dependency are used, the vast majority of studies ... have found higher levels of dependency in women than in men (p. 8)."

Exploring this issue of gender differences further, Bornstein *et al.* (1993) compared objective and projective measures of dependency. They found that whilst objective, self-report measures indicate that women have higher levels of dependency than men,

projective measures indicate that there are no significant differences in the dependency needs between the two groups. They attributed this difference to a response bias on the part of the subjects. Their conclusion was that the underlying dependency needs for men and women are similar. However, since men are discouraged from expressing or articulating these needs, such needs are more repressed, less available, and therefore unconsciously denied in the completion of objective, self-report inventories.

By contrast, when men complete projective measures of dependency, the dependent nature of the information they are yielding about themselves is not obvious to them, and they are consequently less able to unconsciously 'fake good'. With women, since dependent needs are valued and encouraged as being appropriately feminine, they can be more readily 'owned' and integrated into consciousness, and then revealed in self-report questionnaires.

The measured differences in dependency are due to sex-role socialization processes inherent in the social construction of gender, rather than to latent or intrinsic differences between the sexes. These findings provide support for the hypothesis set out above, - i.e.: that gender differences are the consequence of sex-role socialisation processes intrinsic to the social construction of gender (Phillips, 1992; Tong, 1989, Walby, 1990).

To conclude, there is evidence to support the view that the construction of gender is a social process which gives rise to gender differentiation and the subordination of women in a patriarchal social system. Gender construction associates qualities of interpersonal affiliation and dependency with femininity, and values these behaviours in women. It associates power, competition and autonomy with the concept of masculinity, and values these in men. The goal of the processes which perpetuate the social construction of gender is the maintenance of patriarchal domination of women. The social imposition of masculinity and femininity, on men and women respectively,

predicts that women manifest higher levels of interpersonal dependency than men. Evidence supports the hypothesis that although overt, expressed dependency is higher for women than for men, both men and women have similar levels of underlying dependency needs. These findings are consistent with the notion that dependency is the consequence of the social construction of gender rather than of biological imperatives.

Having explored the relationship between gender and dependency, the n ip is to examine more closely the character or nature of dependency.

2.3 On conceptualizing dependency

This section examines the meaning of dependency. First, evidence for the existence of dependency as a distinct personality trait is reviewed. Positive and negative connotations of dependency are considered. Finally, some of the potentially negative consequences of dependency are explored.

Dependency, as it relates to personality and behaviour, has been the subject of hypothesis and research since the beginnings of modern psychology. An important task, within the context of this study, is to establish what the concept of dependency means.

Chaplin (1985), in his Dictionary of Psychology, defines dependency as "1. A condition in which one individual must rely upon another, or upon society, for his maintenance; 2. The tendency to rely upon others in making decisions; lack of self reliance (p. 122)." He describes the dependent personality as "a personality pattern characterized by a lack of independence, passivity, low self-confidence, and a tendency to submit to others (p.122)." The essential feature in these definitions of dependence is the reliance on another for support.

Various researchers have explored and debated the concept, in order to develop

more comprehensive understandings of the nature and characteristics of dependency. Typically this has involved analysing dependence in terms of the critical features that define and constitute the concept.

Birtchnell (1991) proposed that the trait dependence has two primary clusters of attributes or features. These he termed 'negative closeness' and 'negative lowerness', which he described as follows.

The first component, 'negative closeness', refers to a clear and distinct need for close involvement with others, together with a fear of losing any affiliation. Negative closeness is expressed as a strong need for the acceptance by, and support of, others. It predicts a high level of behaviours which have affiliation with others as their goal, such as closeness seeking and care eliciting, and a high level of anxiety or fear at the prospect of rejection or abandonment, and marked emotional distress in the wake of actual rejection or loss of significant relationships.

The second component, 'negative lowerness', connotes those behaviours which have to do with a low status, and which demonstrate a tendency towards self-abasement, or a positioning of the self as subordinate to other individuals. Negative lowerness reflects a poor self-esteem, and predicts behaviours such as being inclined to look up to others, approval seeking, self-judging, being easily influenced by others, perceiving the self as lacking competence and a low level of self-confidence.

A clear feature of these attributes are the negative meanings and associations that are attributed to the trait of dependency. Bornstein (1992) noted that generally in the field of research on dependence, this trait has come to be perceived only in terms of its negative attributes. He suggests that it has come to be perceived as immature, regressive, weak and indicative of a poor ego-strength.

Stiver (1984) linked this tendency to perceive dependency only in terms of its

negative aspects and connotations as being part of the process of patriarchy, and one of the sites of the subordination of women. Dependency is first construed to be a feminine characteristic, which is then part of the social construction of the concept of woman. Then it has acquired pejorative connotations. Hence to be a woman is to have the negative attributes intrinsic to being dependent.

In his extensive review of the literature on the meanings and understandings of the concept of dependency, Bornstein (1992) proposed that the trait can best be understood in terms of three groups of social behaviours, which he described as follows.

Firstly, it is hypothesised that the dependant person is motivated to please other people in order to obtain nurturance and support. This predicts that people will tend to be interpersonally yielding, suggestible and compliant. This is similar to Birtchnell's (1991) concept of negative lowerness, but avoids defining it in ways that are necessarily pejorative.

Secondly, he deduced that since it is hypothesized that dependent people feel the need for the support and guidance of others, their behaviour will tend to include elevated rates of help seeking behaviours across a variety of settings, they will be sensitive to interpersonal cues, and will tend to seek affiliation with others. Again, the parallel with Birtchnell's (1991) ideas, particularly his notion of negative closeness, is evident, and again Bornstein's (1992) avoids the view that such behaviours have to be construed in negative terms.

Finally, he suggested that since dependent people are motivated to please others, and that they need the support of others, they will tend to experience relatively higher levels of anxiety when required to function independently, and that they will be more prone to anxiety when being evaluated by figures of authority. This feature is not overtly addressed by Birtchnell (1991). The corollary of Birtchnell's (*ibid.*) idea of

negative closeness is that highly dependent people have a strong need for the nurturance and support of others and are, therefore, likely to seek to avoid being alone. Bornstein's (1992) inclusion of this aspect of dependency enriches our understanding of dependency, since it makes overt the observation that individuals with high levels of dependency experience anxiety, both at the prospect of having to function independently, and at the prospect of being evaluated by anyone in position of authority.

Bornstein (1992) found that, to varying degrees, and with certain caveats, a vast body of empirical research supports all of these hypotheses. However, he noted that several of the above features contradict the established notion that dependent traits are all passive and negative, and suggested that several features are pro-social, proactive and positive aspects to personality. He concluded by proposing:

> One central goal underlies much of the dependent person's behaviour: obtaining and maintaining nurturant, supportive relationships. This core motivation of the dependant person is reflected in a wide variety of situations and settings (*ibid.*, p. 18).

Of significance for the present study is the central importance that the dependent personality gives to being nurtured and supported by others.

Stiver (1984) proposed that dependency be defined as:

> A process of counting on other people to provide help in coping physically and emotionally with the experiences and tasks encountered in the world, when one has not sufficient skill, confidence, energy and/or time (p. 10).

Expanding on the issue of emotional support she explained that dependence involves the need that people have, to have their feelings and perceptions about issues in their lives affirmed and validated by others. She emphasised that dependency is not static, but that it is a dynamic process which evolves over time, in the process of growth.

She states:

> This notion of dependency would allow for experiencing one's self as being enhanced and empowered through the very process of counting on others for help. In these terms, dependency would be seen as normal and growth-promoting (*ibid.*, p. 10).

Where the process becomes stuck and the dependence on others is used to avoid growth, dependence ceases to be a dynamic and functional component of human interaction, but becomes maladaptive and pathological. In her words:

> When, however, turning to others for help maintains one in a more static place, or worse, pulls one back to a position in which one feels awful about oneself and/or desperate about getting anything from the other, pathological expressions of dependency emerge (*ibid.*, p. 10).

This raises the conceptual issue of the differences between normal and pathological expressions of behaviour. Two factors determine whether dependent behaviour tends towards the functional or the maladaptive - the intensity and the flexibility of behaviour.

Strack (1987) noted that there is a trend towards conceptualizing the so-called personality disorders as categorically different from normal personality. He investigated this, and concluded that traits which are typically construed as disordered in mental health settings, exist in a normal population in much the same form, and that differences are of degree, not of nature. Hence, he suggests, normality and abnormality should be understood as the opposite positions defining the two ends of a continuum, not as conceptually distinct categories. He found that there were significant individual differences in the intensity of a variety of behaviours.

Since dependent traits are present in the normal population in the same form, and with the same character, as in pathological populations, it is part of the range of

normal human experience. However, one way in which difficulties might arise is when dependent traits become markedly elevated. It is these relatively more extreme expressions of dependency that are more likely to be dysfunctional and maladaptive.

The second issue relates to the concept of the flexibility of behaviour. Where behaviour is appropriate to the demands of the situation, and it can be varied with changes in the demands of the situation, it is adaptive and regarded as healthy, functional behaviour.

Problems arise when dependent behaviour becomes a rigid, habitual and pervasive way of interacting with others. This lack of behavioural flexibility results in the persistent display of dependent behaviours when they are no longer situationally appropriate. Such lack of adaptability to new situations is the second aspect of dysfunctional dependency. Where dependency has become pervasive and inflexible, it is more likely to be perceived as personality disordered or pathological.

What are the consequences of elevated levels of dependency, where dependent behaviour is inflexible, less appropriate and maladaptive? At this point it is worth recalling that Bornstein (1992) reduced dependency to the following three essential characteristics: interpersonal compliance, help and affiliation seeking, and anxiety at having to function autonomously. Where such behaviours are pervasive, the clinical or pathological manifestations become relevant.

To understand these clinical manifestations of dependency, it is necessary to explore the clinical understandings of how dependency can become pathological. Clinically, the picture manifest at these levels is described in the DSM-IV (American Psychiatric Association, 1994) which defines the dependent personality disorder as:

> A pervasive and excessive need to be taken care of, that leads to submissive and clinging behaviour and fears of separation, beginning by early adulthood and present in a variety of contexts (*ibid.* p. 668).

The DSM-IV (*ibid.*, 1994) stipulates that for a person to be categorised on Axis-II as having a dependent personality disorder, they should meet five or more of the following criteria:

(1) has difficulty making everyday decisions without an excessive amount of advice or reassurance from others

(2) needs others to assume responsibility for most major areas of his or her life

(3) has difficulty expressing disagreement with others because of fear of loss of support or approval. Note: Do not include realistic fears of retribution.

(4) has difficulty initiating projects or doing things on his or her own (because of a lack of self-confidence in judgment or abilities rather than a lack of motivation or energy)

(5) goes to excessive lengths to obtain nurturance and support from others, to the point of volunteering to do things that are unpleasant

(6) feels uncomfortable or helpless when alone because of exaggerated fears of being unable to care for himself or herself

(7) urgently seeks another relationship as a source of care and support when a close relationship ends

(8) is unrealistically preoccupied with fears of being left to take care of himself or herself

(*ibid.*, p. 668-669).

Any individual who displays relatively intense or pervasive dependency traits may not meet five of the above criteria. Consequently, he or she will not be deemed to have a disordered personality. However, if that individual's dependent traits are elevated, then these criteria provide an indication of the ways that these traits may be experienced, and are likely to manifest in behaviour.

Both from the above criteria and from the points raised by Birtchnell (1991) and Bornstein (1992) above, it is evident that the dependent individual experiences anxiety about making decisions autonomously, discomfort at having to function independently, anxiety in dealing with conflict between his or her needs and the needs of others, fear of loss of support and disapproval, fear of rejection, feelings of helplessness and fear at having to take care of him or herself, poor self-esteem and a fear at the prospect of being evaluated by authority figures. Anxiety, helplessness, fear and a negative sense of self are part of the emotional realm of the dependent individual. Since these are all negative emotional experiences, it can be deduced that the dependent individual is prone to emotional pain and suffering.

Hirschfeld, Shea and Weise (1991), in a review of the criteria for the diagnosis of dependent personality disorder, considered the dependent personality disordered person to have a number of distinct features. He or she lacks self-confidence and confidence in his or her own judgement and abilities. He or she experiences fear of rejection, and an overpowering need for support and nurturing. He or she is unable to express his or her own opinions for fear of anger or loss of support from others. Finally, he or she experiences exaggerated fears of being alone, because he or she feels unable to function autonomously.

From this it is evident that individuals with elevated levels of dependency are likely to have difficulties in relationships, and may get into relationships in which they are unable to express their needs, because of fear of damaging the relationship and losing the care they receive from it.

Kaplan and Sadock (1991) noted that people with dependent personality disorder may remain in intimate relationships with abusive, unfaithful or alcoholic spouses because of their need for affiliation, or to be attached, and their fear of the prospect of having to function autonomously. Hirschfeld, Shea and Weise (1991) added that such individuals are often indiscriminate in selecting new partners for support and

nurturance. Hence these individuals may often end up either remaining in abusive relationships, or they may move through series of abusive relationships.

In summary, the hallmarks of more pathological or elevated dependency traits include difficulties in relationships, including stuck, disappointing, abusive and failed relationships; a low self-esteem; high levels of neuroticism, fear and anxiety; and poor self-confidence, including poor confidence in one's own capacity for judgement, and in one's own abilities.

From this, it is evident that elevated levels of dependency are, in themselves, a source of subjective distress, and can cause impairment in interpersonal functioning. The dependent individual experiences powerful dysphoric feelings and painful emotional states, which may sometimes be felt to be overwhelming.

Supporting this is the observation that dependency is linked to depression. The possibility that dependency and depression are correlated has been extensively investigated. Of particular interest is the direction of the relationship. In his review of a number of studies which have sought to uncover the direction of the relationship, Bornstein (1992) concluded that most studies suggest that dependency precedes, and is implicated in, the aetiology of some forms of depressio· He suggested that an interaction between the internal state of dependency and the external stimulus of negative interpersonal events predicts depression; i.e.: when a dependent person encounters situations which trigger his or her own particular a xieties and fears, this results in depression.

Overholser (1991) found that depression correlated with moderate as well as high levels of dependency. He concluded that "moderate levels of dependency can have important effects on depressive symptomology (*ibid.*, p. 242)." This supports the hypothesis that it is not necessary for dependent traits to be elevated to the point at which they justify classification as a personality disorder, for there to be emotionally

painful consequences to that dependency.

The final point, in this discussion on dependency, is that since women are more likely to consciously experience and express their dependency needs through their behaviour, it follows that they are more vulnerable to experiencing the negative emotional states or painful affect that dependency can cause. If, as has been demonstrated, there is the possibility that depression may be underscored by dependency, it is likely, too, that women will also be more vulnerable to depression. This has been extensively substantiated by research. Kaplan and Sadock (1991) found that:

> An almost universal observation, independent of country, is the approximately twofold greater prevalence of unipolar depression in women than in men (p. 364).

To conclude, dependency is understood to involve physical and emotional reliance on others. When it is dynamic and growth enhancing, it is a functional and healthy aspect of human behaviour. Should elevated or pervasive dependency traits constitute a relatively enduring way of responding to the world, such traits or behaviours are no longer growth oriented, but are dysfunctional. These are likely to have a pathogenic influence on personal functioning. Women are more vulnerable to high levels of dependency, and are, therefore, more likely to experience the painful affective states associated with dependency.

The next section looks at what some of the effects of alcohol consumption are, before going on to explore why it may be that people with high levels of dependency might be prone to the abuse of alcohol.

2.4 Alcohol abuse: a flight into oblivion.

This section explores the effects of the consumption of alcohol on affective, cognitive and interpersonal functioning.

> When asked why they drink excessively, alcoholics occasionally attribute their drinking to a particular mood such as depression or anxiety or situational problems. They sometimes describe an overpowering 'need' to drink, variously described as a craving or compulsion. Just as often, however, the alcoholic is unable to give a plausible explanation of his or her excessive drinking (Goodwin, 1992, p. 145).

Evidence suggests that alcoholics do not know why they drink excessively. The reasons for their behaviour do not appear to be available to consciousness. In an effort to discover why people drink heavily, scientific inquiry has sought to understand the physiological and psychological effects of alcohol consumption, both in terms of its short and long term effects.

Long term consequences include brain lesions (Tabakoff & Hoffman, 1992) and impairment to domestic, social and occupational functioning (Goodwin, 1992). Whilst such consequences may be being incurred by the alcoholic population from which the alcoholic sample for this study was drawn, they do not form part of the current hypothesis, and are not considered here. It is the short term effects that are germane to the development of the hypothesis under investigation, and which are reviewed in the present section.

Research into the short term effects of alcohol is extensive. Josephs and Steele (1990) classified the research as falling into the following two categories: (i) cognitive and motor performance, and (ii) affective and social functioning. They find that research into the former has produced highly consistent results, indicating that

alcohol has a consistent and predictable effect. From the evidence they reviewed, they concluded that it has been repeatedly demonstrated that alcohol consistently impairs cognitive and motor functioning, and that the slowing effect it has on these processes is in direct proportion to the quantity of alcohol consumed.

By contrast, they found that research into the effect of alcohol on affective and social functioning has generated a great deal of seemingly contradictory evidence (*Ibid.*, 1990). The primary confusion is around whether the psychological effects are positive or negative. In 1956, John J. Conger (in Josephs & Steele, 1990) introduced an idea, called the Tension Reduction Hypothesis, which has set the scene for, and has guided, an influential body of research in the subsequent study of the reasons underlying alcohol abuse and dependency.

Conger (*ibid.*) suggested simply that alcohol reduces psychological tension. Thus, when a person who was experiencing stress consumed alcohol, that inner experience of stress was reduced. This experience of stress reduction serves as a positive reinforcer to drinking, tempting people under stress to drink and, over time, to become dependent on alcohol for its tension reducing properties.

Subsequent research sought to test this hypothesis by seeking to discover whether alcohol could be demonstrated to have an anxiolytic action. Findings have been markedly inconsistent. It has been demonstrated that alcohol can decrease anxiety (Hull, Levenson & Young, 1981; Levenson, Sher, Grossman, Newman & Newlin, 1980; Polivy, Schueneman & Carlson, 1976; Sher & Levenson, 1982), that it can increase anxiety (Abrams & Wilson, 1979; Keane & Lisman, 1980), and that sometimes it can have no effect upon anxiety (Kilpatrick, Sutker, Best, & Allain, 1980, in Steel & Josephs, 1988).

Steele and Josephs (1988), and Josephs and Steele (1990(a) & 1990(b)) suggested that the apparent inconsistency can be reconciled by situating the effect of alcohol

in the processes of perception and cognition. In their Attention-Allocation model of alcohol's effect on psychological stress, they hypothesized that alcohol causes a constriction or limiting of the individual's capacity to process cognitive information. They called this effect 'psychological myopia', since it causes the person to become 'short-sighted', i.e.: the person can no longer 'see' or perceive all the factors involved, but develops a narrowed field of psychological perception.

As people become increasingly intoxicated, they also become proportionately less capable of processing a diversity of information, and consciousness becomes focused on a narrower set of cognitive phenomena. Steele and Josephs (1988), and Josephs and Steele (1990(a) 1990(b)) suggested that this can have either a positive or negative effect on social behaviour, self-evaluations, anxiety and affect. They suggested that the direction of the effect depends upon the intensity or extent of the demands being made upon the cognitive processing capacity of the individual. The demands can either be internally located or they can be situated in the external environment.

This hypothesis is born out by work done by Tabakoff and Hoffman (1992), who investigated the neurobiological effects of alcohol. They found that:

> There is general agreement that ethanol impairs cognitive processes, both acutely, during intoxication, and after long term chronic ingestion. The long term effects of ethanol use and abuse on memory are often attributable to brain lesions and are not the subject of this review. ... The acute effects of ethanol on learning and memory are more subtle and may result from an initially reversible influence of ethanol on the function of specific neurotransmitter systems that contribute to various aspects of learning and/or memory processes (*ibid.*, p. 165).

If a person is feeling anxious about a stressor, and he or she consumes alcohol, his or her thoughts become increasingly focused on that stressor. Access to various coping resources is reduced, and anxiety is increased.

By contrast, if the same person is experiencing anxiety about a stressor, he or she becomes intoxicated, and he or she is preoccupied with any attention-demanding activity, his or her attention becomes increasingly focused on that distracting activity. The capacity to simultaneously process diverse cognitive information - including ruminations about anxiety provoking stimuli - is diminished, and anxiety is consequently moderated.

Steele and Josephs (1988), and Josephs and Steele (1990(a) & 1990(b)) tested this hypothesis with a variety of experiments, and found that through an understanding of the extent and nature of the demands, it is possible to consistently predict whether the effect of alcohol intoxication on affect is going to be positive or negative.

Evidence therefore supports the hypothesis that alcohol reduces an individual's capacity to process cognitive information, and that alcohol, together with some form of distracting activity, consistently reduces tension, stress or anxiety. These findings have significant implications for the current investigation. Consider the position of an individual who has relatively strong dependency needs. As discussed above, increased dependency needs increase the risk of interpersonal problems and relationship failure. Such experiences cause marked distress.

If the concept of 'alcoholic myopia' is extrapolated to this situation, when the distressed individual consumes alcohol, his or her capacity for processing information is diminished. If this person dwells on the failure, he or she is likely to become increasingly depressed. If, however, the person engages in any activity which makes demands on his or her their attention, his or her experience of the distress will be diminished. The extent to which it is diminished would be proportional to the extent

of his or her inebriation and the extent to which the distracting activity makes use of the remaining cognitive processing capacity.

Josephs and Steele (1990 (a) & (b)) suggested that the distracting activity need not be particularly demanding, but can be as elementary as having a conversation or watching television. Thus, through using alcohol and engaging in a simple, everyday-type task, the distressed individual can forget about his or her worries.

This relates to the notion of self-medication. It suggests that individuals whose dependent traits have resulted in interpersonal difficulties which have caused them distress, may abuse alcohol, since it reduces their experience of the distress. The self-medication hypothesis of substance abuse was formulated by Khantzian (1985). He hypothesised that abuse of psychoactive substances should be understood as an act of self-medication. His suggestion was that many substance dependent individuals choose particular substances to obtain relief from dysphoric feelings or other painful affective states.

Khantzian (1985) further argued that substance dependent individuals are predisposed to addiction to particular substances. This vulnerability is based on an interaction between their own specific psychopathology and the effects of those substances on that set of symptoms. He tested his self-medication hypothesis with heroine and cocaine users, and concluded:

> Addicts are attempting to medicate themselves for a range of psychiatric problems and painful emotional states. Although most such efforts at self-treatment are doomed, given the hazards and complications of long-term unstable drug use patterns, addicts discover that the short-term effects of their drugs of choice help them to cope with distressful subjective states and an external reality otherwise experienced as unmanageable or overwhelming (*ibid.*, p. 1263).

This hypothesis has been the subject of attention from various perspectives. Dilsaver (1987) noted an overlap between the pathophysiology of the affective disorders and the symptoms of substance abuse. He found evidence that the neuropharmacologies of commonly abused substances may impact directly on the neurotransmitter systems that influence mood, affect, psychomotor status and hedonic capacity.

These findings imply that affective disorder is the symptom of pathological neurological systems. Since commonly abused substances impact on these systems, it is likely that the abuse of these substances is a consequence of the pathological neurotransmitter systems. This finding is congruent with the self-medication hypothesis.

Other research has sought to replicate Khantzian's (1985) original findings. Schinka, Curtiss and Mulloy (1994) tested the self-medication hypothesis using the Personality Assessment Inventory. They found that there were significant differences in the traits displayed by different groups of drug dependent patients. However, they found that these differences were not in accordance with the self-medication hypothesis. At the same time they noted that their sample consisted almost entirely of men, and they recommended that the self-medication hypothesis should also be tested using other samples.

The present study draws on the notion of the self-medication hypothesis by suggesting that a portion of dependent people abuse alcohol because the anxiolytic effect of alcohol provides them relief from their distress.

Thus far, this review has considered how gender might be linked to dependency, and how dependency may result in interpersonal difficulty and distress. The effect of alcohol in reducing distress under particular conditions was explored, as was the way in which people in distress may use alcohol to self-medicate.

2.5 Gender, dependency and alcohol abuse.

This final section links the issues of gender, dependency, distress and the effect that alcohol has in limiting attentional capacity. In so doing, it provides the rationale for the hypothesis that women alcoholics are likely to manifest higher levels of interpersonal dependency than women non-alcoholics, men alcoholics or men non-alcoholics.

This study builds on the findings established above, that women are more vulnerable to the presentation of dependent personality traits in their behaviour and social interactions than men. This increase makes them more vulnerable to the development of the problems that dependency can generate within human relationships.

When dependency is markedly elevated or pervasive, behaviour becomes maladaptive, and dependent individuals are more vulnerable to experiencing problems in their interpersonal relationships. Interpersonal problems are particularly difficult for the dependent personality, and they result in psychological discomfort, distress or pain, including feelings of abandonment, rejection, worthlessness, loneliness, and poor self-esteem.

Alcohol constricts one's cognitive capacity to process information. If a person experiencing acute psychological distress consumes sufficient alcohol, cognitive processing capacity is reduced, and the point will be reached where immediate, externally located activity will fully utilize available cognitive processing capacity. At such a time, painful thoughts and feelings are excluded from consciousness, and the individual experiences relief from his or her distress.

Since women are more likely to manifest dependent traits, they are more vulnerable to the development of interpersonal problems, and to the distress these problems can cause. Coupled with everyday attentional demands, alcohol reduces the experience of this distress. Because of this, it is hypothesised that women are more likely to self-

medicate for this relief than men.

This leads to the hypothesis to be investigated in this study, namely, that women alcoholics manifest higher levels of dependency than women non-alcoholics and than men alcoholics and men non-alcoholics.

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CHAPTER THREE - AIMS & METHODOLOGY

This chapter describes the research design, explains the sampling method, discusses the instruments and their use, and presents the method of data analysis used in this study.

3.1 Research Hypothesis

The goal of this research project is to investigate gender differences in interpersonal dependency between alcoholics and non-alcoholics. The hypothesis it seeks to test is the following:

> **The mean level of dependency is higher among women alcoholics than among women non-alcoholics, men alcoholics and men non-alcoholics.**

Stated statistically:

U(wa) > U(wn), U(ma) & U(mn)

Where:

U(wa) = mean level of dependency for sample of alcoholic women;
U(wn) = mean level of dependency for sample of non-alcoholic women;
U(ma) = mean level of dependency for sample of alcoholic men;
U(mn) = mean level of dependency for sample of non-alcoholic men.

3.2 Research Design

The research is a correlational study which seeks to explore the extent to which gender and dependency co-vary with alcohol use. It employs a randomized, between-groups research design. The study does not attempt to establish the directionality of the relationship between dependency and alcoholism.

3.3 Subjects

Alcoholic men and women were drawn from outpatients on treatment programmes for alcohol abuse at the South African National Council on Alcoholism and Drug Dependence (SANCA). The non-alcoholics control sample was drawn from a general medical clinic, located about 2 kilometres from SANCA. Consecutive patients at both clinics were asked to participate in the research. Data was collected using the standardized procedure for administration, set out in section 3.4 below.

3.4 Procedure

Data was gathered from volunteers using the following standardized procedure. Potential subjects were approached and informed that research was being conducted into different factors affecting the use of alcohol. Each individual approached was then asked to read through a covering page (see Subject Information Sheet and Consent Form, Appendix 1a) and decide whether they would volunteer to participate in the research. Subjects indicated whether or not they were willing to do this. Volunteers were left to complete the questionnaire at their own pace, which was collected after completion.

3.5 Instruments

The questionnaire consisted of the following instruments.

(a). Subject Information Sheet and Consent Form (See Appendix 1a).
This section explained that research was being conducted, and anonymous volunteers sought. It requested participation, and provided a place for subjects to indicate their willingness to participate in the research.

(b). Biographical Data Questionnaire (See Appendix 1b).
Supplementary biographical information was requested to determine whether any of these variables influenced the covariance of alcoholism and gender. Information was requested on sex, age, race, marital status, level of education, employment status and residential area.

(c). Michigan Alcoholic Screening Test (See Appendix 1c).

The Michigan Alcoholic Screening Test (MAST) was developed to provide a relatively objective, quantifiable, structured instrument that could be easily used by both professional and non-professional users (Selzer, 1971). It consists of a 25-item, self-report questionnaire, and it takes approximately 15 minutes to complete.

Selzer (1971) reported that the MAST is both a valid and reliable instrument for the detection of alcohol abuse. He found that it is superior to a search of agency records, and that it yielded false negatives at a rate of less than 5%. Blankfield and Maritz (1990) reported that the MAST is a valid alcohol detection scale, with good test-retest reliability.

To score the test, questions are separated into three categories. The first consists of questions considered diagnostic for alcoholism. Alcoholic responses to these questions score 5 points. The second consists of questions considered indicative of alcoholism, and these are given 2 points for alcoholic responses. Alcoholic responses to the remaining questions score 1 point.

Cumulative scores for each protocol are interpreted as follows:
0 - 3 points is considered non-alcoholic.
4 points is considered as suggestive of alcoholism.
5 points or more indicates alcoholism.

This test was included to detect alcohol problems in the group that was intended to be a non-alcoholic control group. This would make it possible to determine whether it could be assumed that the sample drawn from the outpatient general medical clinic, could be used as a non-alcoholic control group.

(d). Assessment of Dependence (See Appendix 1d).

The MCMI-II seeks to provide an assessment of two broad classes of dysfunction - state and trait. It is a self-report, questionnaire-based test, containing 175 items providing the data for 20 different scales (Strack, 1990). Nine scales relate to temporary states of dysfunction, or transient symptom disorders. It also seeks to assess the presence of personality disorder. To this end it contains eight scales for the basic personality disorders, one of which is dependence, and three scales for more severe personality disorder (Birtchnell, 1991). 33 items provide the data for the Dependent scale (Millon, 1987). Testees respond to forced choice (true/false) questions.

Estimations of test-retest reliability for detection of dependence range from moderate to high, with estimations ranging from .58 to .83 (Strack, 1990). Furthermore Strack (1990) found that:

> The diagnostic efficiency of individual MCMI scales to make individual personality disorder diagnoses depends on the particular scales, with the avoidant and dependent scales most successful (p. 456).

From this it is evident that the MCMI is a useful instrument for the measurement of dependency.

Overholser and Freiheit (1994) conducted an investigation to evaluate the temporal stability, internal consistency, as well as the concurrent and predictive validity of the dependency scales from the MCMI-II. They found the internal consistency and ten week retest reliability estimates to be moderately high.

Bishop (1993) checked to see if a history of substance abuse impacted on the validity of the MCMI-II. He concluded that validity was not impaired by either a history of substance abuse or demographic characteristics.

Schinka and Borum (1993) set out to discover the level of reading ability that would be necessary for valid clinical use of several popular personality inventories, including the MCMI-II. They concluded that reading levels equivalent to a sixth grade education were necessary to cope with the level of vocabulary difficulty. Sixth grade in the USA equates to six years of education (United States Information Services, personal communication, 10 June 1996). In South Africa, six years of education equates to standard four. They concluded that the MCMI should not be administered to individuals with a level of education equal to standard four or lower.

Based on the findings above, it was concluded that the MCMI-II is an appropriate instrument for the current investigation for the following reasons:

(I). The MCMI-II is an appropriate instrument for the assessment of dependence (Birtchnell, 1991; Millon, 1987; Overholser & Freiheit, 1994; Strack, 1990).

(ii). Its validity is not compromised by a history of alcohol abuse (Bishop, 1993).

(iii). Minimum literacy requirements make it necessary for protocols submitted by subjects with a minimum level of education less than standard four to be excluded on the grounds of questionable validity (Schinka & Borum, 1993).

(iv) In addition, the MCMI-II is capable of yielding a rich body of data on other personality states and traits which will make it possible to explore other factors which may significantly vary between groups.

The MCMI-II was scored using a PC-based computer scoring programme which is based on the rules of the manual scoring system, as set out by Millon, (1987).

3.6 Treatment of Data

The MCMI yields interval data. The research hypothesis was tested using the multivariate analysis of variance and the *t*-test. All statistical calculations were computed using the PC-based Statgraphics statistical applications software package.

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CHAPTER FOUR - RESULTS

The purpose of this chapter is to present the results of the analysis of the data. Biographical data are set out. The statistical relationship between gender, alcohol group and dependency is explored.

4.1 Biographical data

The questionnaire called for a range of biographical data from each respondent. Gender, age, race, marital status, level of education and employment status data for the samples are set out below, in Tables 4.1 - 4.6 respectively. The scores for the four samples on the MAST are set out in Table 4.7.

Table 4.1 - Number of respondents by gender & alcohol group

	Valid	Invalid	Total
Women alcoholics	20	0	20
Women non-alcoholics	19	1	20
Men alcoholics	19	10	29
Men non-alcoholics	20	0	20

Table 4.2 - Age range of respondents by gender & alcohol group

	<18	18-29	30-39	40-49	50-59	60<
Alcoholic women	0	4	8	7	1	0
Alcoholic men	0	2	5	7	4	1
Non-alc women	1	11	5	2	1	1
Non-alc men	0	12	4	0	2	0

Table 4.6 - Employment status by gender & alcohol group

	Alc.		Non alc.	
Employment status	Emp.	Unemp	Emp.	Unemp
Women	13	6	17	4
Men	8	11	14	6

Table 4.7 - MAST scores by gender & alcohol group: sample size, number of scores > 4, minimum, maximum, mean & standard deviation

Group	n.	x>4	Min.	Max.	Mean	S.D.
Women alcoholic	20	20	6	47	28.4	11.3
Women non-alcoholic	19	2	0	10	1.1	2.4
Men alcoholic	19	19	17	13	31.8	11.9
Men non-alcoholic	20	1	0	16	1.5	1.8

Selzer (1971) reported that scores of five or greater are indicative of alcoholism. Based on these data, the following observations and conclusions are drawn.

Firstly, every individual in the alcoholic sample had scores greater than four. Accordingly it is concluded that this group can be described a sample of alcoholic people.

Secondly, three of the thirty nine individuals in the non-alcoholic sample had scores greater than four. Accordingly it is concluded that this group can fairly be described as a non-alcoholic sample. Based on this criterion, it is held that it is suitable for use as a non-alcoholic control group.

4.2 Analysis of differences in dependency

The research hypothesis is that women alcoholics manifest higher levels of dependency than women non-alcoholics and than men alcoholics and non-alcoholics. Stated statistically:

U(wa) > U(wn), U(ma) and U(mn).

The null and alternate hypotheses respectively are as follows:

	Ho		Ha
(I).	U(wa) > U(wn)	vs	U(wa) > U(wn)
(ii).	U(wa) > U(ma)	vs	U(wa) > U(ma)
(iii).	U(wa) > U(mn)	vs	U(wa) > U(mn)

Where:

U(wa) = mean level of dependency for sample of alcoholic women;

U(wn) = mean level of dependency for sample of non-alcoholic women;

U(ma) = mean level of dependency for sample of alcoholic men;

U(mn) = mean level of dependency for sample of non-alcoholic men.

Tables containing the complete results of the MAST scores, scores on the 24 scales of the MCMI-II and the biographical data for each subject in the four different samples are set out in Appendices 2a, 2b, 2c and 2d.

The sample size, mean and standard deviation for the dependency scores are as follows:

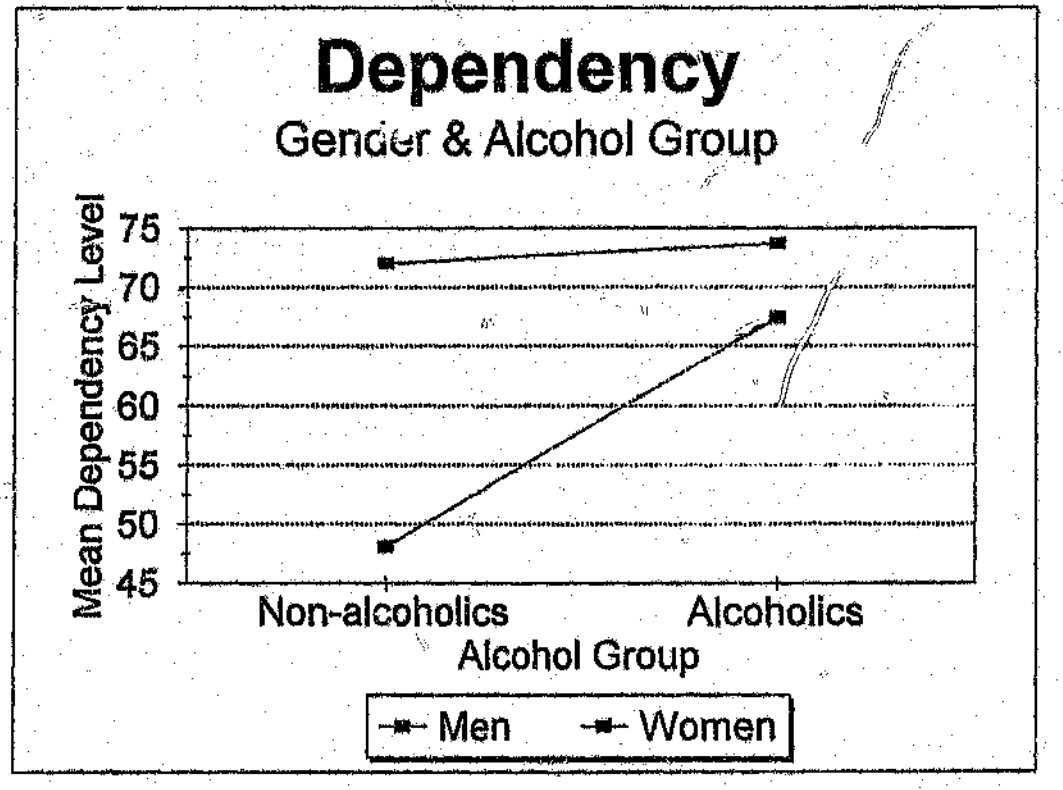
Table 4.8 - Sample size, mean score & standard deviation of dependency scores*

Group	Sample Size	Mean	S.D.
Women alcoholic	20	72	27.4
Women non-alcoholic	21	48.1	35.1
Men alcoholic	19	73.7	21.9
Men non-alcoholic	19	67.4	25.4

* Full summary statistics are set out in Appendix 3.

Mean dependency scores for gender and alcohol group are depicted graphically as follows (overleaf):

Graph 1 - **Mean dependency scores for gender and alcohol group**



4.3 Comparison of levels of dependency for the four groups

4.3.1 Multivariate analysis of variance.

The range of dependency scores for women alcoholics can be compared with that for women non-alcoholics and men alcoholics and non-alcoholics by an analysis of variance.

Statistical results of a multivariate analysis of variance of the dependency scores for the four samples is as follows:

Table 4.9 - **Multivariate analysis of variance for dependency.**

Source of variance	SS	d.f.	MS	F-ratio	Sig. lvl.
Between groups					
Gender	2907.2302	1	2907.2302	4.003	.0490
Alcohol	5679.8958	1	5678.8958	7.821	.0066
Interaction effects	1026.4873	1	1026.4873	1.414	.2382
Within groups	54464.757	75	726.1968		

These scores indicate the following:

* The sample of men display a **higher** level of dependency than the sample of women (F=4.003; p=0.0490).

* The sample of alcoholics display a **higher** level of dependency than the sample of non-alcoholics (F=7.821; p=0.0066).

* There are **no interaction effects** between gender and alcohol group on dependency (F=1.414; p=0.2382).

4.3.2 Comparison of means using the *t*-test.

Further analysis of these means, using the one tailed *t*-test, reveals the following:

* The mean level of dependency for the women alcoholics is **not greater** than that for the men alcoholics ($t = 0.68$; $p = 0.05$).

* The mean level of dependency for the women alcoholics is **greater** than that for the women non-alcoholics ($t = 2.42$; $p<0.01$).

* The mean level of dependency for the men alcoholics is **not greater** than that for the men non-alcoholics ($t = 1.4$; $p=0.08$).

* The mean level of dependency for the sample of men non-alcoholics is **greater** than that for women non-alcoholics ($t = 1.97$; $p=<0.03$).

4.4 Research conclusions.

From the above, the following conclusions are drawn.

* These data ***do not*** support the hypothesis that women alcoholics manifest higher levels of dependency than men in both the alcoholic and non-alcoholic groups.

* These data ***do*** provide support for the hypothesis that women alcoholics manifest higher levels of dependency than women non-alcoholics.

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CHAPTER FIVE - DISCUSSION

5.1 General Discussion

In reviewing the results, it is important to recall that this investigation was conceived out of the nexus of several observations. Earlier research indicated that relatively high elevations across a number of personality traits have been consistently found among alcoholics (Graham & Strenger, 1988), and that similar clusters of traits have been found among alcoholic populations (Bartsch & Hoffman, 1985; Donat, Walters & Hume, 1991; Graham & Strenger, 1988). At the same time, it was noted that investigations into the relationship between alcoholism and personality have consistently failed to focus particular attention on gender differences.

In a number of studies, dependency has emerged as a prevalent feature in the presentation of alcoholism (Bartsch & Hoffman, 1985; Donat *et al.* 1991; Graham & Strenger, 1988). Research has demonstrated that women are encouraged to give greater expression to their dependency needs than men, and are, therefore, more likely to express dependency needs in significant relationships (Abbot & Wallace, 1991; Bornstein, 1993).

Individuals with high dependency needs are more vulnerable to the potentially pathological expressions of dependency (Birtchnell, 1991; Kaplan & Sadock, 1991). Where high dependency needs result in relationship failure, this is experienced as acutely painful to the dependent individual (Birtchnell, 1991; Hirschfeld, Shea & Weise, 1991; Kaplan & Sadock, 1991).

Under certain, everyday conditions, alcohol can be demonstrated to alleviate emotional distress in the short term (Steele & Josephs, 1988, 1990(a) & 1990(b)).

The present study set out to explore a gap in contemporary research. Following the above rationale, it was hypothesised that higher levels of dependency will be observed among women alcoholics than among women non-alcoholics and men alcoholics and non-alcoholics.

The most important findings of this study are, on the one hand, that the results **do support** the hypothesis that women alcoholics are more dependent than women non-alcoholics, and, on the other hand, that they **do not support** the hypothesis that women alcoholics are more dependent than men alcoholics. These findings give rise to a number of important discussion points.

Whilst the study found that women alcoholics were more dependent than women in the non-alcoholic control group, the finding that the men in the non-alcoholic control group had similar levels of dependency to both the men alcoholics and the women alcoholics was a surprising finding. Bornstein (1992) reported that women have consistently been found to show higher levels of dependency than men, and that such findings have been replicated across a diverse range of cultural settings. In a subsequent paper, Bornstein *et al.* (1993) found that particularly when self-report measures of dependency are used - such as the one used in the present study - the majority of studies report finding higher levels of dependency among women than among men. Hence, the findings of the present study run contrary to a broad body of established findings.

The reasons for this contrary finding are not clear. However, factors arising from the sampling method, as well as from the population sampled may have had an influence on this finding.

The first factor relates to reliance on the use of volunteers in the gathering of data.

In the Literature Review it was established that dependent individuals have a strong

need for affiliation with, and acceptance by, others. They fear rejection, are approval seeking, and are easily influenced by others (Birtchnell, 1991). Furthermore, Bornstein (1992) reported that dependent individuals are motivated to please others, and are interpersonally yielding and compliant.

The corollary is that those with a low need for acceptance by others, who are not anxious about rejection, do not seek approval, are not easily influenced by others, are not motivated to please others, and are not interpersonally yielding or compliant, will, by definition, have low dependency needs.

During data collection, a number of the individuals, when asked if they would participate in the research, refused. Such refusal is consistent with the expected behaviour of individuals with low dependency needs, and inconsistent with that expected of those with high dependency needs.

Hence, it is reasoned, individuals who refused, were more likely to have lower dependency needs than those who agreed to participate. Failure to capture data from individuals who refuse to participate is likely to increase the mean level of dependency of the actual sample to above the mean for the population from which that sample was drawn.

More than ten individuals in the population of men non-alcoholics refused to participate in the research. Five or fewer individuals in each of the other groups refused. It follows, therefore, that the finding that men in the non-alcoholic control group have higher than expected levels of dependency may, at least in part, be attributable to the higher rate of refusal to participate that occurred with this group.

The second factor relates to the nature of the population from which the control sample was drawn. As described above, subjects for the non-alcoholic control group were drawn from an outpatient medical clinic. Dependency is associated with a high

level of care eliciting (Birtchnell, 1991) or help seeking behaviour (Bornstein, 1992).

Clearly, since both the alcoholic and non-alcoholic control group samples were drawn from outpatient treatment settings, all subjects were demonstrating help seeking or care eliciting behaviour. Ideally, with regard to this extraneous variable, the four groups should be matched. Yet men in the non-alcoholics control group were found to be more significantly more dependent than women drawn from the same population.

Accordingly, it is deduced that it is likely that this group were displaying a higher level of care eliciting behaviour than the women in the non-alcoholic control group. Without further research it would not be possible to establish why this might be. At the same time, it is interesting to consider possible dynamics which might explain this difference. One possibility arises out of the concept of the social construction of gender.

In the Literature Review it was explained that feminist authors, such as Moi, (1989) and Walby, (1990) have proposed that the process of the social construction of gender involves the perpetuation of the expectation that men are masculine and women, feminine. Masculinity encompasses assertive, competitive and ambitious traits, and excludes traits of gentleness, sensitivity and compassion. Bornstein (1992) observed that through the processes of sex role socialisation, expression of traits or needs associated with femininity is generally discouraged among males. He specifically related this to dependency, noting that young males are generally discouraged from the expression of dependency needs.

Based on this, it can be deduced that it is generally more congruent - and therefore easier - for women to express help-seeking or care-eliciting behaviour than men. However, for that group of men which has learned - or chosen - to express their dependency needs more freely, the expression of help-seeking behaviour is

consonant with their underlying traits, and dependent behaviour is more readily expressed. As a result, it may be that dependency was higher for female men than the women in the non-alcoholic control group, because the sample of women included individuals with a range of levels of dependency needs fairly representative of the general population. The sample of men, on the other hand included a high proportion for whom care-eliciting was a congruent behaviour, and excluded those for whom seeking medical attention for milder medical complaints was taboo, and who are, therefore, less likely to be found in outpatient medical waiting rooms.

If this above reasoning is correct, it implies that the men who present themselves at outpatient medical clinics are generally more likely to engage more freely in help seeking or care eliciting behaviour than men in the general population. However, women found in similar settings are likely to be fairly representative of women in the general population.

To summarise the discussion thus far, this study found that women alcoholics were more dependent than women non-alcoholics, but did not find that men alcoholics were more dependent than men in the non-alcoholic control group. At the same time, the research found that men in the non-alcoholic control group were more dependent than the women from the same sample. This is a surprising finding, and it runs contrary to established findings, which have consistently indicated that women tend to manifest higher levels of dependency needs than men. This higher than expected level of dependency among the men non-alcoholics may have been influenced by problems inherent in the research design. In particular, reliance on volunteers in sampling and situational features relating to the use of an outpatient medical clinic for gathering data for the control group may have resulted in a somewhat elevated level of dependency being found in this sample.

Based on this evidence, it appears that dependency may not be linked to gender, in the presentation of alcoholism. However, the evidence suggests that dependency is,

in some way, implicated in the alcoholism itself. This is certainly consonant with earlier research. Bartsch and Hoffman (1985), Craig *et al.* (1985), Donat *et al.* (1991), Graham and Strenger (1988) all found evidence for elevated levels of dependency among alcoholics. Vasti *et al.*, (1988) concluded that "interpersonal dependency can be regarded as an alcoholic personality trait (p. 450)."

An important point to note is that all of these earlier findings made no comment on gender differences. The current research, having explicitly investigated gender differences, concludes that it was unable to find evidence of gender differences in dependency in the presentation of alcoholism.

This raises questions about the nature of the relationship between dependency and alcoholism. Is dependency implicated in the aetiology of alcoholism? Is it a consequence of the alcoholism? Or is the co-occurance of the two merely incidental? All earlier findings referred to in the previous paragraph did not consider the direction of the relationship between alcoholic and dependency. The current study is a correlational one, and is also unable to shed light on the direction of the relationship between alcoholism and dependency.

The direction of this relationship is a critical issue. If dependency needs and behaviours precede the development of alcoholism, and can be demonstrated to be implicated in the aetiology of the alcoholism, then treatment interventions aimed at enabling individuals to function more independently, and to be less reliant on others for physical or emotional support, then their vulnerability to the development of alcoholism would be reduced.

On the other hand, if it can be demonstrated that alcoholism is implicated in the development of dependency, then treatment interventions can focus more on other factors demonstrably linked to the development of this disorder.

5.2 Limitations of the current study.

An important issue which emerged in the above discussion is that several methodological issues may have impacted on the findings of this study.

The first issue relates to the use of volunteers as subjects. Rosenthal (1970) found significant differences between volunteers and non-volunteers. As discussed above, reliance on volunteers carries with it the problem that it excludes data from non-volunteers, with consequent skewing of data. Since the number of refusals was highest in the population of men in the non-alcoholic control group, skewing of data for this sample is likely to have been the highest.

The second issue involves the use of medical outpatients for the control group. As already discussed, men and women in this setting may differ from the general population in different ways. Accordingly, differences found between these groups may be attributable to different characteristics of men and women who seek medical treatment rather than to differences between men and women in the general population.

The third issue relates to motivation for response bias. For the control sample, it is likely to have been apparent to volunteers that the research had nothing to do with their attendance at the clinic, and that it was unlikely to impact on their treatment there. By contrast, for the alcoholic sample, the research related directly to the issue with which they were presenting at the clinic. Accordingly, they may have been motivated, either consciously or unconsciously, to demonstrate just how desperate their plight was, to ensure the maximum help and support was obtained.

Since the group of alcoholics was found to be significantly more dependent than the non-alcoholics, this adds to the probability that their tendency would be to manifest help-seeking behaviour. If this tendency were to be true, the fact that the alcoholic population was drawn from a treatment setting may result in an exaggeration of the

measured levels of dependency.

It is also significant that the alcoholic sample was drawn from SANCA. The MAST scores obtained from this sample revealed that the level of alcohol abuse was relatively extreme. It appears that the group of alcoholics who have approached SANCA for treatment contains a high proportion of alcoholics who have had severe and recurrent problems with alcohol abuse. This population may not be fairly representative of all alcoholics, many of whom may not manifest the high levels of pathology found in this sample.

A more representative sample may not have found quite such high expressions of dependency and of other pathological personality patterns. Nevertheless, it is likely that differences would still have been found, and that these differences would have been in the same areas as those indicated by this study.

A further limitation of this study is that it employed a relatively small sample size. A total sample of eighty subjects was used. This is too small to produce sufficient data to allow a high degree of confidence in the findings.

Since this research was a correlational study, it cannot assist in the exploration of whether dependency contributes to - or even precedes - the development of alcohol abuse, or whether the dependency is a consequence of the abuse.

Overall, it is noted that there were a number of important limitations inherent in the study. The most significant extraneous factors were the reliance on volunteers, and the use of the outpatient medical clinic as for the non-alcoholic control group.

5.6 Conclusions & Recommendations.

In summary, this study was able to provide evidence that women alcoholics are more dependent than women non-alcoholics. On the other hand, the study did not provide evidence that women alcoholics are more dependent than men alcoholics.

Hence, it is concluded that dependency in alcoholism does not appear to be related to gender. Accordingly, it appears that gender issues do not impact significantly upon the development of alcoholism, and it is suggested that dependency in alcoholism cannot be related to issues pertaining to the social construction of gender.

At the same time, in considering the findings of this study within the context of established findings, it emerges that dependency is certainly implicated in the presentation of alcoholism. However, whether dependency precedes alcoholism, alcoholism precedes dependency, or the two develop and emerge co-jointly could not be determined from this study.

Accordingly, it was unable to demonstrate that particular processes involved in the social construction of gender - namely, those which encourage greater dependency among women than among men, may contribute to more to the development of alcoholism among women than among men.

A number of limitations to this study were identified. Most significant appeared to be the problem of relying on volunteers to elicit information. Reliance on volunteers, and failure to elicit data from non-volunteers may have contributed to the inability of this study to provide support for the full research hypothesis.

This study did find that there is opportunity to extend investigation into the role of dependency in alcoholism, as well as to explore the nature of gender differences in personality among alcoholics. Clearly there is ample opportunity to continue to investigate these relationships. In particular, studies which refined sampling

procedures to overcome the confounding effect of the extraneous variables uncovered in this study, would be able to more rigorously explore the nature of interactions between the social construction of gender, dependency, relationship failure and alcohol abuse.

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7. APPENDICES

Appendix 1a

SUBJECT INFORMATION SHEET AND CONSENT FORM

Research is being conducted to investigate different factors related to the use of alcohol. The research forms part of a Master's degree being completed by the researcher at the University of the Witwatersrand.

Your participation in the research is requested. No names or addresses are required, and participation is entirely anonymous. It involves completing the three questionnaires attached to this page. These ask various questions about yourself. Participation is voluntary, and refusal to participate or your decision to discontinue will involve no penalty or loss of benefits to which you are entitled. There are no right or wrong answers to any of the questions. You are to complete them yourself, at your own pace.

The research involves no risk to subjects whatsoever.

Please will you tick the appropriate box below.

I am willing to participate in the above research.	

I am not willing to participate in the above research.	

Appendix 1b

2

BIOGRAPHICAL DATA QUESTIONNAIRE

Please provide the following information about yourself. Note that at no stage do we request your name, address, or any other form of identification. Your identity remains anonymous. The information is needed to investigate factors related to the use of alcohol.

1. SEX:

MALE		FEMALE	

2. AGE:

YOUNGER THAN 18	
18 – 29	
30 – 39	
40 – 49	
50 – 59	
60 AND OVER	

3. RACE: (Information is requested to see if cultural factors have any influence.)

BLACK		WHITE	
COLOURED		INDIAN	

4. MARITAL STATUS:

SINGLE		MARRIED		LIVE TOGETHER	
DIVORCED		SEPARATED		WIDOWED	

5. HIGHEST LEVEL OF EDUCATION: _____

6. EMPLOYMENT STATUS:

EMPLOYED		UNEMPLOYED	

7. RESIDENTIAL AREA IN WHICH YOU LIVE: _____

(GIVE SUBURB ONLY)

8. BRIEF DESCRIPTION OF NATURE OF YOUR PROBLEM/COMPLAINT AND TREATMENT:

_____

_____

_____

_____

Appendix 1c

3

Please circle the response that applies to you:

1. Do you feel you are a normal drinker? YES/NO
2. Have you ever awakened the morning after some drinking the night before, and found you could not remember a part of the evening before? YES/NO
3. Does your wife/partner/parents ever worry or complain about your drinking? YES/NO
4. Can you stop drinking without a struggle after one or two drinks? YES/NO
5. Do you ever feel bad about your drinking? YES/NO
6. Do friends or relatives think you are a normal drinker? YES/NO
7. Do you ever try to limit your drinking to certain times of the day, or to certain places? YES/NO
8. Are you always able to stop drinking when you want to? YES/NO
9. Have you ever attended a meeting of Alcoholics Anonymous (AA)? YES/NO
10. Have you gotten into fights when drinking? YES/NO
11. Has drinking ever created problems with you and your wife? YES/NO
12. Has your wife or other family member ever gone to anyone for help about your drinking? YES/NO
13. Have you ever lost friends or girlfriends/boyfriends because of drinking? YES/NO
14. Have you ever gotten into trouble at work because of drinking? YES/NO
15. Have you ever lost a job because of drinking? YES/NO
16. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking? YES/NO
17. Do you ever drink before noon? YES/NO
18. Have you ever been told you have liver trouble? Cirrhosis? YES/NO
19. Have you ever had delirium tremens (DT's), severe shaking, heard voices or seen things that weren't there after heavy drinking? YES/NO
20. Have you ever gone to anyone for help about your drinking? YES/NO
21. Have you ever been in a hospital because of drinking? YES/NO
22. Have you ever been a patient in a psychiatric hospital or on a psychiatric ward of a general hospital where drinking was part of the problem? YES/NO
23. Have you ever been seen at a psychiatric or mental health clinic, or gone to a doctor, social worker, or clergyman for help with an emotional problem in which drinking had played a part? YES/NO
24. Have you ever been arrested, even for a few hours, because of drunk behaviour? YES/NO
25. Have you ever been arrested for drunk driving or driving after drinking? YES/NO

Appendix 1d

4

INSTRUCTIONS

The following pages contain a list of statements that people use to describe themselves. They are printed here to help you in describing your feelings and attitudes. Try to be as honest and serious as you can in marking the statements.

Do not be concerned that a few of the statements will seem unusual to you; they are included to descibe many types of people. When you agree with a statement or decide that it describes you, circle the **TRUE** response. If you disagree with the statement or decide that it does not describe you, circle the **FALSE** response. Try to mark every statement even if you are not sure of your choice. If you have tried your best and still cannot decide, mark the **FALSE**.

There is no time limit for completing the inventory, but it is best to work as rapidly as is comfortable for you.

1. I always follow my own ideas rather than do what others expect of me. ..... TRUE/FALSE
2. I've always found it more comfortable to do things quietly alone instead of with others. ..... TRUE/FALSE
3. Talking to other people has almost always been difficult and painful for me. ..... TRUE/FALSE
4. I believe in being strong willed and determined in everything I do. ..... TRUE/FALSE
5. In the last few weeks I begin to cry even when the slightest of things goes wrong. ..... TRUE/FALSE
6. Some people think of me as a conceited and self-centered person. ..... TRUE/FALSE
7. As a teenager, I got into lots of trouble because of bad behaviour. ..... TRUE/FALSE
8. I always feel I am not wanted in a group. ..... TRUE/FALSE
9. I often criticize people strongly if they annoy me. ..... TRUE/FALSE
10. I am content to follow others. ..... TRUE/FALSE
11. I enjoy doing so many different things that I can't make up my mind what to do first. ..... TRUE/FALSE
12. Sometimes I can be pretty rough and mean in my relations with my family. ..... TRUE/FALSE
13. I have little interest in making friends. ..... TRUE/FALSE
14. I think I am a very sociable and out-going person. ..... TRUE/FALSE
15. I know I'm a superior person, so I don't care what people think. ..... TRUE/FALSE
16. People have never given me enough recognition for the things I've done. ..... TRUE/FALSE
17. I have a drinking problem that I've tried unsuccessfully to end. ..... TRUE/FALSE
18. Lately, I get butterflies in my stomach and break out in cold sweats. ..... TRUE/FALSE
19. I have always wanted to stay in the background during social activities. ..... TRUE/FALSE
20. I will often do things for no reason other than they might be fun. ..... TRUE/FALSE
21. I get very annoyed with people who never seem to able to do things right. ..... TRUE/FALSE
22. If my family puts pressure on me, I'm likely to feel angry and resist doing what they want. ..... TRUE/FALSE
23. I often feel I should be punished for the things I have done. ..... TRUE/FALSE
24. People make fun of me behind my back, talking about the way I act or look. ..... TRUE/FALSE
25. Other people seem more sure than I am of who they are and what they want. ..... TRUE/FALSE
26. I tend to burst out in tears or in anger for unknown reasons. ..... TRUE/FALSE
27. I began to feel lonely and empty about a year or two ago. ..... TRUE/FALSE
28. I have a talent to be dramatic. ..... TRUE/FALSE
29. I have a hard time keeping my balance when walking. ..... TRUE/FALSE
30. I enjoy intense competition. ..... TRUE/FALSE
31. When I run into a crisis, I quickly look for someone to help me. ..... TRUE/FALSE
32. I protect myself from trouble by never letting people know much about me. ..... TRUE/FALSE
33. I feel weak and tired much of the time. ..... TRUE/FALSE
34. Other people get more angry about bothersome things than I do. ..... TRUE/FALSE
35. My drug habits has often gotten me into a good deal of trouble in the past. ..... TRUE/FALSE
36. Lately, I find myself crying without any reason. ..... TRUE/FALSE
37. I think I'm a special person who deserves special attention from others. ..... TRUE/FALSE
38. Under no circumstances do I ever let myself be tricked by people who say they need help. ..... TRUE/FALSE
39. One sure way to make a peaceful world is by improving people's morals. ..... TRUE/FALSE
40. In the past I've gotten involved sexually with many people who didn't matter much to me. ..... TRUE/FALSE
41. I find it hard to sympathize with people who are always unsure about things. ..... TRUE/FALSE
42. I am a very agreeable and submissive person. ..... TRUE/FALSE
43. My own "bad temper" has been a big cause of my unhappiness. ..... TRUE/FALSE
44. I don't mind bullying others to get them to do what I want. ..... TRUE/FALSE

45. For the past few years even minor things seem to depress me. ..... TRUE/FALSE
46. My wish to get things done just perfectly often slows down my work. ..... TRUE/FALSE
47. I'm so quiet and withdrawn, most people don't even know I exist. ..... TRUE/FALSE
48. I like to flirt with members of the opposite sex. ..... TRUE/FALSE
49. I am a quiet and fearful person. ..... TRUE/FALSE
50. I'm a very erratic person, changing my mind and feelings all the time. ..... TRUE/FALSE
51. I feel very tense when I think of the day's happenings. ..... TRUE/FALSE
52. Drinking alcohol has never caused me any real problems in my work. ..... TRUE/FALSE
53. Lately, my strength seems to be draining out of me, even in the morning. ..... TRUE/FALSE
54. I began to feel like a failure some years ago. ..... TRUE/FALSE
55. I strongly resent "big shots" who always think they can do things better than I can. ..... TRUE/FALSE
56. I have always had a terrible fear that I will lose the love of people I need very much. ..... TRUE/FALSE
57. I seem to go out of my way to let people take advantage of me. ..... TRUE/FALSE
58. Lately, I have begun to feel like smashing things. ..... TRUE/FALSE
59. I have given serious thought recently to doing away with myself. ..... TRUE/FALSE
60. I am always looking to make new friends and meet new people. ..... TRUE/FALSE
61. I keep a very close track of my money so I am prepared if a need comes up. ..... TRUE/FALSE
62. I was on the front cover of several magazines last year. ..... TRUE/FALSE
63. Few people like me. ..... TRUE/FALSE
64. If someone criticized me for making a mistake, I would quickly point out some of that person's mistakes. ..... TRUE/FALSE
65. Some people say I enjoy suffering. ..... TRUE/FALSE
66. I often let my angry feelings out and then feel terribly guilty about it. ..... TRUE/FALSE
67. Lately, I feel jumpy and under terrible strain, but I don't know why. ..... TRUE/FALSE
68. I very often lose my ability to feel any sensations in parts of my body. ..... TRUE/FALSE
69. I believe there are people who use telepathy to influence my life. ..... TRUE/FALSE
70. Taking so-called illegal drugs may be unwise, but in the past I found I needed them. ..... TRUE/FALSE
71. I feel tired all the time. ..... TRUE/FALSE
72. I can't seem to sleep, and wake up just as tired as when I went to bed. ..... TRUE/FALSE
73. I've done a number of stupid things on impulse that ended up causing me great trouble. ..... TRUE/FALSE
74. I never forgive an insult or forget an embarrassment that someone caused me. ..... TRUE/FALSE
75. We should respect earlier generations and not think we know better than they. ..... TRUE/FALSE
76. I feel terribly depressed and sad much of the time now. ..... TRUE/FALSE
77. I am the sort of person that others take advantage of. ..... TRUE/FALSE
78. I always try hard to please others, even when I dislike them. ..... TRUE/FALSE
79. Serious thoughts of suicide have occurred to me for many years. ..... TRUE/FALSE
80. I quickly figure out how people are trying to cause me trouble. ..... TRUE/FALSE
81. I've always had less interest in sex than most people do. ..... TRUE/FALSE
82. I can't understand it, but I seem to enjoy hurting persons I love. ..... TRUE/FALSE
83. A long time ago, I decided it's best to have little to do with people. ..... TRUE/FALSE
84. I am ready to fight to the death before I'd let anybody take away my self-determination. ..... TRUE/FALSE
85. Since I was a child, I have always had to watch out for people who were trying to cheat me. ..... TRUE/FALSE
86. When things get boring, I like to stir up some excitement. ..... TRUE/FALSE
87. I have an alcohol problem that has made difficulties for me and my family. ..... TRUE/FALSE
88. If a person wants something done that calls for real patience, they should ask me. ..... TRUE/FALSE

89. I am probably the most creative thinker among the people I know. ..... TRUE/FALSE
90. I have not seen car in the last ten years. ..... TRUE/FALSE
91. I don't see anything wrong with using people to get what I want. ..... TRUE/FALSE
92. Punishment never stopped me from doing what I wanted. ..... TRUE/FALSE
93. There are many times, when for no reason, I feel very cheerful and full of excitement. ..... TRUE/FALSE
94. I ran away from home as a teenager at least once. ..... TRUE/FALSE
95. I very often say things quickly that I regret having said. ..... TRUE/FALSE
96. In recent weeks I feel worn out for no special reason. ..... TRUE/FALSE
97. For some time now I've been feeling very guilty because I can't do things right any more. ..... TRUE/FALSE
98. Ideas keep turning over and over in my mind and they won't go away. ..... TRUE/FALSE
99. I've become quite discouraged and sad about life in the past year or two. ..... TRUE/FALSE
100. Many people have been spying into my private life for years. ..... TRUE/FALSE
101. I don't know why, but I sometimes say cruel things just to make others unhappy. ..... TRUE/FALSE
102. I hate or fear most people. ..... TRUE/FALSE
103. I speak out my opinions about things no matter what others may think. ..... TRUE/FALSE
104. When someone in authority insists that I do something, I'm likely to put it off or do it poorly on purpose.. TRUE/FALSE
105. My habit of abusing drugs has caused me to miss work in the past. ..... TRUE/FALSE
106. I am always willing to give in to others to avoid disagreements. ..... TRUE/FALSE
107. I am often cross and grouchy. ..... TRUE/FALSE
108. I just don't have the strength lately to fight anymore. ..... TRUE/FALSE
109. Lately, I have to think things over and over again for no good reason. ..... TRUE/FALSE
110. I often think that I don't deserve the good things that happen to me. ..... TRUE/FALSE
111. I use my charm to get the attention of other people. ..... TRUE/FALSE
112. When I'm alone, I often feel the strong presence of someone nearby who can't be seen. ..... TRUE/FALSE
113. I feel pretty aimless and don't know where I'm going in life. ..... TRUE/FALSE
114. Lately, I've been sweating a great deal and feel very tense. ..... TRUE/FALSE
115. Sometimes I feel like I must do something to hurt myself or someone else. ..... TRUE/FALSE
116. I've been unfairly punished by the law for crimes I never committed. ..... TRUE/FALSE
117. I've become very jumpy in the last few weeks. ..... TRUE/FALSE
118. I keep having strange thoughts that I wish I could get rid of. ..... TRUE/FALSE
119. I have a great deal of trouble trying to control an impulse to drink to excess. ..... TRUE/FALSE
120. Most people think that I'm a worthless nothing. ..... TRUE/FALSE
121. I can get very excited sexually when fighting or arguing with a loved one. ..... TRUE/FALSE
122. I have succeeded over the years in keeping my drinking of alcohol to a minimum. ..... TRUE/FALSE
123. I have always "tested" people to find out how much they can be trusted. ..... TRUE/FALSE
124. Even when I'm awake, I don't seem to notice people who are near me. ..... TRUE/FALSE
125. It is very easy for me to make many friends. ..... TRUE/FALSE
126. I always make sure that my work is well planned and organized. ..... TRUE/FALSE
127. I very often hear things so well that it bothers me. ..... TRUE/FALSE
128. My moods seem to change a great deal from one day to the next. ..... TRUE/FALSE
129. I don't blame anyone who takes advantage of someone who allows it. ..... TRUE/FALSE
130. I've changed jobs more than three times in the last couple of years. ..... TRUE/FALSE
131. I have many ideas that are ahead of the times. ..... TRUE/FALSE
132. For some time now I've been feeling sad and blue and can't seem to snap out of it. ..... TRUE/FALSE

APPENDIX 2a

WOMEN ALCOHOLICS

SS	SS	MT	DIS	CR	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	2	3	4	5	6	7
GP	RF	SC	LVL	FT	1	2	3	4	5	6A	6B	7	8A	8B	S	C	P	A	H	N	D	B	T	SS	CC	PP	A	R	M	ED	E	RES. AREA
WA	1	25	457	-3	64	85	65	78	49	87	78	28	101	103	62	118	64	88	64	57	88	109	87	61	63	52	2	C	S	8	E	YEOVILLE
WA	2	14	479	-4	100	107	77	27	85	65	73	87	85	79	112	84	63	101	66	31	91	67	63	69	77	56	3	W	M	10	E	BENONI
WA	3	24	541	-8	71	100	85	73	68	65	70	50	113	113	68	113	59	99	72	65	107	107	71	77	107	85	2	B	M	13	E	MIDRAND
WA	4	24	450	-3	67	66	75	88	93	82	97	38	85	73	63	71	63	80	60	66	68	91	88	59	57	75	3	C	M	10	E	JHB
WA	5	6	435	-2	76	74	79	77	119	62	74	92	67	68	70	50	94	8	43	58	0	18	41	60	43	80	3	B	S	?	E	JHB
WA	6		INV																													
WA	7	36	391	0	0	64	89	92	79	66	75	84	77	72	47	58	67	15	50	61	15	71	86	47	25	60	5	W	M	9	E	ROODEPRT
WA	8	47	581	-11	66	93	26	82	110	110	84	60	110	95	78	110	110	101	74	86	104	104	104	70	89	76	4	W	S	9	E	HILLBROW
WA	9	45	398	0	69	85	95	79	73	69	30	64	52	77	66	62	57	64	59	60	39	63	60	62	60	37	4	W	D	10	E	SOUTH
WA	10	43	458	-3	66	73	81	88	98	92	79	41	69	87	48	85	64	49	56	62	88	100	85	57	61	57	3	W	M	13	E	BLAIRGOWRIE
WA	11	15	393	0	69	69	95	86	76	50	67	63	66	80	44		57	91	66	70	90	94	78	45	77	55	3	C	M	10	E	JHB
WA	12	24	540	-8	76	113	73	55	77	72	67	86	71	113	113	115	99	104	72	60	107	98	66	81	107	97	4	W	D	10	U	SOUTH SUBS
WA	13	31	455	-3	70	71	72	75	78	73	71	91	76	96	57	100	72	98	61	59	90	112	75	57	32	75	59	W	L	10	U	KILLARNEY
WA	14	26	518	-7	43	68	48	114	14	104	88	40	114	74	59	102	100	98	73	108	85	102	90	74	72	81	2	W	S	12	E	WINCHESTER
WA	15	20	477	-4	49	56	0	117	117	117	117	32	117	38	43	84	93	6	46	93	0	87	100	56	21	56	3	B	L	8	U	SOWETO
WA	16	18	286	0	66	60	30	69	45	50	68	64	57	34	44	38	53	0	25	55	5	57	45	40	25	37	4	W	D	14	U	BRIXTON
WA	17	45	467	-4	117	117	98	11	0	61	38	82	59	114	92	71	63	103	66	53	88	108	59	68	63	56	2	W	D	10	E	WESTDENE
WA	18	36	450	-3	74	99	67	46	64	72	71	68	101	83	67	112	64	106	68	57	102	97	74	57	78	57	4	W	M	8	U	GLENANDA
WA	19	34	314	0	70	74	75	24	69	47	39	89	24	74	60	38	67	15	30	30	33	52	41	60	25	60	4	B	M	8	E	PARKTOWN
WA	20	28	404	0	67	78	108	78	43	50	35	84	72	92	54	73	67	105	85	60	92	94	60	60	69	55	3	W	D	10	E	KEMPT. PRK
WA	21	28	497	-6	70	98	102	72	67	66	24	48	67	115	60	115	61	109	67	49	109	106	72	56	109	54	3	W	S	13	U	GREENSIDE
U		28.4	450	-3.5	67.6	82.4	72	71.6	70.2	73	66.8	64.6	79.2	94	65.4	83.4	71.9	72	60.3	62	70.1	86.9	71.3	60.8	63	63.1	6			9.75		

APPENDIX 2b

WOMEN NON-ALCOHOLICS

SS	SC	MT	DIS	CR	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	2	3	4	5	6	7
GP	RP	SC	LVL	FT	1	2	3	4	5	6A	6B	7	8A	8B	S	C	P	A	H	N	D	B	T	SS	CC	PP	A	R	M	ED	E	RES. AREA
WN	1	0	354	0	73	75	66	41	74	61	77	86	74	40	47	46	67	0	35	37	0	10	43	60	45	60	2	W	S	13	U	BEREA
WN	2	0	578	-11	67	110	110	71	59	52	62	60	107	110	110	110	66	66	56	62	99	49	57	36	77	75	2	W	S	10	E	QUELLERINA
WN	3	0	317	0	60	41	66	80	73	66	69	86	57	37	44	43	67	0	35	57	0	42	60	42	10	45	2	B	S	11	E	BEREA
WN	4	0	249	0	0	0	66	80	72	50	67	86	0	0	41	0	67	0	30	52	0	15	35	38	0	45	3	W	M	15	E	RANDBURG
WN	5	0	226	0	5	2	2	66	71	47	57	66	26	12	18	2	47	2	27	57	2	2	27	2	2	37	3	B	M	14	E	MONTGOM. PARK
WN	6	0	215	3	53	3	71	61	43	3	47	95	3	13	46	3	56	3	36	28	3	3	15	41	3	63	4	W	M	10	E	HOUGHTON
WN	7	0	310	0	76	64	84	10	68	42	55	93	51	42	54	36	67	0	35	15	0	10	12	60	10	60	3	C	D	10	E	ORANGE GROVE
WN	8	0	419	-1	71	72	44	80	120	77	88	93	68	36	61	40	110	34	57	61	21	54	85	63	52	86	2	I	S	11	E	BELLEVUE EAST
WN	9	3	392	0	56	72	78	91	72	66	73	61	73	78	54	72	67	72	68	70	76	61	71	60	61	60	2	W	S	13	E	OBSERVATORY
WN	10	0	206	-4	54	19	19	45	52	51	48	48	28	24	48	-4	49	4	14	41	4	4	24	4	4	41	2	B	M	15	U	BEREA
WN	11	1	218	3	71	73	23	3	16	45	27	65	20	37	51	13	55	3	13	28	3	3	7	43	3	43	4	W	S	10	E	KEMPTON PARK
WN	12	5	377	0	53	51	5	70	80	73	84	82	100	72	44	68	67	40	50	60	39	60	70	42	60	60	3	W	S	13	E	JUDITH PAARL
WN	13	3	278	0	0	0	15	76	80	72	72	84	45	0	43	34	67	0	10	60	0	20	58	38	0	60	2	C	S	13	E	YEOVILLE
WN	14	0	448	-3	70	74	81	79	88	73	76	83	76	66	63	60	93	0	52	71	0	49	63	59	44	71	1	B	S	6	U	BEREA
WN	15	0	535	-8	59	71	67	96	113	82	96	76	92	78	61	88	111	81	59	76	83	59	71	64	61	80	2	I	S	10	E	BEREA
WN	16	10	456	-3	53	75	0	90	96	108	112	44	106	66	62	103	77	39	57	81	79	66	89	67	61	73	2	W	S	10	U	BEREA
WN	17	1	288	0	35	0	45	84	80	66	71	84	32	10	41	5	67	0	40	65	0	35	60	55	0	82	2	W	M	10	E	BEREA
WN	18	0	310	0	0	0	5	97	85	65	80	36	69	37	16	56	67	64	60	76	10	45	64	42	50	45	5	W	W	10	E	SYDENHAM
WN	19	0	510	-6	70	8	95	80	69	60	69	72	82	102	96	68	65	99	69	61	89	65	71	79	70	61	6	W	W	10	E	BEREA
WN	20	0	430	-3	68	78	68	89	93	78	76	47	82	73	65	66	83	77	82	67	79	56	66	70	58	83	2	W	S	10	E	BEREA
WN	21	0	314	0	60	69	0	83	85	70	66	26	51	42	51	57	67	42	59	62	39	52	60	60	56	62	3	B	S	14	E	BELLEVUE EAST
U		1.15	373	-1.3	52.7	47.9	50.5	74.2	79.1	65.4	73.7	73.7	82.1	46.8	55.8	48.7	74.1	32.3	46.3	59.4	31.3	38	54.4	53.8	36.4	63.6	3			11.9		

APPENDIX 2c

MEN ALCOHOLICS

SS	SS	MT	DIS	CR	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	2	3	4	5	6	7
GP	RF	SC	LVL	FT	1	2	3	4	5	6A	6B	7	8A	8B	S	C	P	A	H	N	D	B	T	SS	CC	PP	A	R	M	ED	E	RES. AREA
MA	1	22	466	-4	67	70	85	64	98	70	92	93	90	74	64	91	103	84	62	61	86	81	73	66	61	96	5	W	D	10	U	CRAIGHALL
MA	2	17	427	-1	66	85	80	75	76	105	46	25	101	76	65	99	58	97	67	62	87	96	88	66	60	46	4	B	L	8	E	SOWETO
MA	3		INV																													
MA	4		INV																													
MA	5	49	565	-10	101	111	68	49	76	84	90	68	111	110	111	111	82	88	55	50	83	98	87	75	61	78	3	C	M	8	U	TROYVILLE
MA	6	45	563	-10	111	111	84	59	71	71	73	51	107	111	106	111	60	86	58	54	105	101	82	62	105	50	3	W	D	13	U	RIVERCLUB
MA	7		INV																													
MA	8		INV																													
MA	9	40	458	-3	60	87	77	77	93	86	93	58	75	76	68	118	64	80	63	57	91	100	92	65	66	61	4	W	D	?	U	KENSINGTON
MA	10	35	361	0	66	67	6	73	86	68	83	71	51	67	66	66	61	70	59	60	61	88	75	60	60	60	2	C	S	10	E	JHB
MA	11	38	561	-10	111	111	79	45	76	102	70	53	101	110	111	87	90	90	57	51	85	105	90	75	63	75	5	W	D	6	U	JUDITH PAARL
MA	12	46	465	-4	65	79	90	70	77	77	64	74	86	107	66	71	65	82	58	65	81	89	73	69	59	61	4	W	SG	?	U	BERTRAMS
MA	13	49	517	-7	79	114	78	56	45	109	72	27	112	114	77	114	57	83	57	58	93	106	99	66	70	50	4	W	S	8	U	JHB
MA	14	17	433	-2	51	69	72	69	884	77	98	76	106	73	56	73	64	84	60	61	61	97	85	61	58	49	4	W	M	10	E	BRAMLEY
MA	15	21	443	-2	69	72	64	77	78	75	103	39	112	74	63	90	61	62	57	61	89	92	83	65	61	45	2	W	S	11	U	
MA	16		INV																													
MA	17		INV																													
MA	18	23	320	0	28	26	77	68	86	62	68	94	32	68	48	42	70	20	48	60	15	25	51	60	35	65	4	W	D	10	E	BEREA
MA	19	40	552	-9	92	112	69	67	63	103	91	52	107	112	75	112	57	106	60	51	106	99	89	62	101	48	3	W	D	8	U	LANGLAAGTE
MA	20	37	525	-7	79	98	87	67	94	84	95	83	81	82	109	68	114	70	56	58	80	82	82	66	60	93	3	B	M	10	E	ALEXANDRA
MA	21		INV																													
MA	22	41	456	-3	98	91	93	44	63	72	59	68	91	86	64	84	62	97	63	36	90	86	70	58	65	44	4	I	L	10	E	LENASIA
MA	23		INV																													
MA	24	21	494	-5	62	95	37	74	93	116	116	29	116	71	67	99	83	74	60	64	44	95	110	72	55	75	3	W	S	11	E	GLENESK
MA	25		INV																													
MA	26	17	541	-8	100	86	72	81	102	102	108	85	80	68	113	72	105	77	56	77	82	81	90	63	60	83	5	B	M	8	E	MELROSE
MA	27	18	408	0	88	66	111	36	61	62	75	95	68	76	66	67	66	88	66	60	63	89	65	61	61	55	5	B	M	10	E	SOWETO
MA	28	28	366	0	69	16	771	70	101	72	93	90	49	61	46	59	67	50	15	60	30	75	77	60	35	57	5	W	S	10	U	BERTRAMS
MA	29		INV																													
U		31.8	470	-4.5	76.9	82.5	111	64.3	122	84.1	83.6	64.8	88.2	85.1	75.8	86	73.1	78.3	55.7	58.2	75.4	88.7	82.2	64.8	63.1	62.7	4			8.47		

APPENDIX 2d

MEN NON-ALCOHOLICS

SS	SS	MT	DIS	CR	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	2	3	4	5	6	7
GP	RF	SC	LVL	FT	1	2	3	4	5	6A	6B	7	8A	8B	S	C	P	A	H	N	D	B	T	SS	CC	PP	A	R	M	ED	E	RES. AREA
MN	1	3	450	-3	98	94	77	56	67	76	83	62	99	71	67	69	68	57	55	50	58	68	67	64	57	61	3	B	M	10	E	BEREA
MN	2	2	320	0	67	61	66	66	67	59	66	61	66	66	51	46	55	0	30	53	32	35	48	50	50	38	2	W	S	10	E	YEOVILLE
MN	3	0	393	0	69	61	81	76	90	71	86	95	67	61	64	41	80	30	57	61	15	60	61	60	44	69	2	I	S	10	E	BEREA
MN	4	0	365	0	13	68	81	78	81	73	43	36	71	76	66	73	61	72	62	61	90	55	65	68	60	60	2	W	S	14	E	YEOVILLE
MN	5	3	309	0	48	6	42	68	92	68	93	83	42	30	51	41	70	0	15	60	0	45	61	60	38	64	2	C	L	11	E	YEOVILLE
MN	6	1	304	0	48	68	66	36	27	57	50	18	98	74	58	73	19	40	57	53	58	61	60	50	60	25	3	W	S	16	E	HOUGHTON
MN	7	0	296	0	48	6	0	76	110	72	79	34	49	0	46	42	69	0	30	61	0	45	65	55	35	63	3	C	M	15	E	LINDEN
MN	8	1	553	-9	97	112	89	60	64	72	89	52	108	112	110	112	81	106	61	52	108	76	68	81	71	54	2	W	S	10	E	BEREA
MN	9	4	294	0	67	53	50	11	77	69	62	90	47	44	61	41	64	20	30	60	15	48	54	55	38	47	3	C	M	13	E	ORANGE GRV
MN	10	0	238	1	44	7	35	62	76	50	63	66	18	1	27	12	56	1	41	61	16	42	40	36	42	42	6	W	W	10	E	SANDOWN
MN	11	0	288	0	38	6	69	71	93	67	66	78	12	10	36	21	68	0	48	62	0	48	61	60	0	63	2	W	S	10	E	EDENVALE
MN	12	4	386	0	70	53	81	76	100	74	75	80	68	50	67	48	88	50	59	63	0	35	68	62	35	94	2	C	S	10	E	BEREA
MN	13	0	557	-9	87	101	85	70	89	70	96	88	99	110	88	65	95	66	53	70	79	66	63	76	52	79	6	C	M	7	U	HILBROW
MN	14	0	423	-1	90	73	101	75	87	36	53	89	54	73	68	47	68	63	66	59	54	37	43	60	59	62	2	B	S	10	U	?
MN	15	2	358	0	67	41	96	71	90	64	70	95	34	55	64	31	69	62	59	60	21	51	61	60	44	60	5	I	W	10	U	BELVIEW
MN	16	0	337	0	28	6	34	81	101	70	102	78	70	38	51	42	69	20	48	64	0	51	63	50	35	63	2	B	S	12	E	SOWETO
MN	17	6	475	-4	70	77	76	66	92	75	102	94	96	72	65	69	88	77	59	61	70	67	66	64	56	65	2	B	M	11	U	BEREA
MN	18	3	464	-4	84	104	90	64	86	50	58	94	51	89	73	62	69	75	58	65	76	57	58	73	56	67	2	B	S	11	U	?
MN	19		INV																													
MN	20	0	482	-5	116	107	61	31	72	93	83	85	97	74	76	82	66	88	59	55	87	74	74	72	60	62	5	C	D	9	U	ELDORADO P.
U		1.53	383.8	-1.8	65.7	58.1	67.4	62.8	82.2	66.6	73.6	72.5	65.7	58.2	62.6	53.5	67.5	43.5	49.5	59.5	40.9	53.6	60.3	60.6	46.9	59.9	2.9			11		

Appendix 3

Fri May 10 1996 08:38:41 AM

Variable:	WA DEPY	WN DEPY
Sample size	20	21
Average	72	48.0952
Median	76	66
Mode	95	66
Geometric mean		
Variance	751.368	1230.09
Standard deviation	27.4111	35.0726
Standard error	6.12931	7.65348
Minimum	0	0
Maximum	108	110
Range	108	110
Lower quartile	66	15
Upper quartile	92	71
Interquartile range	26	56
Skewness	-1.23524	-0.0824148
Standardized skewness	-2.25522	-0.154184
Kurtosis	1.3777	-1.34576
Standardized kurtosis	1.25766	-1.25885

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Variable:	MA DEPY	MN DEPY
Sample size	19	19
Average	73.6842	67.3684
Median	77	76
Mode	77	81
Geometric mean	66.3652	
Variance	480.006	647.69
Standard deviation	21.909	25.4498
Standard error	5.02628	5.83857
Minimum	6	0
Maximum	111	101
Range	105	101
Lower quartile	69	50
Upper quartile	85	85
Interquartile range	16	35
Skewness	-1.72219	-1.13308
Standardized skewness	-3.06466	-2.01633
Kurtosis	4.85454	1.2534
Standardized kurtosis	4.31936	1.11522

Author: Carr Spencer.
Name of thesis: Gender differences in dependency among alcoholics.

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