FACTORS ASSOCIATED WITH RETENTION AND COMPLETION IN SUBSTANCE ABUSE TREATMENT AMONG HISTORICALLY DISADVANTAGED COMMUNITIES IN CAPE TOWN

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KEYWORDS

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ABSTRACT

Cape Town is suffering from high rates of alcohol and other drug (AOD) problems. Despite the need for effective treatment, there are insufficient AOD treatment facilities available, with barriers to AOD treatment being particularly pronounced among historically disadvantaged communities (HDCs). In addition, the high drop-out rate of patients from AOD treatment, and the finding that retention in treatment is predictive of positive outcomes, increases the necessity of retaining people who enter AOD treatment. This study therefore aimed to identify those patient-level factors impacting on the successful completion of and retention in AOD treatment. In particular, the study aimed to describe the relationship between treatment process factors (therapeutic alliance, motivation, treatment satisfaction, social support), demographic and psychological variables, and treatment completion and retention. The Texas Christian University (TCU) Treatment Model, which conceptualises the AOD treatment process, provided the theoretical framework for the study. Using a quantitative design, secondary data analysis was conducted on a section of data that was originally collected by the Medical Research Council (MRC) via a cross-sectional survey. The sample consisted of 434 individuals from HDCs who had previously entered AOD treatment. Multiple regression analyses revealed that the therapeutic alliance, treatment satisfaction, abstinence-specific social support and depression were significant predictors of treatment completion, while race, therapeutic alliance, abstinence-specific social support and anxiety were predictive of the time spent in treatment. These predictors were positively associated with treatment completion and time in treatment. Black Africans spent significantly less days in treatment than Coloured individuals, although both groups were equally likely to complete treatment. The results suggest that by strengthening the therapeutic alliance, social support and treatment satisfaction, treatment completion and retention can be improved. This can be achieved by training, ongoing monitoring of these factors during treatment, and greater involvement of supportive social networks in a patient's recovery. The findings also point towards the need for improved service delivery for Black Africans, who confront many barriers to accessing inpatient AOD treatment.

DECLARATION

I declare that *Factors Associated with Retention and Completion in Substance Abuse Treatment among Historically Disadvantaged Communities in Cape Town* is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Full name _____ Date _____

Signed _____

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CONTENTS

CHAPTER 4: RESULTS

CHAPTER 5: DISCUSSION

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1
INTRODUCTION

1.1 BACKGROUND TO THE STUDY

South Africa is experiencing an increase in alcohol and other drug (AOD) related problems (Parry et al., 2002; Parry, Plüddemann, Louw, & Leggett, 2004). Although alcohol remains the most abused substance in the country (Plüddemann et al., 2006), South Africa's re-entry into the international community post 1994 has made it a geographically convenient stopover between Asia and the Americas, resulting in an influx of illicit drugs such as heroin and cocaine (Parry et al., 2002).

AOD problems are particularly prevalent in the Cape Town metropole. Compared to other cities in South Africa, Cape Town has the highest proportion of drug-positive arrestees (56%) (Parry et al., 2004), higher rates for risky drinking (Reddy et al., 2003; Shisana et al., 2005), the highest proportion of traumatic injuries relating to substance use (Parry, Plüddemann, Donson, et al., 2005), and the widest range of drugs used (Myers, Parry, & Plüddemann, 2004). Cape Town is also the only city in South Africa where methamphetamine has taken over from alcohol as the most abused substance, with 46% of patients reporting for treatment describing methamphetamine as their primary or secondary substance of abuse (Plüddemann et al., 2006).

Despite the need for AOD treatment, formal AOD treatment services in Cape Town are only able to assist a maximum of 3,000 people a year (Plüddemann, Parry, Donson & Sukhai, 2004). This is insufficient in a region that houses about 3 million people (Statistics South Africa, 2003), of which at least 10% meet DSM-IV-TR criteria for alcohol abuse and/or dependence alone (Parry, Plüddemann, Steyn, et al., 2005).

The high demand for AOD treatment and the lack of sufficient facilities to meet this demand, make it all the more necessary to ensure that those individuals entering treatment for AOD abuse are successfully retained in and complete treatment. Completion of treatment for AOD abuse has been associated with successful outcomes

upon discharge (Greenfield et al., 2004; Howell, Heiser, & Harrington, 1999; Simpson, 2004), with treatment retention being regarded as a proximal predictor for positive post-treatment outcomes (Gossop, Stewart, Browne & Marsden, 2002; Simpson, 2004). In order to maximise completion rates, it is therefore important to determine what factors are positively associated with or hinder treatment completion.

1.2 RATIONALE FOR THE STUDY

Cape Town is suffering from high rates of AOD problems (Parry et al., 2002, 2004), creating a demand for effective AOD treatment. This demand is exacerbated by insufficient AOD treatment facilities (Plüddemann et al., 2004) and barriers to treatment among historically disadvantaged communities (HDCs) (Myers, Louw, & Fakier, 2008; Myers & Parry, 2005). Limited access to AOD treatment for HDCs remains post apartheid (Myers & Parry, 2005), despite high levels of AOD use among Black African and Coloured[1] communities (Kalichman et al., 2006). Black Africans are still underrepresented in AOD treatment facilities in Cape Town, with the proportion of Black Africans declining from 12% in 2000 to 7% in 2004 (Myers et al., 2004). Considering that Black Africans comprise about 35% of the population in the Cape Town metropole (Smith, 2007), these are concerning statistics.

Furthermore, the high drop-out rate of clients from AOD treatment (Agosti, Nunes, & Ocepeck-Welikson, 1996; Ravndal, Vaglum, & Lauritzen, 2005; Simpson, Joe, Rowan-Szal, & Greener, 1997) and the finding that treatment retention is strongly correlated with positive post-treatment outcomes (Greenfield et al., 2004; Simpson, 2004) increases the necessity of retaining those people who enter treatment in the first place.

This study therefore aims to identify and describe the treatment process factors, demographic and psychological variables associated with treatment retention for AOD related problems among HDCs in Cape Town. By investigating whether the treatment process factors considered (namely therapeutic alliance, treatment satisfaction, treatment

[1] The terms "Black African, Coloured, White" are used for their historical significance, and do not signify inherent characteristics. Their use is not meant to condone racial categorisation.

motivation and social support) and specific demographic and psychological variables (such as gender, age, depression and anxiety) aid or hinder treatment completion, service providers would be able to take these factors into consideration when planning treatment programmes.

Although a fair amount of international research has been conducted on the impact of treatment process factors (e.g. Simpson, 2004; Simpson & Joe, 2004) and demographic variables (e.g. Matthews & Lorah, 2005) on treatment completion for AOD problems, there is a lack of research in this area specific to the South African context. Research specific to South Africa has predominantly focused on prevalence rates of AOD abuse (e.g. Parry et al., 2002; Parry, Plüddemann, Steyn, et al., 2005) and substance abuse treatment systems, including barriers to AOD treatment use (e.g. Myers et al., 2008; Myers & Parry, 2005). There is a dearth of South African research concerning treatment process factors that may impact on the retention of patients once they have entered treatment for AOD problems. This study hopes to highlight these treatment process factors within a South African setting, focusing on the Cape Town metropole.

1.3 SIGNIFICANCE OF THE STUDY

This study aims to highlight those treatment process factors, demographic and psychological variables that have a significant relationship with treatment retention for AOD abuse. Knowledge of these factors will enable treatment programmes to incorporate these in planning interventions, thereby improving treatment effectiveness. Enabling improved treatment retention will in turn reduce financial and social costs by effectively treating a larger number of patients, and reducing the number of drop-outs. This is particularly important in a South African context, were there is a lack of accessible treatment options for disadvantaged communities suffering from AOD problems.

1.4. SCOPE OF THE STUDY

The current study focuses on patient-level factors impacting on successful completion of AOD treatment. It does not concern itself with broader organisational concerns (e.g. resources, information systems, staff skills), the effectiveness of specific treatment

modalities (e.g. long-term residential treatment, outpatient treatment) or specific interventions (e.g. family therapy, social-skills training). Instead this study focuses on generic, yet dynamic patient-level factors which apply across treatment settings, such as motivation, therapeutic alliance and social support. It also investigates the impact of demographic and psychological patient characteristics on treatment completion and time in treatment.

1.5 AIMS OF THE STUDY

This study aims to examine the factors associated with treatment retention and completion for AOD abuse. Specific hypotheses will be elaborated on in chapter 3. The broad aims of the study are as follows:

1) To describe the relationship between treatment process factors (treatment motivation, treatment satisfaction, social support and therapeutic alliance) and treatment retention and completion for AOD abuse.

2) To identify which demographic and psychological variables are related to treatment retention and completion.

3) To examine the interrelationship between the various treatment process factors (treatment motivation, treatment satisfaction, social support and therapeutic alliance).

1.6 DEFINITIONS

For the purposes of the study, some frequently used terms are defined below:

i. *Treatment process factors*: For the purposes of this study, dynamic variables that are considered to have an impact on the effectiveness of the AOD treatment process, whether negative or positive, are termed "treatment process factors". These variables are considered to be dynamic and involve an interaction between the patient and other important stakeholders, such as programme staff and the individual's social network.

The treatment process factors considered in this study are treatment satisfaction, therapeutic alliance, motivation and social support.

ii. *Patient-level factors:* This term is used to distinguish between variables that directly relate to the patient, and broader socioeconomic (e.g. transport, cost of treatment) and organisational (e.g. resources, information systems, training) demands which impact on AOD treatment. This study focuses solely on patient-level factors, such as the treatment process factors mentioned above, and demographic and psychological characteristics (e.g. gender, age, psychological functioning) of the patient.

iii. *Addiction:* Although addiction is often applied to behaviours other than problematic AOD use, for the purposes of this study it is regarded as the "compulsion to use alcohol or other drugs regardless of negative or adverse consequences" (Fisher & Harrison, 2005, p.15). It is characterised by psychological, and often but not necessarily, physical dependence (Fisher & Harrison, 2005).

iv. *Substance abuse*: Substance abuse is defined as "a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances" (American Psychiatric Association [APA], 2000, p.198). One or more areas of an individual's life are adversely affected by continued alcohol and/or drug use, including work, school, home, interpersonal relationships, financial and legal aspects (APA, 2000; Fisher & Harrison, 2005).

v. *Drug/s:* For the purposes of this study the term "drug" refers to both illicit and legal (e.g. over the counter prescription medication) drugs whose excessive use has the potential to negatively impact on an individual's well-being. The term excludes alcohol.

1.7 OVERVIEW OF THE STUDY

This chapter provided a background to the research study, placing it into context. The rationale, significance and aims of the study were highlighted.

The following chapter incorporates a review of the relevant literature relating to the AOD treatment process, and places the research within a theoretical framework. Chapter 3 outlines the research methodology, providing an overview of the research questions, research design, the sample, procedures, measuring instruments and ethical considerations. The statistical analyses of the study are presented in chapter 4. Finally, these results are discussed in view of the literature in chapter 5. Limitations of the study, implications of the findings, and recommendations for future research are also examined.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides an overview of the relevant literature in the AOD treatment field. It begins by delineating the scope of the literature review and discussing the concepts of treatment retention and completion. The theoretical framework for the study is then presented, followed by a review of the relevant treatment process factors and demographic and psychological variables which are thought to have an impact on treatment retention, and ultimately post-treatment outcome.

2.1.1 Restrictions of the literature review

The literature review is restricted in the sense that it is concerned with the so-called "second generation" (Fiorentine, 2001, p.626) of treatment research for AOD problems. While "first generation" research has overwhelmingly concluded that AOD treatment can be effective for some individuals (e.g. Gossop, Marsden, Stewart, & Treacy, 2001; Greenfield et al., 2004; Hubbard, Craddock, Flynn, Anderson, & Etheridge, 1997; Prendergast, Podus, Chang, & Urada, 2002; Simpson, Joe, & Brown, 1997), "second generation" research is grappling with the components of effective AOD treatment (e.g. Broome, Knight, Knight, Hiller, & Simpson, 1997; Dearing, Barrick, Dermen, & Walitzer, 2005; Long, Williams, Midgley, & Hollin, 2000; Simpson, 2004). The literature review is therefore concerned with highlighting those components that will improve the efficiency and effectiveness of AOD treatment.

The study also focuses on generic, yet dynamic, patient-level factors which apply across treatment settings, such as motivation, therapeutic alliance and social support. Other factors, such as organisational concerns, treatment modalities and specific interventions are not examined. Although these are likely to have some impact on retention, research suggests that a variety of interventions are effective and the theoretical perspective guiding AOD treatment is less important than previously supposed (Moyers & Hester, 1999).

Furthermore, there is a lack of intervention-oriented research and literature in the AOD field specific to developing countries, and South Africa in particular (Myers, 2007), with the majority of South African research being epidemiological in nature (Parry, 2005). Research specific to South Africa has predominantly focused on prevalence rates of AOD abuse (e.g. Parry et al., 2002; Parry, Plüddemann, Steyn, et al., 2005) and logistical, linguistic and cultural barriers to AOD treatment (e.g. Myers & Parry, 2005), rather than treatment process factors.

2.2 TREATMENT RETENTION AND COMPLETION

Treatment completion has been mainly conceptualised as the realisation of a time-limited treatment programme (e.g. Fiorentine, 2001; Wickizer et al., 1994) or the meeting of specific treatment goals (e.g. Greenfield et al., 2004). As this study includes patients who have partaken in a variety of both in- and out-patient programmes, treatment completion includes both time-based and/or goal-based definitions, as understood by the treatment programme and individual patient. Treatment retention is necessary for treatment completion to occur, by maintaining a person in treatment for a sufficient period of time. The number of days spent in treatment acts as an indicator of treatment retention in this study.

Research strongly and overwhelmingly suggests that treatment retention is the single most consistent predictor of successful post-treatment outcomes for AOD problems (e.g. Gossop, Stewart, Browne, & Marsden, 2002; McLellan & Hunkeler, 1998; Ravndal et al., 2005; Simpson, 2004; Simpson, Joe, & Brown, 1997; Simpson & Pevoto, 2002), regardless of whether a positive outcome is conceptualised as abstinence from AOD use (Fiorentine, 2001; Gossop et al., 2002; Greenfield et al., 2004; Simpson & Joe, 2004), reduction in AOD use (McLellan & Hunkeler, 1998; Simpson, Joe, & Rowan-Szal, 1997), decreased involvement in criminal activities (Simpson, Joe, & Rowan-Szal, 1997) or improved personal health, relationships and employment status (McLellan, McKay, Forman, Cacciola, & Kemp, 2005). This relationship has been replicated in three national studies funded by the National Institute on Drug Abuse (NIDA) in the USA, which have collectively examined over 65,000 admissions to 272 treatment programmes since the

early 1970s (Simpson & Pevoto, 2002). Similar results have been found in an analysis of residential treatment programmes for women with AOD problems in the USA. In this instance three national studies, equivalent to 75 treatment sites, were evaluated. It was found that patients who did not complete treatment had significantly poorer abstinence rates six to twelve months after treatment than those who did complete treatment, regardless of the length of time spent in treatment. Nevertheless, it was found that the majority of those who did successfully complete treatment required approximately six months or more to do so (Greenfield et al., 2004).

Length of stay in treatment has been found to be positively related to post-treatment outcomes (Hubbard et al., 1997; Simpson, Joe, & Rowan-Szal, 1997). Research suggests that in order for AOD treatment to be effective, residential and outpatients should be retained in treatment for a minimum of three months. Opiate-addicted individuals receiving methadone maintenance, on the other hand, should be treated for a minimum of 12 months (Hubbard et al., 1997; NIDA, 1999; Simpson, Joe, & Brown, 1997; Simpson, Joe, & Rowan-Szal, 1997). Once this time threshold is reached, gains can be consolidated by additional time spent in treatment (Gossop, 2006 in Myers, Harker, Fakier, Kader, & Mazok, 2008; NIDA, 1999). For example, a study of individuals treated for opioid, cocaine and alcohol abuse found that those who remained in treatment for 360 days or longer scored significantly lower on a problem index, composed of measures of drug use and criminality, than those individuals who remained in treatment for less than 90 days (Simpson, Joe, & Rowan-Szal, 1997). Similarly, for patients in long term residential programmes, those who stayed for three months or longer had better outcomes with regard to subsequent AOD use, arrests and employment status (Simpson, Joe, & Brown, 1997). Other research conducted in Australia suggests that although length in treatment is positively associated with improved outcomes (decreased drug use, decreased criminal involvement and employment), it is the progression through treatment levels rather then merely time spent in treatment that best predicts positive outcomes (Toumbourou, Hamilton, & Fallon, 1998).

Simpson, Joe and Rowan-Szal (1997) also found that retention in treatment was the strongest individual predictor of post-treatment outcome when compared to age, severity of drug use, and motivation to enter treatment. However, some of these variables were related to treatment retention, with motivation to enter treatment, frequent session attendance in the early stages of therapy and a good therapeutic relationship with one's counsellor each doubling the chances of retaining an individual in methadone treatment beyond a year.

Dropout from treatment for AOD abuse is often high (Simpson, Joe, Rowan-Szal, & Greener, 1997), with relapse to substance use being common among those individuals prematurely terminating treatment (Simpson, 1979, 1981). Ravndal et al. (2005) found an average completion rate of 40% across 13 inpatient treatment programmes in Norway, with a range of between 20% and 71% for the various treatment programmes. Among outpatients treated for cocaine use, Agosti et al. (1996) reported a 69% drop-out rate. In a review of state-funded AOD treatment programmes across four treatment modalities, Wickizer et al. (1994) reported varying completion rates of between 18% and 75%, for intensive outpatient drug programmes and intensive inpatient alcohol treatment, respectively. This low completion rate for outpatient programmes is of particular concern in the current health care context where it has been estimated that over 90% of AOD treatment is offered on an outpatient basis (McLellan et al., 2005), with a significant number of patients prematurely dropping out of treatment.

It is therefore critical that clients are retained in and complete treatment for AOD abuse, in order to ensure the greatest chance of a successful outcome. The need to identify factors in the treatment process that may aid treatment retention is necessary in order to enable the development of more effective treatment strategies.

2.3 THEORETICAL FRAMEWORK

Numerous theories on the aetiology of problematic AOD use exist (Hesselbrock, Hesselbrock, & Epstein, 1999). Similarly much literature is available with regards to specific treatment techniques, such as social-skills training, motivational interviewing

and cognitive-behavioural interventions. Yet, there is a lack of comprehensive treatment theories, which detail the treatment process and integrate its various components and their interactions (Simpson, 2004). For this purpose, the Texas Christian University (TCU) Treatment Model was developed. It is a comprehensive theoretical model which is specifically concerned with the treatment process for substance abuse, and serves as the theoretical framework for this study.

2.3.1 The Texas Christian University (TCU) Treatment Model

The Texas Christian University (TCU) Treatment Model, developed at the Institute of Behavioral Research (IBR) at the Texas Christian University, is a conceptual framework for the AOD treatment process, signifying how treatment processes/ variables and outcomes are related. It attempts to address the complexity of AOD treatment by considering a plethora of variables, both individual and systemic, within a sequential stage-based model (Simpson, 2004; Simpson & Joe, 2004). The model focuses attention on the sequential stages of the treatment process, and how therapeutic interventions at particular points in time link together to sustain retention and engagement in treatment, ultimately leading to improved functioning during and after treatment. The systemic nature of the model also emphasises that the treatment process consists of more than pure clinical interventions, by directing attention to contextual factors and dynamic processes such as the therapeutic alliance, patient readiness to enter treatment, and the duration of treatment (Simpson, 2004, 2005).

The TCU treatment model has been examined in a diversity of treatment settings, including inpatient, outpatient and methadone maintenance settings, and involving over 10,000 patients from 96 agencies (Simpson, 2004). Multivariate analysis, such as structural equation modelling, has aided in establishing the directional relationship between the various stages of the treatment process and the variables involved, verifying support for the TCU Treatment Model (Joe, Simpson, & Broome, 1999; Simpson & Joe, 2004; Simpson, Joe, Rowan-Szal, & Greener, 1997). Research has demonstrated that more satisfactory scores obtained in an earlier stage of treatment at least double the chances of successfully passing through the next stage (Joe, Simpson, & Broome, 1999;

Simpson & Joe, 2004). The model has been found to be valid with various patient profiles, including British patients (Gossop, Marsden, Stewart, & Kidd, 2003; Gossop, Marsden, Stewart, & Rolfe, 1999), prison populations (Broome, Knight, Hiller, & Simpson, 1996; Simpson, Knight, & Dansereau, 2004), and patients in outpatient methadone maintenance treatment (Simpson & Joe, 2004).

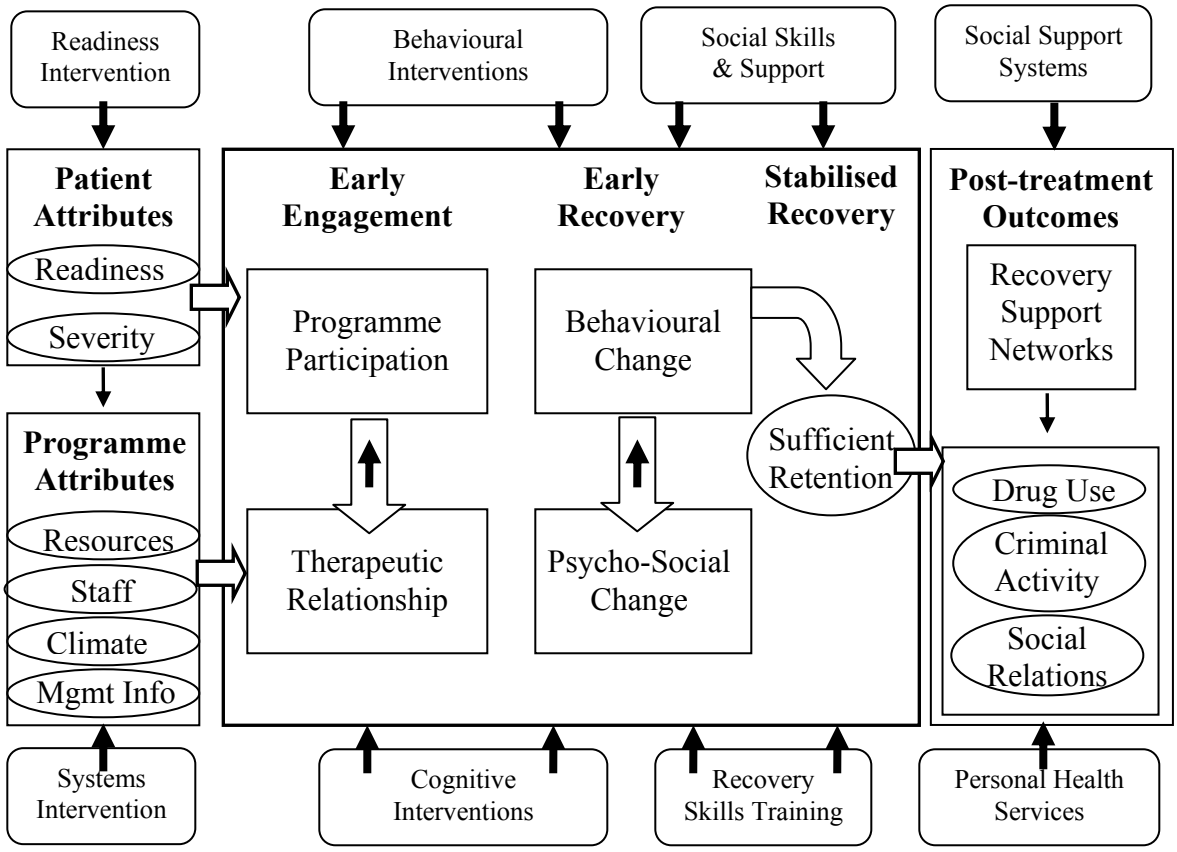

Figure 1: Overview of the TCU Treatment Model (Simpson, 2004)

The sequential stages and components included in the TCU Treatment Model are illustrated in Figure 1. The left margin indicates input factors, including patient and organisational attributes. These are important, as they impact on how people respond to the services offered, and whether they will initially engage in treatment. Major patient attributes include motivation for change, severity of the current AOD problem, psychological well-being, and sociodemographic variables. These variables impact on

engagement with treatment in various ways. For example, severity of AOD related problems influences the appropriate placement (e.g. outpatient vs. inpatient) and intensity of care (Hser, Polinsky, Maglione, & Anglin, 1999), with increasing levels of severity generally requiring more intensive care. Highly motivated patients at intake are also more likely to actively engage in treatment, for example by attending sessions on a regular basis (Simpson & Joe, 2004), leading to subsequent treatment retention and recovery (Joe, Simpson, Greener, & Rowan-Szal, 1999). These patient-level factors and their impact on treatment retention will be discussed in more detail in sections 2.4 and 2.5.

Programme attributes also impact on access to treatment and early retention in treatment. They include the type of treatment (e.g. outpatient, inpatient, therapeutic communities, agonist substitution programmes), resources, staff skill, and management style (Simpson, 2004). Structured programming, high expectations for patients and emphasis on psychosocial treatment have all been linked to better participation in treatment (Moos, King, Burnett, & Andrassy, 1997). In South Africa contextual factors such as affordability, transport costs and geographic accessibility also appear to play a critical role in initial access to treatment and treatment retention (Myers, 2007). Although important, these organisational and contextual factors are not the focus of the current study.

These input factors influence *early engagement* in treatment (Simpson, 2004; Simpson & Pevoto, 2005). Interventions such as motivational interviewing (NIDA, 1999) and induction plans involving family or friends (De Civita, Dobkin, & Robertson, 2000) have been successfully applied in increasing initial motivation and readiness for treatment.

The first stage of treatment, namely *early engagement*, focuses on active engagement with the therapeutic programme, as determined by participation in the programme (for example, measured by session attendance, or psychological engagement), and the building of a good therapeutic alliance with one's therapist. The stage of *early engagement* usually comprises the initial few weeks of treatment. The various factors interact in a dynamic and reciprocal manner. For example, regular session attendance is

more likely to result in a positive therapeutic relationship, although the quality of the therapeutic alliance would also impact on subsequent attendance of sessions. Contingency management techniques, in which incentives are offered for session attendance (Higgins, Alessi, & Dantona, 2002) and improvements in the quality of counselling (Hoffman et al., 1994) are some factors that have been shown to increase levels of participation in treatment.

According to the TCU model, the second major stage of treatment is *early recovery*. This stage involves cognitive, psychosocial and behavioural changes. Strong therapeutic relationships developed during the previous stage of *early engagement* have been shown to double the odds of positive psychosocial functioning (Simpson & Joe, 2004). Improvements in psychosocial functioning may include decreased anxiety and depressive symptoms, and increased decision-making capabilities. Positive psychosocial change in turn impacts favourably on behaviour. Finally, positive behavioural changes, such as decreased substance use, have been found to increase chances of being retained in treatment beyond the minimum threshold. A focus on developing social skills and involving families in treatment is often present at this stage of treatment (Simpson, 2004).

Retention and transition marks the third stage of treatment. It builds on the progress of the previous two stages, aiming to consolidate the psychosocial and behavioural changes achieved. It is concerned with the stabilisation of patients, ensuring that patients have adequate time to integrate cognitive and behavioural changes into their new lifestyle, and to set up appropriate support networks in their environment. It is hoped that in this stage patients are retained beyond the mere minimum time required for effective change, in order to allow sufficient time to prepare for the transition out of the primary treatment programme and to integrate new behaviours into the individual's lifestyle (Simpson, 2004). Interventions for this stage of treatment include, among others, relapse prevention strategies and cognitive restructuring (Marlatt, 1985).

In addition to the stages mentioned above, a number of "wrap-around" and "transitional services" (Simpson, 2004, p.110) are identified as playing an integral role in effective

treatment. Wrap-around services include services that target the patient's family and other sources of social support, which are required during and after treatment; while transitional, or aftercare services may incorporate some step-down care programmes of lower intensity.

From the above discussion it is evident that there are a number of factors which play an important role in the various treatment stages of the TCU treatment model and which ultimately impact on treatment retention.

This research study only focuses on patient-level factors, sidelining broader organisational functioning. In particular it examines a number of factors incorporated in the model, namely motivation, treatment satisfaction, therapeutic alliance, social support, psychological and demographic variables. These variables are discussed in more detail in sections 2.4 and 2.5 below.

2.4. TREATMENT PROCESS FACTORS

The previous section highlighted numerous components that are important in sustaining progress and retention across the various stages of substance abuse treatment. This section focuses on selected treatment process factors, namely the therapeutic alliance, treatment satisfaction, motivation and social support.

2.4.1 Therapeutic alliance

The therapeutic alliance, also referred to as the working alliance, helping alliance, therapeutic bond or counselling rapport (Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000), has been defined in numerous ways. Despite variations in definitions, central constructs include the collaborative element of the relationship between therapist and patient, the affective bond between patient and therapist, as well as their capacity to agree on treatment goals (Connors, Carroll, DiClemente, Longabaugh, & Donovan, 1997; Horvath & Symonds, 1991; Martin et al., 2000).

The quality of the therapeutic relationship is an important predictor of retention and outcome in AOD treatment (Connors et al., 1997; Fiorentine, Nakashima, & Anglin, 1999; Meier, Barrowclough, & Donmall, 2005; Petry & Bickel, 1999; Simpson, Joe, & Brown, 1997; Simpson, Joe, Rowan-Szal, & Greener, 1995). An extensive literature review conducted by Meier, Barrowclough, et al. (2005) highlighted that a strong alliance early in treatment was predictive of treatment retention for AOD use in the majority of peer-reviewed studies. This consistent finding appeared to be independent of the measurement approach used, as a variety of assessment tools and various rater perspectives were employed across the studies reviewed (Meier, Barrowclough, et al., 2005). The review further suggests a link between therapeutic alliance and patient engagement in treatment, mainly operationalised as session attendance and participation. This reciprocal relationship between session attendance and the quality of the therapeutic relationship has been supported in other studies (Joe, Simpson, Greener, et al., 1999; Simpson, Joe, Rowan-Szal, & Greener, 1997), and has been further linked to a reduction in during-treatment drug use (Joe, Simpson, Greener, et al., 1999; Simpson, Joe, Rowan-Szal, & Greener, 1997). Among outpatients treated for alcohol abuse, therapeutic alliance positively predicted treatment participation and reduction in harmful drinking behaviour both during and at 12 months following treatment (Connors et al., 1997). Yet, this result was not replicated amongst aftercare patients, who had already completed intensive treatment. This may be attributed to the fact that this sample had already achieved a reduction in harmful drinking behaviour, and was already preselected in terms of motivation, having recently completed intensive treatment.

In contrast to the strong support for the positive association between therapeutic alliance and retention in AOD treatment, the finding regarding the link between therapeutic alliance and post-treatment outcomes is mixed. Lower levels of counselling rapport have been found to be predictive of worse post-treatment outcomes, such as increased cocaine use (Joe, Simpson, Dansereau, & Rowan-Szal, 2001). Other research has shown that lower levels of counselling rapport were strongly related to increased drug-positive urine tests, criminal activities and arrests (Joe et al., 2001). In contrast, a number of studies have failed to significantly link the patient's view of the therapeutic alliance with

improved post-treatment outcome (Barber et al., 2001; Long et al., 2000). An extensive review found inconsistent results with regards to the relationship between therapeutic alliance and treatment outcomes, other than treatment retention. This review suggested that the time at which the alliance is measured may impact on the results, with alliance measured within the first three sessions possibly influencing patient's early progress in treatment, but inconsistently predicting post-treatment outcomes (Meier, Barrowclough, et al., 2005). In a study of outpatient cocaine users Barber et al. (2001) failed to demonstrate a significant relationship between alliance and outcomes, yet alliance was associated with treatment retention. It is hypothesized that the lack of effect between alliance and outcome may be explained by the restricted range of alliance ratings, with high levels of rapport measured overall.

Some research suggests that the type of treatment employed by therapists may act as a moderating variable in the relationship between alliance and retention (Barber et al., 2001). For example, Simpson and Joe (2004) found that patients who were treated by counsellors using a particular cognitive strategy, called node-link mapping, were twice as likely to record high scores of therapeutic rapport as those who were not exposed to this therapeutic strategy. Therapist style also appears to play a role in the interaction between alliance and retention. For example, Fiorentine et al. (1999) note that perceived empathy or helpfulness of the therapist is associated with treatment engagement, as measured by participation in treatment and completion or duration of treatment. Therapist empathy, in contrast with aggressive confrontation, has been found to have a positive impact on AOD treatment outcomes (Miller, Benefield, & Tonigan, 1993; Moyers & Hester, 1999). Overall, entering and continuation of treatment is highly influenced by therapist's behaviour and intervention early in treatment (Miller, 1985).

With regards to other factors impacting on the therapeutic alliance, a review of literature suggests that patient demographics (including gender, age, race, marital status, and employment) as well as drug use and psychological symptoms, are not associated with the development of a therapeutic alliance (Meier, Barrowclough, et al., 2005). Motivation appears to act as a prerequisite for engagement with treatment, with patient recognition of

their AOD problems predictive of the formation of therapeutic relationships (Broome et al., 1997). Motivation, the availability of social support and a secure attachment style have all been linked to the development of good therapeutic alliances (Meier, Donmall, Barrowclough, McElduff, & Heller, 2005).

Overall, the literature supports the strong positive relationship between high levels of therapeutic alliance and treatment retention, although the direct connection of therapeutic alliance with post-treatment outcome is more uncertain. Nevertheless, therapeutic alliance plays an important part in initially engaging and retaining a patient in treatment. Therapeutic alliance is therefore included as a key variable in the present study, which is expected to impact positively on treatment retention.

2.4.2 Treatment satisfaction

Treatment satisfaction is a subjective measure of the perceived helpfulness of treatment (Zhang, Gerstein, & Friedmann, 2008). It can be defined as the extent to which an individual's expectations regarding treatment are met (Asadi-Lari, Tamburini, & Gray, 2004), and the degree to which the treatment programme is perceived to have met the patient's treatment wants and needs (Marsden, Stewart, et al., 2000).

Satisfaction with treatment for AOD abuse has been found to be positively related to treatment completion and retention (Hser, Evans, Huang, & Anglin, 2004; Simpson, Joe, & Brown, 1997). Satisfaction with treatment has also been positively related to future service use (Carlson & Gabriel, 2001), time in treatment (Chan, Sorenson, Guydish, Tajima, & Acampora, 1997), treatment participation and attendance (Connors et al., 1997; Donovan, Kadden, DiClemente, & Carroll, 2002), reduction in or abstinence from AOD use during treatment (Connors et al., 1997; Donovan et al., 2002), and abstinence from AOD use one year after starting treatment (Carlson & Gabriel, 2001). Zhang et al. (2008) report that high ratings of treatment satisfaction near the time of discharge were related to improvement in drug use one year following treatment (N =3,255 across 62 treatment programmes). This relationship was independent of pretreatment use, treatment duration and other patient characteristics.

In contrast to these positive associations with treatment satisfaction, Rysavy, O'Reilly and Moon (2001) did not find significant positive relations between satisfaction and completion of detoxification for alcohol abuse in a sample of Australian patients. This result may be explained by the small sample size (N =140), as well as the uncertainty as to what scale was used to measure satisfaction. Similarly, McLellan and Hunkeler (1998) did not find a significant association between satisfaction and treatment, although the use of non-standardised satisfaction measures that were not tested for reliability or validity may have impacted on their findings.

Dearing et al. (2005) established that satisfaction with treatment was related to a number of factors, such as higher session attendance, optimistic expectations about therapy and a favourable perception of the working alliance. These in turn predicted a more positive outcome, as measured by the number of abstinent days or drinks per day. Of a number of factors examined Chan et al. (1997) found time in treatment to be most strongly associated with treatment satisfaction. A longitudinal study of 1,939 patients from 36 different outpatient and residential programmes for AOD use, found a significant and strong association between treatment satisfaction, retention and completion, and ultimately treatment outcomes (Hser et al., 2004). The study also highlighted the complex inter-relationships amongst these variables. Intensity of treatment was found to positively impact on satisfaction with treatment, with a greater severity of drug problems at intake associated with both of these variables.

Treatment satisfaction has been linked with therapy attendance, as measured by percent of sessions attended and total number of weeks in treatment. Yet Donovan et al. (2002) reported a discrepancy in that this positive relationship was found for outpatients, but not for aftercare patients, who were being treated for alcohol problems. The same study also did not find a relationship between satisfaction and the therapeutic alliance, which the authors tentatively attribute to the relatively small number of sessions in outpatient therapies. However, satisfaction was strongly associated with positive changes in drinking behaviour.

Overall, satisfaction with treatment is associated with positive behavioural changes, hence providing useful information regarding the quality and effectiveness of substance use services. Satisfaction is becoming an increasingly used measure in assessing the effectiveness of AOD treatment programmes, providing information regarding the perceived effectiveness and acceptability of the programme to potential clients (Chan et al., 1997). Although treatment satisfaction ratings are often used to monitor effectiveness of treatment, their use in AOD treatment has been criticised due to the high levels of compliance and participation that are required during the course of AOD treatment (Simpson, Joe, & Rowan-Szal, 1997). Ratings of treatment satisfaction, however, prove useful in that they provide an indication of commitment to the therapeutic process and may act as a warning signal to potential dropout from treatment (Donovan et al., 2002). The current study therefore expects to find a positive association between treatment satisfaction and treatment retention. Based on the literature reviewed above, a positive relationship between treatment satisfaction and the therapeutic alliance is also envisaged.

2.4.3 Treatment motivation

Motivation can be regarded as "the probability of engaging in behaviors that are intended to lead to positive outcomes" (Miller, 1985, p.99). It was originally conceptualised as an inherent trait, resulting in the placement of blame on the patient for unsuccessful treatment (Miller, 1985). Yet, in reviewing theory and research regarding motivation for treatment among individuals with alcohol problems, Miller (1985) found that patient characteristics play an inconsistent role, with environmental and therapist attributes being more prominent. He therefore reconceptualised motivation as a "dynamic interpersonal process involving therapist and environmental as well as client determinants" (p.100).

Simpson and Joe (1993) conceptualise treatment motivation as consisting of three components, which present progressive levels of change. The first element is problem recognition, which is characterised by an awareness of the negative consequences arising from problematic AOD use. The second component, desire for help, reflects recognition of the need for change as well as a wish to seek assistance for AOD related problems.

Finally, treatment readiness corresponds to a commitment to treatment for AOD problems.

This sequential conceptualisation of the components of motivation was replicated in a study involving individuals with AOD problems attending soup kitchens in inner-city New York. Problem recognition was found to significantly predict desire for help, which in turn had a strong effect on treatment readiness. Furthermore, problem recognition also has a strong indirect effect on treatment readiness which was mediated through desire for help (Nwakeze, Magura, & Rosenblum, 2002). It is important to note that these components are concerned with internal motivation, rather than external motivation which may be present in coerced treatment, such as that which is legally enforced (Joe, Broome, Rowan-Szal, & Simpson, 2002).

Motivation to enter treatment has been found to have a positive impact on the client-therapist alliance (Joe, Simpson, Greener, et al., 1999; Meier, Donmall, et al., 2005) and on treatment participation (Simpson et al., 1995; Simpson, Joe, Rowan-Szal, & Greener, 1997). Better therapeutic relationships in turn have been found to be associated with lower levels of drug use during treatment, as well as better retention in treatment (Simpson, Joe, Rowan-Szal, & Greener, 1997). Higher levels of patient motivation have been strongly linked to more frequent session attendance within the first three months of outpatient methadone maintenance treatment (Simpson et al., 1995).

Recognition of problems with AOD use has been shown to be predictive of the formation of therapeutic relationships, suggesting that motivation acts as a prerequisite for engagement with treatment (Broome et al., 1997). Among a sample of inmates with AOD problems, levels of motivation predicted therapeutic engagement, even after other factors were controlled for. Furthermore, treatment was more effective for inmates who were more highly motivated at each stage of treatment (as per the TCU treatment process model), suggesting that motivation is important throughout the treatment process and not just initially (Welsh & McGrain, 2008). This is consistent with Simpson's (2004) assertion that although motivation to enter treatment is essential, motivation is

increasingly regarded as "a dynamic 'state' that must be maintained throughout treatment" (p.106). In this study the various components of motivation are therefore expected to be positively related to treatment retention, as well as to the therapeutic alliance.

2.4.4 Social support

Researchers have conceived of social support as consisting of two broad domains, namely *structura*l and *functional* social support (Wasserman, Stewart, & Delucchi, 2001). Structural support refers to the quantity of social ties, while functional support relates to the availability of positive behaviours from others, such as for example affection and tangible or material support. These domains can be further subdivided into *general* and *abstinence-specific* social support. Within the structural domain, general structural support refers to social connectedness, while abstinence-specific structural support alludes to a proportionally lower number of AOD users within an individual's social network. General functional support in turn refers to assistance from others, whether emotional or material, that does not specifically address AOD use. Abstinence-specific functional support relates to social influences aimed at encouraging abstinence, for example assisting a patient to remain in treatment (Wasserman et al., 2001).

Peer and family relations at admission have been found to have an impact on treatment outcomes, with substance use among peers (Goehl, Nunes, Quitkin, & Hilton, 1993), as well as conflictual family relations (Knight & Simpson, 1996), being associated with greater relapse rates and poorer outcomes. Lower levels of functional social support have also been linked to greater symptoms of psychological distress, both at intake and six months later; as well as greater severity of AOD use at six month follow-up (Dobkin, De Civita, Paraherakis, & Gill, 2002). Greater perceived functional social support at intake positively predicts treatment retention and completion, with clients with lower levels of functional social support being significantly more likely to drop out of treatment (Dobkin et al., 2002). The availability of social support has also been linked with the ability to establish good therapeutic alliances within treatment (Meier, Donmall, et al., 2005).

Social support therefore appears to not only have an influence on outcomes but also impacts on the treatment process itself.

Research suggests that abstinence-specific support, whether structural or functional, is a better predictor of AOD treatment outcomes than general support (Wasserman et al., 2001). Satre, Mertens, Areán and Weisner (2004) found that besides length of stay in treatment, abstinence-specific functional support was most predictive of AOD abstinence five years post-treatment. Similarly, Goehl et al. (1993) reported that although overall support improved patients' subjective sense of well-being, it did not decrease illicit drug use during methadone maintenance treatment. However, the presence of drug-using significant others was predictive of a patient's illicit drug use during treatment. This is consistent with Knight and Simpson's (1996) finding that peer deviance, as measured by AOD use, involvement in illegal activities and lack of support for treatment, has been related to greater drug use and illegal activity during treatment. Although abstinence-specific social support, as measured by support of the patient's abstinence and an absence of AOD problems among the support network, is a critical factor in preventing relapse post-treatment (Broome, Simpson, & Joe, 2002; Miller, Ninonuevo, Hoffmann, & Astrachan, 1999), it also plays an important role during treatment (Knight & Simpson, 1996). This study therefore specifically focuses on abstinence-specific social support. It is expected that this form of social support will be positively associated with retention in AOD treatment.

2.4.5 Interaction among treatment process factors

The treatment process factors mentioned above interact with each other and thereby moderate and confound the overall effect on treatment completion. For example, motivated clients have been found to remain in treatment longer, which in turn results in greater session attendance and consequently better therapeutic rapport (Simpson et al., 1995). Furthermore, pretreatment motivation is predictive of session attendance, which in turn engages in a reciprocal relationship with therapeutic alliance (Simpson, Joe, Rowan-Szal, & Greener, 1997). Similarly, the positive association between treatment satisfaction and post treatment outcomes among alcohol abusers has been clarified by considering

client engagement variables, such as the quality of the therapeutic alliance (Dearing et al., 2005). Clients with better social support and motivation also appear to have a greater likelihood of developing good rapport with their counsellors than clients who lack these attributes (Meier, Donmall, et al., 2005).

Using path analysis in a longitudinal study design, Hser et al. (2004) highlighted the complex relationships between various treatment process measures and outcome. They found that greater service intensity and treatment satisfaction were both independently associated with treatment completion and retention, which was in turn associated with success at nine month follow-up. Other variables, such as being male, older and having greater AOD problem severity, were in turn related to greater treatment intensity and satisfaction.

2.5 DEMOGRAPHIC AND PSYCHOLOGICAL VARIABLES

Research suggests that treatment process factors play a more central role in predicting treatment retention than demographic variables do (Simpson, Joe, & Brown, 1997). Nevertheless, it may be useful to consider how demographic and psychological variables may moderate the relationship between treatment process factors and treatment retention.

2.5.1 Gender

Research findings regarding the impact of gender on treatment completion and retention are mixed. Wickizer et al. (1994) note that the lower proportion of women in most studies and the greater percentage of men coerced into AOD treatment weakens a number of gender-related studies. While a number of studies suggest that women are less likely to complete AOD treatment than men are (Boylin, Doucette, & Jean, 1997), and are less likely to be retained in treatment (Hser et al., 2004; McCaul, Svikis, & Moore, 2001), other studies suggest the opposite (Maglione, Chao, & Anglin, 2000). In a study of methamphetamine users men were found to be significantly more likely to drop out of treatment before 90 days than women were (Maglione et al., 2000). In a study of adolescent substance users it was found that being male was a risk factor for relapse following treatment, speculated to be a result of the “self-stigma hypothesis” in which

females experience more stigma than males do due to their AOD use, thereby deriving additional benefit from improved treatment outcomes (Latimer, Winters, Stinchfield, & Traver, 2000, p.171). In contrast, other studies suggest that gender has no impact on treatment completion (Agosti et al., 1996; Matthews & Lorah, 2005).

In a review of 38 studies examining the effects of AOD treatment programmes for women, it was found that providing services specific to women, such as child care facilities, prenatal care and supplemental services that address topics relevant to women, has a positive relation with treatment completion (Ashley, Marsden, & Brady, 2003). Other researchers note that traditional treatment approaches such as Alcoholics Anonymous (AA), which emphasise powerlessness, are not applicable to marginalised groups such as females and minority groups who lack access to power (Agosti et al., 1996; Matthews & Lorah, 2005). Women-focused AOD treatment has been related to retention in treatment, decreased use of substances, and HIV risk reduction. It has also been demonstrated that incorporating multifamily therapy into the treatment programme can increase the duration in AOD treatment for women. It is hypothesised that by attending treatment family members signal their support for the patient remaining in treatment, while demonstrating that they are effectively managing the home without the patient's presence (Boylin et al., 1997).

2.5.2 Race

Although race is a socially constructed concept, it is important to consider how it may impact on the AOD treatment process through the meanings attached to it by society. This is particularly relevant in South Africa where discrepancies in AOD service access amongst the various racial groups mirror the consequences of an apartheid legacy (Myers & Parry, 2005).

Research has reported mixed findings with regards to the effect race has on treatment completion. Some studies found race to be unrelated to treatment retention (Matthews & Lorah, 2005), while others have for example found shorter retention for minority racial

groups, including American Indians[2] and African-Americans, in treatment (Agosti et al., 1996; Evans, Spear, Huang, & Hser, 2006; McCaul et al., 2001; Saxon, Wells, Fleming, Jackson, & Calsyn, 1996). Evans et al. (2006) also note that American Indians received fewer individual counselling sessions than individuals from other race groups which may have impacted their retention in treatment. Wickizer et al. (1994) reported that the effect of race on treatment completion differed according to treatment modality, with for example Whites being more likely to complete outpatient AOD treatment, but less likely to complete inpatient treatment when compared to other ethnic groups. The authors suggest that the cultural fit between patients and the treatment programme may be an important consideration in successful retention. It has also been suggested that race has less of an effect on treatment retention than a client's majority or minority status within a treatment programme (Brown, Joe, & Thompson, 1985).

2.5.3 Age

The majority of studies suggest that older individuals are more likely to complete AOD treatment than their younger counterparts (Agosti et al., 1996; Ravndal et al., 2005; Wickizer et al., 1994), or are retained in treatment for a longer time period (Satre et al., 2004; Saxon et al., 1996). Research conducted by Simpson, Joe and Rowan-Szal (1997) has shown that individuals older than 35 years of age were twice as likely to have a favourable post-treatment outcome, as determined by measures of drug use and criminality. Among a group of methamphetamine users, older patients were less likely to drop out of treatment than their younger counterparts (Maglione et al., 2000).

Chan et al. (1997) also found a modest but positive relationship between age and treatment satisfaction. It has been hypothesised that older patients may be more amenable to treatment than younger patients due to greater health concerns and increasing discontent with their addict life-styles (Saxon et al., 1996). Overall the literature suggests that age will be positively associated with treatment retention and completion in the current study.

[2] The terms "White, Coloured, Black, Asian, African American and American Indians" are used for their historical significance, and do not signify inherent characteristics. Their use is not meant to condone racial categorisation.

2.5.4 AOD use severity

The majority of research suggests that a lesser severity of drug abuse is related to a more favourable outcome for AOD treatment (Maglione et al., 2000; Simpson, 2004; Simpson, Joe, & Rowan-Szal, 1997). Those with more severe AOD problems at intake generally require a greater intensity and length of treatment in order to achieve the same benefits as patients with less severe AOD use at admission (Simpson, 2004). Yet patients with more severe AOD problems have been found to be more satisfied with treatment six months after starting treatment (Chan et al., 1997).

With regards to retention in AOD treatment, findings on the role of severity of AOD use are equivocal. Methamphetamine users who reported daily use or primarily administered the drug through injection were 1.5 times more likely to drop out of treatment before 90 days than those individuals who smoked or snorted the drug, or used it on a non-daily basis (Maglione et al., 2000). Wickizer et al. (1994) reported that those patients with a longer history of substance abuse were more likely to complete treatment. In contrast, Agosti et al. (1996) found that those individuals who began using substances at an earlier age than their counterparts were more likely to drop out of treatment. McCaul et al. (2001) reported that substance-use status played no role in treatment retention, when comparing patients who used alcohol only, drugs only or a combination of both.

Severity of AOD use has been conceptualised as a longer duration of AOD use, with an earlier age of onset, in a number of studies (e.g. Buchmann et al., in press; Fiorentine & Hillhouse, 2000; Pickens et al., 2001). This study therefore uses the age of first drug or alcohol use as an indicator of AOD use severity.

2.5.5. Psychological functioning: depression and anxiety

The co-occurrence of substance use and psychiatric disorders is common (Abou-Saleh & Janca, 2004; Skinstad & Swain, 2001). For example, a national survey in the United States involving over 42,000 respondents demonstrated that almost 19% of past year drug users experienced a major depression (Grant, 1995). Other studies suggest that comorbidity for a range of mental health problems and AOD use lies between 20 and

50% (Menezes et al., 1996; Regier et al., 1990). This comorbidity suggests that treatment of patients requires greater cross-disciplinary collaboration as well as an integrated assessment and treatment approach (Brems & Johnson, 1997).

The relationship between psychopathology and substance use is complex, as the co-occurrence can be understood in a number of ways. While substance use may lead to the development of psychiatric symptoms (the toxicity hypothesis), psychopathology may also increase the severity of AOD use as promulgated by the self-medication hypothesis. Comorbidity may also be coincidental, or caused by some third common factor (Grant & Dawson, 1999; Meyer, 1989 in Brady, Halligan, & Malcolm, 1999). This relationship is further complicated by the fact that substance use and withdrawal can mimic various psychiatric symptoms and disorders, complicating accurate diagnosis (Brady et al., 1999).

Regarding the impact of comorbid psychiatric diagnoses on treatment completion, Saxon et al. (1996) did not find any association between psychopathology and treatment retention. Lifetime depression was not associated with AOD treatment completion among a sample of patients enrolled across 33 outpatient facilities (Miller et al., 1999). The authors did, however, find that patients with comorbid depressive symptoms were more likely to engage in peer support groups following discharge. Overall though, lifetime depression accounted for less than 2% of the variance in post-treatment outcomes. Similarly, Agosti et al. (1996) found no association between retention in AOD treatment and a history of depression. In contrast, Joe, Brown and Simpson (1995) report that patients with depression or anxiety frequently become more involved in treatment and tend to be retained in AOD treatment for longer than those patients without significant psychological distress. Those patients with higher scores on measures of depressive symptoms, as measured using the BDI and SCL-90-R, are also likely to be more satisfied with the treatment received (Chan et al., 1997).

Depression has been found to have a direct effect on the first phase of motivation for change, namely problem recognition (Nwakeze et al., 2002). Depression at AOD treatment intake has also been linked to more positive treatment outcomes among

patients. However, this result was only found for patients with limited treatment involvement during the year preceding follow-up, providing support for the role of treatment in alleviating depressive symptoms (Rao, Broome, & Simpson, 2004).

The contradictory findings about the impact of psychological distress on retention and outcome have been attributed to variations in the measurement techniques employed by different studies (Rao et al., 2004), with the authors advocating dimensional measures above categorical measures (such as the presence or absence of a disorder) for predictive modelling.

2.6 CONCLUSION

After highlighting the restrictions of the literature review, research regarding treatment completion and time in treatment was discussed. The literature has consistently found that treatment retention is the most consistent predictor of successful post-treatment outcomes, with outcomes improving as time in treatment increases. The TCU treatment model, which provides the theoretical framework for the study, was then discussed. It conceptualises the treatment process for substance abuse, detailing how the various components and stages of treatment link together over time to sustain progress and retention in treatment, ultimately leading to improved outcomes.

The literature regarding selected treatment process factors incorporated in the TCU treatment model, psychological and demographic variables was then examined. Overall the literature appears to suggest that positive treatment experiences, rather than inherent individual characteristics, such as a patient's demographics, have the greatest impact on treatment retention and positive outcome (Fiorentine et al., 1999). The majority of literature suggests that therapeutic alliance, treatment satisfaction, motivation, and social support are positively associated with treatment retention and completion, and therefore this is what we expect to find in the present study. In contrast, past research has reported mixed findings regarding the impact gender, race, substance use severity, depression and anxiety have had on treatment retention. These variables are therefore not expected to have any significant impact on treatment completion or time in treatment. A consistent,

moderate positive correlation has been found between treatment retention and age, and a similar result is expected in the present study. These hypotheses are discussed more fully in section 3.2.

The next chapter explores the research methodology used in the study. Research aims and hypotheses are presented, followed by discussions of the research design, sample, measuring instruments, data analysis and ethical considerations.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

Based on the literature review, this chapter begins with an outline of the aims of the study. The research design is then discussed, followed by an exploration of the sample and sampling procedures used. The measuring instruments are presented, and scrutinised with regards to their validity and reliability. Finally, procedural concerns, method of data analysis and ethical considerations are outlined.

3.2 RESEARCH AIMS

This study aims to examine the factors associated with treatment retention for AOD abuse. In particular, the aims and hypotheses are as follows:

Aim 1: To describe the relationship between treatment process factors (treatment motivation, treatment satisfaction, social support and therapeutic alliance) and treatment retention for AOD abuse.

Hypothesis 1: The quality of the therapeutic alliance, treatment satisfaction, degree of social support and treatment motivation are all positively associated with treatment completion.

Hypothesis 2: The quality of the therapeutic alliance, treatment satisfaction, degree of social support and treatment motivation are all positively associated with time in treatment.

Aim 2: To identify demographic variables associated with treatment retention.

Hypothesis 3: Race, gender and AOD use severity have no significant association with treatment completion.

Hypothesis 4: Race, gender and AOD use severity have no significant association with time in treatment.

Hypothesis 5: Age is positively associated with treatment completion.

Hypothesis 6: Age is positively associated with time in treatment.

Aim 3: To identify psychological variables associated with treatment retention.

Hypothesis 7: Depression and anxiety have no significant association with treatment completion.

Hypothesis 8: Depression and anxiety have no significant association with time in treatment.

Aim 4: To examine the relationship between the various treatment process factors (treatment motivation, treatment satisfaction, social support and therapeutic alliance).

Hypothesis 9: Therapeutic alliance, treatment satisfaction, social support and motivation are positively associated with each other.

3.3 RESEARCH DESIGN

This research study is located within a positivist paradigm, as it involves secondary data analysis of a section of unanalysed data collected by a researcher at the Medical Research Council's (MRC) Alcohol and Drug Abuse Research Unit. The data was collected by means of a cross-sectional survey.

A quantitative methodology is appropriate to the study, as it aims to provide a representative overview of the factors impacting on treatment completion for AOD treatment among disadvantaged communities in the Cape Town metropole. Although a quantitative design is not as conducive as a qualitative design to a complex, in-depth and

holistic examination of a topic, it does have the ability to make generalisable comparisons to the population from which the sample was drawn (Durrheim, 2006). The availability of data based on the use of a cross-sectional survey, containing reliable and valid measures, is conducive to a quantitative approach for this study. Furthermore, prior research into factors associated with treatment completion has been predominantly quantitative (e.g. Gossop et al., 2002; Greenfield et al., 2004; Joe et al., 2001), supporting the suitability of the research questions to a quantitative methodology.

The research study is both exploratory and descriptive in nature. It is exploratory in the sense that there is a lack of available research surrounding the research topic in a South African context. It is descriptive as the study aims to produce accurate observations of the associations of treatment process factors, demographic and psychological variables with treatment completion and time in treatment (Durrheim, 2006).

3.4 SAMPLE

3.4.1 Sample characteristics

The sample consists of 434 individuals from historically disadvantaged communities in the Cape Town metropole who have previously entered treatment for AOD problems. Subjects had to meet a number of criteria in order to be included in the study. These included being at least 18 years of age, earning less than R2500 per month from legal sources, identifying themselves as either Black African or Coloured, having a substance-related disorder as classified in the DSM-IV-TR (APA, 2000), and providing written, informed consent to participate (Myers, 2007). Altogether the researcher from the MRC obtained 989 completed questionnaires. For the purposes of this study, however, only those individuals who accessed AOD treatment in the 12 months prior to the study will be considered, resulting in a sample size of 434. Access to treatment was defined as the completion of detoxification (if required) and having attended at least two treatment sessions. The characteristics of the final sample are depicted in tables 1, 2 and 3.

Table 1 Demographic information for the overall sample

Variable	*N*	*n*	*%*
Gender	434		
Male		236	54.4
Female		198	45.6
Race	434		
Coloured		213	49.1
Black/ African		221	50.9
Level of Education	434		
Less than Std.8/ Grade 10		100	23.0
Std.8-9/ Grade 10-11		175	40.3
Matric or above		159	36.6
Relationship Status	434		
Boyfriend/ Girlfriend		268	61.8
Single		62	14.3
Cohabiting with Boy/ Girlfriend		43	9.9
Divorced		23	5.3
Married		19	4.4
Separated		18	4.1
Widowed		1	.2
Language Most Comfortable Speaking	434		
Xhosa		211	48.6
English/Afrikaans		113	26.0
English		74	17.1
Afrikaans		26	6.0
Zulu		7	1.6
Sesotho		3	.7
Living Space	434		
Home of family member		285	65.7
Someone else's home		70	16.1
Shack, outbuilding, wendy house		45	10.4
Own home/flat		23	5.3
Hostel		9	2.1
Abandoned building/ vacant plot		2	.5

Table 1 Demographic information for the overall sample continued

Variable	*N*	*n*	*%*
Legal Income in Last Month	434		
Less than R500		216	49.8
R501-1000		85	19.6
R1001-2500		133	30.6
Family History of Substance Abuse	434		
No		219	50.5
Yes		215	49.5

Of the overall sample of 434 individuals, 298 completed their previous admission to AOD treatment. The sample consists of almost equal proportions of male (n =236) and female (n =198), as well as Black African (n =221) and Coloured (n =213) individuals. Participants can be described as consisting of individuals who have a low socio-economic status, with almost half legally earning less than R500 per month. Furthermore, the individuals are young, with an average age of 25 (M =25.0, SD =5.0). The average years of education are 11 (M =10.56, SD =1.57), with only 36.6% of the sample having an education equivalent to Matric or higher (see table 2). Almost half of the sample (49.5%) has a family history of substance abuse.

Table 2 Age and years of education for the overall sample

Variable	*N*	*M*	*Mdn*	*SD*	*Min*	*Max*
Age	434	25.0	25.0	5.0	16.0	53.0
Years of education	434	10.56	11.0	1.57	5.0	15.0

With regards to the type of substances used, cannabis appears to be the most popular substance amongst the overall sample, with 63.8% using it on a daily basis. Over a third of the sample also uses alcohol, Mandrax and methamphetamine several times a week.

Table 3 Types of substances used by the overall sample

Substance	"Several times per week"	"Daily use"
Cannabis	71.4% (310)	63.8% (277)
Alcohol	40.3% (175)	31.6% (137)
Mandrax	36.6% (159)	32.3% (140)
Methamphetamine	35.9% (156)	27.2% (118)
Crack	23.3% (101)	16.4% (71)
Heroin	16.1% (70)	14.3% (62)
Cocaine powder	3.0% (13)	3.0% (13)
Ecstasy	3.0% (13)	1.4% (6)
Tranquilisers	0.9% (4)	0.9% (4)
Pain medication	0.5% (2)	0.2% (1)*
Total (N)	**434**	**434**

*N =433

3.4.2 Sampling procedure

In order to ensure a representative sample of AOD problem users from historically disadvantaged areas of Cape Town, two residential areas from each of the six sub-structures of the Cape Town metropole were selected. In order to be selected the area had to consistently appear in the South African Community Epidemiology Network on Drug Use's (SACENDU) list of top 10 residential areas for AOD problems, or be identified by key informants as an area with high levels of AOD abuse. The areas also had to be classified as Black or Coloured areas under apartheid. Recruitment areas from which the sample was drawn included: Atlantis, Dunoon, Delft, Eersterivier, Gugulethu, Khayelitsha, Langa, Lowandle, Macassar, Mitchell's Plain, Retreat, and Wallacedene (Myers, 2007).

As substance users are a relatively inaccessible population, snowball sampling was used to identify participants. Initially, subjects at non-profit substance abuse treatment facilities were identified, as clients from historically disadvantaged communities are more likely to attend non-profit as opposed to for-profit treatment centres. These subjects in turn referred the data collectors from the MRC on to other individuals until the desired

sample size had been obtained and participants adequately represented the 12 recruitment areas mentioned above. The limitations of snowball sampling include possible response bias and the impact of external factors on the relationships between participants. Response bias was minimised by obtaining a response rate of 98.3% which is well over the recommended cut-off. In order to address the impact of confounding variables, equal proportions of males and females, as well as Black African and Coloured subjects were sampled by the researcher from the MRC (Myers, 2007).

3.5 MEASURING INSTRUMENTS

Two questionnaires were employed in order to obtain the relevant data, namely a brief screener and the Access to Treatment Questionnaire (ATQ). The brief screener was used to determine whether respondents were eligible to participate in the study based on the criteria listed in section 3.4.1. The ATQ was constructed by the researcher from the MRC, and is made up of both existing standard questionnaires as well as scales constructed for the purpose of the original study. This study only uses the domains of the ATQ relevant for the secondary-data analysis, namely: utilisation of substance abuse treatment services (which asks questions relating to the use, type, frequency, amount and completion of treatment), demographic and psychological characteristics, treatment motivation, social support, counsellor rapport and treatment satisfaction. The ATQ incorporates many of the scales used in the TCU's Client Evaluation of Self and Treatment (CEST) questionnaire to measure several of these domains.

More specifically, the CEST consists of 16 scales which include scales on counselling rapport, treatment satisfaction, social support, motivation and psychological functioning. Reliability and construct validity for the CEST was established by studying a national sample in the USA of 1,702 clients from 87 programmes (Joe, Broome, Rowan-Szal, & Simpson, 2002). In testing a comprehensive version of the TCU Treatment Model (Simpson & Joe, 2004), the coefficient alpha reliability was at least 0.75 for those treatment process factors included in the study.

3.5.1 Internal consistency of the measuring instruments

Internal consistency reliability is used to assess the consistency or stability of the scales included in this study. Cronbach's alpha, an indicator of internal consistency reliability, in essence averages all correlations for the items contained within a scale (Cozby, 2004). Cronbach's alpha for the various scales are depicted in table 4. With regards to those scales for which the researcher obtained composite scores from the MRC, as opposed to raw data for each item of the scale, the co-efficients from the original, larger sample (*N* =989) are provided for the main study.

Table 4 Internal reliability of measurement scales

Scale	Number of items	Cronbach's Alpha	*N*
TPQ (Treatment Perceptions Questionnaire)	10	.93	434
TCU Counselling Rapport	13	.97	434
TCU Treatment Satisfaction	7	.89	434
TCU Depression	6	.92	989
TCU Anxiety	7	.92	989
TCU Social Support	9	.77	989
TCU Problem Recognition	9	.86	989
TCU Desire for Help	6	.86	989
TCU Treatment Readiness	8	.68	989

For the purposes of this study a Cronbach's alpha of .7 or above was considered reliable, as recommended by Kline (1993). The majority of scales have a reliability co-efficient well above the cut-off of .7. However, TCU treatment readiness is slightly below this cut-off, with .68 obtained for the main study. Although this is not a large discrepancy, it should be kept in mind when analysing the results of the study.

3.5.2 Treatment motivation

The TCU motivation scales were used to measure motivation for treatment. They consist of three subscales measuring the components of motivation, namely problem recognition (PR), desire for help (DH) and treatment readiness (TR).[3] PR is based on nine items and ascertains the extent to which patients perceive problems and external pressures pertaining to their AOD use. The six-item DH scale assesses general interest in accessing help for dealing with AOD problems. Treatment readiness is measured by eight items that assess commitment levels and expectations about how helpful treatment will be (Joe et al., 2002; Simpson & Joe, 1993; Simpson, Joe, Rowan-Szal, & Greener, 1997). All items are measured by a 5-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). The scores are averaged for each subscale, and then rescaled so that they range from 10 to 50. Higher scores indicate greater degrees of problem recognition, desire for help and readiness for treatment (Joe et al., 2002).

The TCU motivation scales have demonstrated good construct validity across a variety of settings involving AOD users, including studies of a soup kitchen population (Nwakeze et al., 2002), minority groups such as African Americans (Longshore, Grills, Anglin, & Annon, 1997) and in a Dutch sample of AOD users (De Weert-Van Oene, Schippers, De Jong, & Schrijvers, 2002). Coefficient alpha reliability for the three subscales has been found to be sufficiently high in a number of studies ranging from .72 to .89 (Joe, Simpson, Greener, et al., 1999; Longshore et al., 1997; Simpson et al., 1995; Simpson & Joe, 1993; Simpson & Joe, 2004; Simpson, Joe, & Rowan-Szal, 1997; Simpson, Joe, Rowan-Szal, & Greener, 1997). Cronbach alpha co-efficients obtained for this study were also sufficiently high, ranging from .68 to .97 across the three scales.

[3] Items E4 a- i comprise the PR scale; E5 a-d,f,g the DH scale; and E5 h-o the TR scale in the ATQ (see appendix).

3.5.3 Psychological functioning: depression and anxiety

The TCU depression and anxiety scales were included in the ATQ as measures of psychological functioning.[4] For both the 6-item depression and 7-item anxiety scales responses are ranked on a 5-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (5). The responses are averaged for each scale and then transformed so that they range from 10 to 50, with higher scores indicating greater levels of depression and anxiety (Joe et al., 2002).

The TCU depression scale has been validated against the Beck Depression Inventory (Joe, Knezek, Watson, & Simpson, 1991) as well as the SCL-90 Depression Scale (Simpson, Knight, & Ray, 1993), while the TCU anxiety scale has demonstrated good validity (r =.74) against the SCL-90 anxiety scale (Simpson et al., 1993). The depression scale has demonstrated high alpha reliabilities between .75 and .82 (Joe et al., 1991; Simpson et al., 1995) and a test-retest reliability of .76 (Knight, Holcolm, & Simpson, 1994 in Joe et al., 2002). Similarly the anxiety scale has also shown high alpha reliability (.82) and good test-retest correlation (.79) (Simpson et al., 1993). For this study, alpha reliabilities equalled .92 for both scales.

3.5.4 Social support

The TCU social support scale measures the extent to which people in the patient's social network support abstinence from AOD use and engagement in AOD treatment (Joe et al., 2002; Simpson, 2001).[5] The nine items that constitute the scale rank responses on a 5-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). Responses are averaged and then transformed so that they range from 10 to 50, with higher scores indicating a greater degree of abstinence specific support. Previous studies report good internal reliability for this scale with the alpha co-efficients ranging between .75 and .95 (Joe et al., 2002; Simpson, 2001). An alpha co-efficient of .77 was obtained for this study.

[4] Items F4 a-f constitute the TCU depression scale; and items F4 g-m comprise the TCU anxiety scale in the ATQ (see appendix).

[5] The TCU social support scale consists of items E5 p-x in the ATQ (see appendix).

3.5.5 Treatment satisfaction

The Treatment Perceptions Questionnaire (TPQ) is a 10-item scale developed specifically to measure patient satisfaction with treatment for AOD use problems (Marsden, Stewart, et al., 2000).[6] The TPQ items can be subdivided into two 5-item subscales concerning perceptions of staff and the treatment programme, respectively. Each item is measured on a 5-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). The score was obtained by summing the item weights across the ten items, once the negatively worded items were reversed. The TPQ has been shown to have good construct and discriminant validity, as well as good internal reliability and acceptable levels of test-retest reliability (Marsden, Stewart, et al., 2000). Testing in Italy, Spain and Portugal similarly demonstrated satisfactory levels of internal and test-retest reliability (Marsden, Nizzoli, et al., 2000). For this study the TPQ obtained an alpha co-efficient of .93.

3.5.6 Therapeutic alliance

Therapeutic alliance was measured by the 13-item TCU Counseling Rapport scale, which incorporates items measuring constructs such as the collaborative and affective bond between patient and therapist, as well as their capacity to agree on treatment goals.[7] It has been shown to have high alpha reliability of .92 on a sample of over 1,700 patients from 87 programmes (Joe et al., 2002). Each item is measured on a 5-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). After reversing the negatively worded items, an average is calculated and then rescaled so that final scores range from 10 to 50. The co-efficient alpha reliability for this study was .97.

3.5.7 AOD use severity

The age of first alcohol or drug use was employed as a measure of AOD use severity in the present study. An earlier onset of alcohol or drug use has been linked to greater AOD-related difficulties later in life (e.g. Grant & Dawson, 1997, 1998; Winters & Lee, 2008). This has led to the age of onset being used as measures of AOD use severity in a number

[6] Items G2 a-j constitute the TPQ in the ATQ (see appendix).

[7] The TCU counselling rapport scale is measured by items G4 a-n in the ATQ (see appendix).

of studies (e.g. Buchmann et al., in press; Pickens et al., 2001). This study therefore utilises the age of first drug or alcohol use as an indicator of AOD use severity.

3.6 PROCEDURE

As this study involves secondary data analysis, information regarding the methodology and procedure of the original study had to be obtained from the primary researcher at the MRC. Access to her methodology section, as well as continued contact ensured the clarification of necessary concepts and information required.

Prior to the gathering of data, the ATQ was pilot-tested among 40 AOD users. Face-to face interviewing allowed the fieldworkers to identify problematic items, which were adjusted accordingly, in order to eliminate misunderstandings and minimise 'neutral' responses. Pilot-testing also allowed the reliability of scales contained in the ATQ to be established for a South African context.

Fieldworkers, who were fluent in at least two of the three languages in the Western Cape and had been trained in data collection procedures, identified, screened and interviewed respondents. All in-patient and outpatient non-profit substance abuse treatment centres in the Cape Town metropole were also contacted and their support obtained. Subsequently, counsellors from these facilities were trained to identify possible subjects by using the brief screener. This information was passed onto the fieldworkers, with the written consents of the recruits. Face-to-face interviews were conducted with all participants who agreed to participate. Time-line follow back (TLFB) procedures were used to improve the accuracy of recall data (Sobell, Sobell, & Ward, 1980), as some measures in the questionnaire relied on retrospective information.

3.7 DATA ANALYSIS

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS). The available data was initially inspected to ensure that the researcher understood the manner in which it had been coded. It was also examined for missing data and errors in coding. Concerns and queries were clarified with the contact at the MRC. Composite

scores were calculated for the applicable scales, taking into consideration reversal of scores for negatively worded items.

Data was tested for assumptions of normality using the Kolmogorov-Smirnov test, while homogeneity of variance was assessed using Levene's test. For both treatment completers and non-completers, the relevant data violated the assumptions of normality. For this reason, non-parametric tests were used (Field, 2005; Howell, 2002).

The Mann-Whitney test was used to examine differences between completers and non-completers of AOD treatment on a number of variables that were measured on an interval or ratio scale. These included age, years of education, and ratings obtained on the treatment process factors (motivational scales, therapeutic alliance, treatment satisfaction and social support). Type of treatment was not included as a possible differentiating factor, with respondents having accessed inpatient, outpatient or detoxification services, or a combination of these. Categorical variables (e.g. gender, race) were compared using the Chi-square statistic. Spearman's Rho correlation procedures were also used to examine the association between the various treatment process factors, as well as their relationship to time in treatment. Logistic regression was performed to examine predictors of treatment completion, with treatment completion as the dependent, categorical variable. Multiple linear regression was used to explore the predictors of time in treatment (Field, 2005; Howell, 2002).

3.8 ETHICAL CONSIDERATIONS

The Ethics Review Board of the Faculty of Humanities at the University of Cape Town approved the original study, allowing for the collection of data, a subset of which was analysed in this study. The current study was also approved by the Research Ethics Committee (Faculty of Community and Health Sciences) at the University of the Western Cape.

Throughout the collection process, the ethical standards of informed consent and confidentiality were adhered to. Participants were required to provide written informed

consent for completion of both the screener and the full questionnaire. Furthermore, participants were required to summarise the content of the consent forms back to the field workers, in order to ensure an adequate understanding of the processes involved in the study. Participation in the study was voluntary. Respondents were free to withdraw from the study at any time or to refuse answering questions regarded as too intrusive by them.

All information collected about participants was kept confidential, with data being analysed in an aggregated manner. Interview forms did not contain identifying information, apart from locator forms which were kept locked away separately, with restricted access. No financial incentives were offered. However, participants were provided with refreshments, their transport costs were covered and they were provided with resource lists of organisations dealing with AOD abuse in Cape Town.

3.9 CONCLUSION

This chapter presented the methodology on which the study is based. The research aims were highlighted, and the validity and reliability of the measuring instruments confirmed. The research design, sampling procedure, data analysis and ethical considerations were also discussed. The following chapter presents the results of the statistical analyses.

CHAPTER 4
RESULTS

4.1 INTRODUCTION

This chapter contains the results of the statistical analyses conducted. It begins with comparisons of individuals who completed and did not complete treatment, on demographic, psychological and treatment process factors. For the purposes of bivariate comparisons, the Mann-Whitney and Chi-square tests were employed. Logistic regression was used in order to examine which treatment process factors significantly predict treatment completion, while the predictors of time in treatment were examined with multiple linear regression. The relationships between the various treatment process factors and time in treatment, as well as their associations among one another were examined using Spearman's Rho correlations. For the purposes of this study, a statistical significance level of $p < .05$ was used.

4.1.1 A note on bivariate and multivariate statistics

The treatment process factors, demographic and psychological variables were assessed for their impact on treatment retention using bivariate and multivariate statistics. As evident in the results, a variable may have been significantly associated with treatment completion or time in treatment, and yet not have been identified as a significant predictor in the multivariate regression analyses. This is possible, as bivariate analyses consider the relationship between two variables, ignoring the confounding influence a third variable may have on the relationship (Field, 2005). Therefore, although a number of variables were significantly associated with treatment retention, only those explaining the largest amount of variance were identified as predictors in the multiple regression analyses.

4.2. COMPARISONS OF COMPLETERS AND NON-COMPLETERS

The distribution of continuous data for individuals who completed treatment and those who prematurely discontinued treatment did not fit a normal distribution ($p < .001$ for all variables). The Mann-Whitney test was therefore utilised for the bivariate comparisons of

completers and non-completers for variables measured on an interval or ratio scale, while the Chi-square test was employed for bivariate comparisons of categorical variables (gender, race, family history of AOD abuse). The assumption of expected frequencies greater than five was met for all Chi-square analyses conducted (Field, 2005).

4.2.1 The relationship of demographic variables and treatment completion

As previous research has reported inconsistent results with regards to the association of demographic variables with treatment completion (see chapter 2), two-tailed tests were employed for these comparisons (Howell, 2002). The exception was age, for which a one-tailed test was used. As discussed in chapter 2, the majority of research suggests that older individuals are retained in treatment for longer than their younger counterparts.

With regards to age, older individuals (*Mdn* =25.0, *Mode* =25.0) were significantly more likely to complete treatment than younger patients (*Mdn* =24.0, *Mode* =20.0) were (*U* =17479.5, $p < .05$, r_s =.11). It is however important to note that age did not have much clinical significance, accounting for about 1% of the variance in treatment completion. Although the age at which an individual first started to use alcohol did not impact on treatment completion (*U* =6973.5, *ns*, r_s =.03), the age of first drug use did have an effect on the successful completion of treatment (*U* =17830.5, $p < .05$, r_s =.10). Non-completers in the sample began to use drugs at an earlier age (*Mdn* =17.0) than those individuals who successfully completed treatment (*Mdn* =18.0). However, the age at which an individual started to use drugs (a proxy for drug use severity) had a small effect on treatment completion, only explaining around 1% of the total variance.

Gender, race, a family history of AOD abuse, and years of education did not significantly differentiate completers from non-completers (see tables 5 and 6).

Table 5 Chi-square tests: Demographic comparisons of completers and non-completers

Variable	Completers % within completers (*n*)	Non-completers % within non-completers (*n*)	Chi-square χ^2	*p*[1] 2-sided	Overall % (*n*)
Gender					
Male	56.4% (168)	50.0% (68)	1.530	.253	54.4% (236)
Female	43.6% (130)	50.0% (68)			45.6% (198)
Race					
Black African	52.3% (156)	47.8% (65)	0.775	.408	50.9% (221)
Coloured	47.7% (142)	52.2% (71)			49.1% (213)
Family history of AOD abuse					
Yes	50.0% (149)	48.5% (66)	0.081	.836	49.5% (215)
No	50.0% (149)	51.5% (70)			50.5% (219)
Total (N)	**298**	**136**			**434**

[1] using the exact significance

Table 6 Mann-Whitney tests: Demographic comparisons of completers and non-completers

Variable	Completers		Non-completers		Mann-Whitney test	*p*	*z*	r_s
	Mdn (SD)	*Mean rank*	*Mdn (SD)*	*Mean rank*	*U*	2-sided		
Age in years	25.0 (4.69)	226.84	24.0 (5.00)	197.03	17479.5	.010*[1]	-2.303	.111
Age first started using drugs	18.0 (3.40)	225.67	17.0 (3.27)	199.61	17830.5	.040*	-2.022	.097
Age first started using alcohol	16.0 (2.60) [2]	130.42	16.0 (2.78)[3]	126.02	6973.5	.652	-0.449	.028
Years of education	11.0 (1.61)	215.65	11.0 (1.50)	221.55	19713.0	.635	-0.470	-.023
Total (N)	**298**		**136**					

*p <.05; [1]one-sided test used; [2]n =174; [3]n =83

4.2.2 Treatment process factors, psychological variables and treatment completion

Completers and non-completers were also compared in terms of treatment process factors. These factors were measured using numerous scales, which are detailed in chapter 3. The psychological variables, anxiety and depression, are also included in this section, as they were measured using a composite score. The composite scores obtained did not fit a normal distribution (p <.001 for all scales), therefore the Mann-Whitney test was utilised for bivariate comparisons between completers and non-completers. As the literature supports a positive association between treatment completion and the treatment process factors, one-sided tests of significance were employed. The exceptions are the psychological variables anxiety and depression, for which the literature presents a more ambiguous picture, and hence two-sided tests were used. The results are depicted in descending order of effect size in table 7.

Therapeutic alliance, as measured by the TCU Counselling Rapport scale, significantly differentiated between completers and non-completers (U =9001.5, p <.001, r_s =.45), with AOD users who evaluated the relationship with their counsellors more positively being more likely to complete treatment (*Mdn* =35.38) than those who perceived their relationship less positively (*Mdn* =24.62). Among the treatment process factors, therapeutic alliance explained the largest variation in treatment completion, accounting for approximately 20% of the variance. Treatment satisfaction was also significantly associated with treatment completion (U =9416.0, p <.001, r_s =.43), with treatment completers reporting significantly higher satisfaction with treatment (*Mdn* =21.0) than non-completers (*Mdn* =11.0).

Considering the impact of psychological variables on treatment completion, it is interesting to note that individuals who completed treatment tended to report both significantly higher levels of anxiety (*Mean rank* =233.14) and depression (*Mean rank* =228.46) than individuals who dropped out of treatment (*Mean rank* =183.22, 193.48; respectively). However, the effect that these psychological variables had on treatment completion was relatively small, with anxiety (U =15602.5, p <.001, r_s =.20) explaining around 4% and depression (U =16997.0, p <.01, r_s =.13) accounting for about 2% of the variance, respectively.

Table 7 Comparisons of completers and non-completers

Scale	Completers		Non-completers		Mann-Whitney	*p*	*z*	r_s
	Mdn (SD)	*Mean rank*	*Mdn (SD)*	*Mean rank*	*U*	*1-sided*		
TCU Counselling Rapport	35.38 (8.16)	255.29	24.62 (6.10)	134.69	9001.5	.000**	-9.30	0.447
TPQ Treatment Satisfaction	21.00 (8.48)	253.90	11.00 (5.35)	137.74	9416.0	.000**	-8.98	0.431
TCU Anxiety	40.00 (6.86)	233.14	40.00 (9.28)	183.22	15602.5	.000**[1]	-4.07	0.196
TCU Treatment Readiness	32.50 (6.00)	231.72	30.00 (5.43)	186.34	16026.0	.000**	-3.54	0.170
TCU Social Support	37.78 (4.32)	231.65	37.78 (5.05)	186.50	16047.5	.000**	-3.54	0.170
TCU Problem Recognition	37.78 (5.92)	230.18	37.78 (6.61)	189.72	16486.0	.001*	-3.18	0.153
TCU Desire for Help	40.00 (7.15)	229.61	38.57 (8.45)	190.97	16656.0	.001*	-3.01	0.145
TCU Depression	40.00 (6.83)	228.46	40.00 (9.32)	193.48	16997.0	.006*[1]	-2.80	0.134
Total N	**298**		**136**					

[1]2-sided test used; *p <.01; **p <.001

The three components of motivation were measured by the TCU Treatment Readiness (U =16026.0, p <.001, r_s =.17), TCU Desire for Help (U =16656.0, p <.01, r_s =.15) and TCU Problem Recognition (U =16486.0, p <.01, r_s =.15) scales. Completers scored higher on all aspects of motivation than non-completers did (see table 7). Treatment readiness was the aspect of motivation with the largest effect size, explaining around 3% of the variation in treatment completion, with desire for help and problem recognition accounting for around 2%.

Social support focusing on abstinence from AOD use impacted positively on treatment completion, as measured by the TCU Social Support Scale (U =16047.5, p <.001, r_s =.17). Individuals receiving social support that encourages abstinence from AOD use and involvement in treatment were more likely to complete treatment (*Mean rank* =231.65) than those not receiving the same degree of social support (*Mean rank* =186.50).

4.3 TIME SPENT IN AOD TREATMENT AND ITS ASSOCIATION WITH TREATMENT VARIABLES

This section provides a brief overview of the length of time spent in treatment by participants in the study. The relationship between length of time spent in treatment and variables thought to impact on the treatment process is then examined. Spearman's Rho correlation coefficient was employed, as the data did not meet assumptions of normality (p <.001 for all variables). The treatment process factors, as well as psychological and demographic variables, were examined for their relationship with length of time in AOD treatment. One-sided tests of significance were employed for the treatment process factors and the variable "age", as guided by the literature, which suggests a positive relationship between these variables and time spent in AOD treatment. Those factors for which past research suggest a more ambiguous relationship with time in treatment were analysed using two-sided tests of significance. Time in treatment was measured by the number of days spent in AOD treatment during the 12 months prior to the interview.

4.3.1 Time spent in treatment

The average amount of days spent in treatment during the 12 months prior to assessment was 50.52. However, the distribution was skewed to the right, making the median of 31.00 days (*SD* =43.41) a more accurate estimate.

Table 8 Days spent in AOD treatment

N = 344	*Mean (SD)*	*Mdn*	Minimum	Maximum
Days in treatment	50.52 (43.41)	31.00	2.00	300.00

4.3.2 Time spent in treatment and its association with treatment variables

The correlation coefficients are depicted in table 9 below. It should be noted that a number of respondents (90) did not provide the number of days they spent in treatment. This may have biased the results, and should therefore be kept in mind when interpreting them.

As expected from the literature reviewed in chapter 2, all the treatment process factors were positively and significantly related to length of time spent in treatment. Among the treatment process factors, therapeutic alliance (as measured by the TCU Counselling Rapport scale) had the largest correlation (r_s =.29) with days spent in treatment. An increase in the therapeutic alliance was therefore associated with an increase in the number of days spent in treatment, although the directionality is unknown. Similarly, an increase in the various motivational components (desire for help, problem recognition and treatment readiness), levels of abstinence-specific social support and treatment satisfaction also related positively to treatment retention (see table 9).

Among the psychological variables, anxiety and depression were both significantly related to treatment retention (p <.001 for both). Both anxiety and depression had a moderate effect size (r_s = .27, .23; respectively), with an increase in either variable associated with more days in treatment.

Regarding the demographic variables, race was significantly correlated with time in treatment (p <.001). Furthermore, it had the highest correlation with time in treatment

amongst all variables (r_s = .32). On average, Coloured individuals appeared to spend more days in treatment (*Mdn* = 60.00; *SD* = 50.06) than Black African individuals did (*Mdn* = 29.00, *SD* = 28.67). However, race was not a factor when considering completion of treatment, as reported in section 4.2.1. This apparent contradiction will be discussed in chapter 5. Gender, age, age at which an individual first started to use alcohol or drugs, years of education and a family history of AOD abuse were not significantly associated with treatment retention (see table 9). It is important to note that for those variables significantly correlated with time in treatment, the strength of the relationships was weak to moderate at best.

Table 9 Spearman's Rho correlations between days in treatment and treatment variables

	Days spent in treatment in past 12 months		
	r_s	*p*	*N*
Treatment factors		*(1-sided)*	
TCU Counselling Rapport	.288	.000***	344
TCU Problem Recognition	.230	.000***	344
TPQ Treatment Satisfaction	.211	.000***	344
TCU Desire for Help	.208	.000***	344
TCU Social Support	.143	.004**	344
TCU Treatment Readiness	.103	.029*	344
Psychological factors		*(2-sided)*	
TCU Anxiety	.269	.000***	344
TCU Depression	.229	.000***	344
Demographics		*(2-sided)*	
Race	.322	.000***	344
Gender	.034	.528	344
Age	.064	.119[1]	344
Age first started using alcohol	.086	.210	212
Age first started using drugs	.030	.582	344
Years of education	-.068	.208	344
Family history of AOD abuse	.042	.442	344

*p <.05; **p <.01; ***p <.001; [1]one-sided test used

4.4 PREDICTORS OF TREATMENT COMPLETION AND TIME IN TREATMENT

This section presents the results of multiple regression analyses to highlight the significant predictors of treatment completion and retention. Logistic regression is used to examine the variables predicting treatment completion, while multiple linear regression is used to detect those predictors of time in treatment.

The forward stepwise method of regression was used for both analyses. This ensured that only those variables exceeding a specific probability of significance were entered (p <.05), while those variables failing to reach a specified level (p <.10) were removed from the model, thereby ensuring that only the most robust predictors were included in the model. Stepwise regression is also useful as it reduces collinearity. The variable that best predicts the model enters first, with subsequent variables explaining the remaining variance at every step (Field, 2005; Tabachnik & Fidell, 2006).

The factors included in the analyses were originally selected based on the literature reviewed. The bivariate comparisons discussed earlier assisted in narrowing down the number of factors included in the models. Only those variables in the bivariate analyses that were significant at the 95% level (p <.05) were included in the regression analyses.

4.4.1 Predictors of treatment completion

Logistic regression was used to evaluate which variables had the greatest predictive power in determining treatment completion. A test of the full model versus the model with intercept only was significant ($\chi^2(4) = 140.83$; p <.001), indicating that the predictive value of the model increased when the various variables were entered. The model predicted 39% of the estimated variance in treatment completion (Nagelkerke R^2 =.39). According to the Hosmer and Lemeshow test, the model adequately fitted the data ($\chi^2(8) = 11.32$; p =.184). The model was able to correctly classify 55.1% of those who did not complete treatment and 88.3% of those who completed treatment, accounting for an overall rate of 77.9%.

The significant predictors and the constant are depicted in table 10 below. The final model included treatment satisfaction, therapeutic alliance, abstinence-specific social support and depression as predictive factors of treatment completion. However, the effect sizes were relatively weak with treatment satisfaction accounting for the greatest multiplicative factor of 1.12. This indicates that a one unit increase in treatment satisfaction increases treatment completion by a multiplicative factor of 1.12. Variables that were not found to be significant predictors of treatment completion included age, age of first drug use, anxiety and the three motivational components (problem recognition, desire for help and readiness for treatment).

Assessing the model for multicollinearity did not indicate any serious concerns. All tolerance values were above the cut-off value of 0.1 (Menard, 1995 in Field, 2005) and all VIF values were below 10, as suggested by Myers (1990 in Field, 2005).

Table 10 Logistic regression: Significant predictors of treatment completion

Predictor variables	**B *(SE)***	**Wald (df)**	**Odds Ratio (95% CI)**
Constant	-8.86 (1.30)	46.56 (1)***	0.00 (0.00 – 0.00)
Depression	0.07 (0.02)	20.45 (1)***	1.08 (1.04 – 1.11)
Treatment satisfaction	0.11 (0.03)	18.45 (1)***	1.12 (1.06 – 1.18)
Therapeutic alliance	0.08 (0.02)	9.54 (1)**	1.08 (1.03 – 1.13)
Social support	0.08 (0.03)	7.09(1)**	1.08 (1.02 – 1.14)

*p <.05; **p <.01; *** p<.001; Nagelkerke R^2 = .39

4.4.2 Predictors of time spent in treatment

Multiple regression was used to examine which variables had the greatest predictive power in determining the time spent in AOD treatment, measured in days. The assumption of independent errors was met, with the Durbin-Watson statistic close to the value of 2, as recommended by Field (2005). Similarly, no collinearity was detected with all tolerance values above 0.1 (Menard, 1995 in Field, 2005) and all VIF values below 10 (Myers, 1990 in Field, 2005). The overall model was significant (F (5,338) =23.81, p <.001), explaining around 26% of the overall variance of time spent in treatment (R^2 =.26).

Race was the most significant predictor of days spent in treatment ($t(338) = -8.08$; $p < .001$) (see table 11). As mentioned in section 4.3.2, Coloured individuals spent a significantly longer time in treatment than Black African individuals did. Yet, race was not a predictive factor in completion of treatment. This apparent anomaly will be discussed in chapter 5.

Social support ($t(338) = 3.03$, $p < .01$), anxiety ($t(338) = 3.16$, $p < .01$) and therapeutic alliance ($t(338) = 2.85$, $p < .01$) were also all significant predictors of the model. They were all positively associated with time in treatment. An increase in one unit of abstinence-specific social support would extend the days in treatment by 1.41 days, as long as all other variables are held constant. Similarly, an increase in one unit of anxiety or therapeutic alliance would increase retention by 0.92 days and 0.72 days, respectively.

Table 11 Multiple regression: Significant predictors of days in AOD treatment

Predictor variables	**B *(SE)***	***t***	**β**
Constant	-70.15 (18.67)	-3.76**	
Race	-33.91 (4.20)	-8.08**	-.39
Social support	1.41 (0.46)	3.03*	.15
Anxiety	0.92 (0.29)	3.16*	.17
Therapeutic Alliance	0.72 (0.25)	2.85*	.14

*$p < .01$; **$p < .001$; $R^2 = .26$

4.5 ASSOCIATIONS AMONG TREATMENT VARIABLES

In order to assess the interactions of the various treatment process factors, Spearman's Rho correlation coefficients were calculated. The two psychological variables, anxiety and depression, were also included. As discussed in chapter 2, the various variables interact in a complex and often reciprocal manner. It is therefore of interest to begin to highlight some of these complexities.

The three motivational components were all significantly correlated with each other ($p < .001$). "Problem recognition" and "desire for help", in particular, were highly correlated ($r_s = .74$) with one another. The positive correlation between these three

components is expected, based on the sequential relationship promulgated by Simpson and Joe (1993) (see section 2.4.3). Another highly significant relationship was that between treatment satisfaction and therapeutic alliance (measured by TCU Counselling Rapport) (r_s = .73, p<.001), with an increase in one leading to an increase in the other.

Therapeutic alliance was also positively associated with treatment readiness (r_s =.36, p <.001) and social support (r_s =.10, p <.05). There was also a significant positive relationship between social support and the motivational components "problem recognition" (r_s =.31, p <.001) and "desire for help" (r_s =.37, p <.001), but social support was not associated with treatment readiness (p =.70).

The psychological variables, anxiety and depression, apart from being highly correlated with one another (r_s =.83, p <.001), were also significantly associated with the motivational components and social support (see table 12). An increase in symptoms of depression or anxiety was associated with increased motivation to enter and engage in treatment. Anxiety was associated with increased motivation to enter and engage in treatment. Problem recognition and desire for help, in particular, demonstrated a strong degree of association with these psychological symptoms, ranging from r_s =.43 to r_s =.52. The strength of the relationship between social support and these symptoms, although significant (p <.001), was much weaker (see table 12).

Table 12 Spearman's Rho correlations among treatment variables

Correlation Coefficient (*p*) Two-sided tests used *N* = 434	**TPQ Treatment Satisfaction**	**TCU Counselling Rapport**	**TCU Problem Recognition**	**TCU Desire for Help**	**TCU Treatment Readiness**	**TCU Social Support**	**TCU Anxiety**	**TCU Depression**
TPQ Treatment Satisfaction	1.00	.731 (.000)***	-.004 (.939)	-0.12 (.797)	.313 (.000)***	-.007 (.887)	.052 (.284)	-.087 (.071)
TCU Counselling Rapport		1.00	.079 (.099)	.087 (.070)	.355 (.000)***	.101 (.035)*	.028 (.555)	-.070 (.146)
TCU Problem Recognition			1.00	.741 (.000)***	.223 (.000)***	.309 (.000)***	.432 (.000)***	.515 (.000)***
TCU Desire for Help				1.00	.282 (.000)***	.374 (.000)***	.481 (.000)***	.506 (.000)***
TCU Treatment Readiness					1.00	-.019 (.697)	.249 (.000)***	.128 (.007)**
TCU Social Support						1.00	.178 (.000)***	.232 (.000)***
TCU Anxiety							1.00	.833 (.000)***
TCU Depression								1.00

*p <.05; **p <.01; ***p <.001

4.6 SUMMARY OF RESULTS

The results are summarised below according to findings regarding treatment completion, time in treatment and associations among treatment variables.

4.6.1 Predictors of and variables associated with treatment completion

As hypothesized, all the treatment process factors (therapeutic alliance, treatment satisfaction, abstinence-specific social support, treatment readiness, desire for help and problem recognition) were significantly and positively associated with treatment completion, as determined by bivariate analyses. Therapeutic alliance and treatment satisfaction were the treatment process factors most strongly associated with treatment completion (r_s = .45, .43; respectively), with a stronger therapeutic alliance and greater satisfaction with treatment associated with a higher probability of treatment completion. Of the three motivational components, treatment readiness accounted for the greatest variance in treatment completion (3%), with desire for help and problem recognition accounting for around 2%.

Bivariate analyses determined that age (r_s =.11, p <.05) and age of first drug use (r_s =.10, p <.05), a proxy indicator for drug use severity, had significant but weak associations with treatment completion. Older individuals and those starting to use drugs at a later age were more likely to complete treatment. Race, gender, years of education, a family history of AOD abuse and age of first alcohol use did not differentiate completers from non-completers. With regards to psychological variables, completers of AOD treatment scored more highly on symptoms of anxiety and depression than those individuals who did not complete treatment. Anxiety accounted for around 4% of the variance in treatment completion, while depressive symptoms accounted for around 2%.

Logistic regression was used to determine the predictors of treatment completion. The overall model was significant, predicting 39% of the estimated variance in treatment completion, and correctly classifying 77.9% of the sample. Therapeutic alliance, treatment satisfaction, abstinence-specific social support and depression were all determined to be significant predictors of treatment completion. An increase in any of these factors raises the probability of successfully completing AOD treatment. The motivational components were the only treatment process factors not identified as predictors of treatment completion in the regression model. They were, however, found to be statistically significant and positively

associated with treatment completion in the bivariate analyses, indicating that other factors take on a more important role in predicting treatment completion when a multitude of factors is considered. No demographic variables were significant predictors of treatment completion.

4.6.2 Predictors of and variables associated with time in treatment

As hypothesised, all treatment process factors (therapeutic alliance, treatment satisfaction, abstinence-specific social support, treatment readiness, desire for help and problem recognition) were significantly and positively associated with the number of days spent in treatment, as determined by bivariate analyses. Nevertheless, the correlations were relatively weak. Race had the strongest association with time in treatment (r_s =.33, p <.001). Coloured individuals were likely to have spent more days in treatment than Black African individuals. However, race was not found to impact on treatment completion. This apparent contradiction will be examined in chapter 5. Of all the treatment process factors, therapeutic alliance had the highest correlation (r_s =.29) with days spent in treatment. The psychological variables, depression and anxiety, were also significantly related to time in treatment, with an increase in either variable related to more days in treatment. Gender, age, age of first alcohol or drug use, years of education and a family history of AOD abuse were not significantly associated with days in treatment.

Multiple linear regression was used to determine predictors of time in treatment. The overall model was significant, explaining about 26% of the variance of time in treatment. Race was the most significant predictor of time in treatment, with Coloured patients spending a longer time in treatment than Black African patients did. Abstinence-specific social support, anxiety and therapeutic alliance were also significant predictors of the number of days spent in AOD treatment.

4.6.3 Associations among treatment variables

A number of treatment variables were associated with each other, highlighting the complex interactions between treatment process factors, and their resultant impact on treatment retention and completion. As hypothesised, therapeutic alliance and treatment satisfaction were variables strongly and significantly associated with each other (r_s =.731, p <.001). A stronger therapeutic alliance was associated with increased treatment satisfaction, and vice versa. The three motivational components (problem recognition, desire for help and treatment

readiness) were all positively and significantly related to each other. The psychological variables, depression and anxiety, were both significantly associated with all three motivational components. An increase in either depression or anxiety was related to greater motivation for treatment. Treatment readiness was also positively associated with treatment satisfaction and therapeutic alliance, while abstinence specific social support was positively associated with problem recognition, desire for help, therapeutic alliance, anxiety and depression.

4.7 CONCLUSION

This chapter presented the results of statistical analyses used to differentiate between completers and non-completers of AOD treatment, to determine variables associated with time in treatment, to highlight predictors of treatment completion and time in treatment, and to explore the associations between treatment variables. These results will be discussed in the following chapter in the context of the relevant literature and past research.

CHAPTER 5
DISCUSSION

5.1 INTRODUCTION

This chapter discusses the results of the statistical analyses in light of the relevant literature. Each treatment process factor, demographic and psychological variable is examined in relation to its impact on treatment retention, followed by an explanation of the interaction among variables. Implications of the findings are then highlighted, and limitations of the research discussed. Finally, recommendations for future research are made.

5.2 TREATMENT PROCESS FACTORS

Findings regarding the associations of the treatment process factors (therapeutic alliance, treatment satisfaction, motivation and social support) with treatment completion and time in treatment are discussed in this section. These findings address aim 1, and hypotheses 1 and 2, as outlined in section 3.2. Aim 4 and hypothesis 9, which relate to the inter-relationship between the treatment process factors, are also addressed in this section.

5.2.1 Therapeutic alliance

Therapeutic alliance had a consistent and significant effect on treatment retention in the present study. It was included as a significant predictor for both treatment completion and time in treatment, being significantly positively associated with both these measures of retention. Among the treatment process factors, therapeutic alliance had the strongest correlation with treatment completion (r_s =.45) and time in treatment (r_s =.29). These results are consistent with a number of studies (e.g. Barber et al., 2001; Simpson, Joe, Rowan-Szal,& Greener, 1997), including an extensive review of peer-reviewed studies (Meier, Barrowclough, et al., 2005), which demonstrated that a strong therapeutic alliance early in treatment was predictive of treatment retention for substance abuse. A strong therapeutic relationship is thought to enhance engagement and participation in treatment, as well as leading to a reduction in AOD use during treatment (Connors et al., 1997; Joe, Simpson, Greener, et al., 1999; Meier, Barrowclough, et al., 2005; Simpson, Joe, Rowan-Szal, & Greener, 1997). These results therefore support the assertion that the establishment and

maintenance of a strong therapeutic alliance aids retention in and completion of AOD treatment.

Therapeutic alliance and treatment satisfaction had a high and significant correlation with each other (p <.001; r_s =.73). This supports Dearing et al.'s (2005) research which established that a strong therapeutic alliance and higher session attendance was related to treatment satisfaction, and ultimately a more positive outcome. Tetzlaff et al. (2005) also found a moderate correlation between working alliance and treatment satisfaction, although they reflect that there are important differences between the two constructs, with the therapeutic alliance solely reflecting the relationship with the therapist, while treatment satisfaction would also include factors such as location, cost and convenience.

The psychological variables, depression and anxiety, were not significantly related to the therapeutic alliance. This is consistent with previous research that found that psychological symptoms do not impact on the formation of a good therapeutic alliance (Meier, Barrowclough, et al., 2005).

5.2.2 Treatment satisfaction

Treatment satisfaction was a significant predictor of treatment completion in the study. It significantly differentiated between completers and non-completers, having the second strongest correlation (r_s =.43) with treatment completion, after therapeutic alliance. Although it was moderately associated with time in treatment (r_s =.21), it was excluded as a significant predictor of time in treatment in the regression analysis. These results are consistent with previous research which has demonstrated positive relationships with treatment completion and retention (Hser et al., 2004; Simpson, Joe, & Brown, 1997) and time in treatment (Chan et al., 1997).

Possible reasons for treatment satisfaction's predictive ability of treatment completion but not time in treatment is that the latter is primarily determined by organisational factors such as the length of the available treatment programme. This would apply to short, targeted interventions which do not allow the patient the luxury of choosing to remain in treatment for longer, if desired. This may be particularly relevant in some of the Black African townships, which primarily provide access to brief outpatient services (Myers & Parry, 2005), and may

also explain the strong predictive power of race for time in treatment (see section 5.3.2). The strong correlation between treatment satisfaction and therapeutic alliance (r_s =.73) also suggests that the therapeutic alliance accounts more strongly for a large proportion of the shared variance, thereby excluding satisfaction as a predictor of time in treatment.

5.2.3 Treatment motivation

The three sequential components of treatment motivation, namely problem recognition, desire for help and treatment readiness, were significantly and positively associated with treatment completion and time in treatment, although the correlations were weak to moderate in strength. This finding supports research demonstrating that motivation indirectly affects retention by positively influencing engagement with treatment (Broome et al., 1997; Simpson et al., 1995). Of the three motivational components, treatment readiness accounted for the largest proportion of variance in treatment completion (about 3%). This is consistent with Simpson and Joe's (1993) conception of progressive levels of motivation, with problem recognition and desire for help primarily accounting for entering AOD treatment. Treatment readiness is a latter form of motivation, and may therefore have more direct impact on treatment completion.

Although positively associated with treatment retention, none of the motivational components were identified as significant predictors of treatment completion or time in treatment in the multiple regression analyses. It may be that motivation has an indirect, rather than direct effect, on treatment retention via the therapeutic alliance. This is supported by the moderate correlation (p <.01; r_s =.36) between treatment readiness and therapeutic alliance found in the present study, and is consistent with previous research that has demonstrated a positive association between motivation and the therapist-patient alliance (Broome et al., 1997; Joe, Simpson, Greener, et al., 1999; Meier, Donmall, et al., 2005). These observations provide support for the TCU treatment model, which demonstrates that pretreatment motivation is a significant predictor of session attendance during early treatment (Simpson et al., 1995). Session attendance in turn interacts positively with the therapeutic relationship, with both variables being positively associated with treatment retention (Simpson, Joe, Rowan-Szal, & Greener, 1997).

5.2.4 Abstinence-specific social support

Abstinence-specific social support was a significant predictor of both treatment completion and time in treatment, being positively associated with both variables. Individuals receiving social support that encouraged involvement in treatment and abstinence from AOD use, and who had some good friends who did not use substances, were more likely to complete treatment and remain in treatment for a longer period of time. This is consistent with Dobkin et al.'s (2002) findings that patients with lower levels of perceived functional social support at intake were more likely to drop out of treatment. It also partly supports research demonstrating that substance use amongst peers was positively associated with greater relapse rates and poorer outcomes (Broome et al., 2002; Goehl et al., 1993).

The results suggest that social support is an important factor in retaining patients in AOD treatment. It has therefore been suggested that the establishment and modification of social support networks should be addressed during treatment (Dobkin et al., 2002), with family involved in the treatment process where possible (Broome et al., 2002). However, Goehl et al. (1993) caution against simply involving significant others in a patient's treatment, without considering whether these individuals are AOD users themselves.

The correlation between the therapeutic alliance and social support was significant but weak (p <05; r_s =.10). However, it does provide some support for Meier, Donmall, et al.'s (2005) assertion that available social support is linked with the ability to establish good therapeutic alliances within treatment. Social support also had moderate, significantly positive correlations with problem recognition (r_s =.31) and desire for help (r_s =.37), possibly reflecting the importance of significant others in motivating individuals to seek treatment for substance abuse (NIDA, 1999).

5.3 DEMOGRAPHIC AND PSYCHOLOGICAL VARIABLES

Findings regarding the associations of demographic and psychological variables with treatment completion and time in treatment are discussed in this section. These findings address aims 2 and 3, and hypotheses 3 to 8, as outlined in section 3.2.

5.3.1 Gender

As hypothesised, gender did not significantly differentiate between completers and non-completers, and was not associated with time in treatment. This is consistent with Agosti et al. (1996) and Matthews and Lorah's (2005) findings that gender had no impact on treatment completion. However, a number of studies differed in their results, with some suggesting that women were more likely to prematurely discontinue treatment (Boylin et al. 1997; Hser et al., 2004; McCaul et al., 2001), and others finding that men were less likely to be retained (Latimer et al., 2000; Maglione et al., 2000). These conflicting findings may be attributed to the lower proportion of women in most studies, and the greater percentage of men coerced into AOD treatment (Wickizer et al., 1994).

Despite the results suggesting no association between gender and treatment retention, factors enhancing retention for both genders should be considered in planning treatment interventions. For example, competing financial demands have been found to be a salient barrier for retaining poor women in treatment (Gelberg, Andersen, & Leake, 2000; Schober & Annis, 1996). This is particularly relevant in a South African context, with Myers (2007) finding that a greater proportion of females reported competing financial priorities in accessing AOD treatment than their male counterparts. This suggests that AOD treatment targeted at women needs to go beyond single-gender treatment, instead providing services specific to women's needs (Bride, 2001), such as childcare services, prenatal care and parenting skills (Ashley et al., 2003).

5.3.2 Race

As hypothesised, race had no association with treatment completion in the present study. However, it was the most significant predictor of days spent in treatment, with Coloured patients spending a significant longer time in treatment than Black African patients. Black Africans had a median stay of 29 days in AOD treatment, while the median time in treatment for Coloured individuals was 60 days. This difference in length of stay may be attributed to barriers hindering access to more intensive forms of AOD treatment amongst those individuals from Black African townships. This observation is supported by the sample in the present study, in which 58.7% (n =125) of Coloured patients, but only 12.7% (n =28) of Black African individuals accessed inpatient AOD treatment in the year preceding the study. Myers and Parry (2005) found that compared to inpatient facilities, a significantly higher

proportion of outpatient facilities in Cape Town employed African-language speaking therapists, and offered reduced fees. This may partly account for the differing patterns of AOD treatment use between Coloured and Black African individuals, and the subsequent variation in treatment length. Other barriers include long waiting lists (Myers et al., 2008), and stigma towards the use of AOD treatment facilities situated within local communities in the Western Cape (Myers, Fakier, & Louw, in press).

Therefore, although both race groups are equally likely to complete treatment, Black Africans may access shorter and less intensive AOD treatment programmes, thereby spending less days in treatment. This is an important observation, as length of time in treatment has been found to be a critical predictor of treatment outcomes (Hubbard et al., 1997; Simpson, Joe, & Rowan-Szal, 1997), with research suggesting a minimum treatment duration of three months for significant improvement (NIDA, 1999; Simpson, Joe, & Brown, 1997; Simpson, Joe, & Rowan-Szal, 1997). Overall access to affordable AOD treatment for HDCs in Cape Town is limited, with only 2 out of 14 inpatient facilities providing free services (Myers, 2007). The lack of access to AOD treatment of an adequate duration is therefore likely to hinder the effectiveness of treatment, and suggests that intervention is required in this regard.

5.3.3 Age

Age significantly differentiated between completers and non-completers of AOD treatment, although the effect was weak. The results provide some support for previous studies that found that older individuals were more likely to complete treatment than younger individuals (Agosti et al., 1996; Maglione et al., 2000; Ravndal et al., 2005; Wickizer et al., 1994). However, age was not associated with time in treatment, and was excluded as a predictor of treatment completion and time in treatment. This may partly be attributed to the relatively narrow age range of the overall sample, with 89% of the sample 30 years or younger.

5.3.4 AOD use severity

Although the current study did not include any specific measure of AOD use severity, the age of first drug and/ or alcohol use may act as an indicator, with earlier use equated to greater problem severity. In the present study, age of first drug use, but not age of first alcohol use, was positively associated with treatment completion. However, the effect size was weak (r_s =.10). This provides some support for Agosti et al.'s (1996) finding that individuals who

began using substances at an earlier age were more likely to drop out of treatment, but conflicts with those of Wickizer et al. (1994) who reported the opposite. However, age of first drug and alcohol use were not associated with time in treatment and were excluded as predictors of treatment retention. Measurement of AOD use severity in the present study was impeded, and would have been enhanced by the inclusion of more comprehensive measurement tools.

5.3.5 Psychological functioning: depression and anxiety

In contrast to the hypotheses, depression and anxiety were both significantly and positively associated with treatment completion and time in treatment. However, depression was the sole psychological predictor of treatment completion, while anxiety, but not depression, predicted time in treatment. This may be accounted for by the high correlation (r_s =.83) between depression and anxiety, indicating that the two scales measured similar, overlapping constructs. These findings conflict with past research that found no association between a history of depression and treatment completion or retention (Agosti et al., 1996; Miller et al., 1999). The positive link between depression, anxiety and treatment retention may however be explained by the assertion that individuals with these symptoms frequently are more motivated to access treatment (Nwakeze et al., 2002), and become more involved in treatment (Joe et al., 1995). This is supported by the positive and significant correlations between depression, anxiety and the three motivational components found in the present study. Problem recognition and desire for help, the two motivational components that account primarily for accessing treatment, were moderately correlated with depression (r_s =.52, 51; repectively) and anxiety (r_s =.43, 48; respectively). Treatment readiness, a latter form of motivation, had a weaker correlation with depression (r_s =.25) and anxiety (r_s =.13). These results support the view that symptoms of depression and anxiety motivate individuals with AOD problems to access treatment.

5.4 IMPLICATIONS FOR TREATMENT

The results suggest that dynamic variables such as the treatment process factors play an important role in treatment retention, and ultimately treatment success. As treatment process factors, such as the therapeutic alliance, motivation, satisfaction and social support, are dynamic and not fixed, it should be possible to alter services in such a manner that retention in treatment is increased, ultimately resulting in greater treatment effectiveness.

Training is one manner in which treatment retention can be improved. For example, therapist style has been found to have an impact on the therapeutic alliance. Therapist empathy, as opposed to aggressive confrontation with substance users, has a positive impact on rapport and retention (Fiorentine et al., 1999); and this knowledge should be communicated during the training of counsellors. Training therapists and counsellors in techniques such as motivational enhancement therapy and motivational interviewing would also aid treatment retention and completion. Motivational enhancement therapy and motivational interviewing address ambivalence about engaging in treatment, and both techniques have been shown to increase compliance and reduce dropout from substance abuse treatment (Harper & Hardy, 2000; Miller, Benefield, & Tonigan, 1993; NIDA, 1999; Sobell & Sobell, 2003).

The involvement of supportive family and friends in the treatment process, as well as the modification of social support networks, are other ways of aiding treatment completion and retention (Dobkin et al., 2002). Twelve-step programmes, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), often meet the need for fellowship with recovering others (Nealon-Woods, Ferrari, & Jason, 1995). AA meetings are regularly held at various locations around Cape Town, including the Cape Flats, and may provide a much-needed source of abstinence-specific social support (*A.A. Meetings*, 2009). Similar networks exist for family members (*NAR-ANON Western Cape Meetings*, n.d.). These provide support for family members who are struggling to cope with an addiction in the family; and teach members healthy ways of supporting people in treatment and recovery.

The impact of the treatment process factors on retention, and ultimately outcome, also suggests the importance of ongoing monitoring of these factors during treatment, rather than relying on an evaluation of treatment effectiveness post-discharge. This is in line with Simpson (2005), who suggests that the effectiveness of discrete interventions can be evaluated on the basis of their interim impact on patient performance, rather than judging them only by their long-term outcomes. Similarly, McLellan et al. (2005) argue for frequent evaluation during treatment, and continued care on an outpatient basis following discharge, that is similar to that offered in the treatment of chronic medical illnesses such as diabetes or hypertension.

The finding that race was a significant predictor of days in treatment, but not treatment completion, suggests that barriers hinder access to longer term AOD treatment among Black

Africans, with less than 13% of the sample having accessed inpatient AOD treatment in the preceding year (see section 5.3.2). Although all HDCs are affected by the lack of affordable, longer-term AOD treatment (Myers, 2007), barriers to treatment are particularly pronounced among Black African communities in Cape Town. This indicates a need for improved service delivery, so that Black Africans have greater access to longer-term treatment, if required. Considerations such as the provision of African-language speakers, financial and child-care arrangements, and the stigma associated with the use of AOD treatment facilities should be addressed, as these may hamper participation in longer-term, intensive treatment.

5.5 LIMITATIONS

One of the main limitations of the study was the use of a cross-sectional design. As the impact of variables on the treatment process varies across treatment stages, a longitudinal design would have provided a better idea of the importance of the various factors at different stages in treatment. Causality and direction could also not be inferred in the present study due to the concurrent measuring of variables. Although time-line follow back procedures were used to improve the accuracy of recall, there was still a risk that participants inaccurately remembered retrospective information.

The research study focused on a selection of patient-level variables influencing treatment retention. A large proportion of the variance in predicting treatment completion and time in treatment remains unaccounted for, suggesting that some important predictors were excluded from the analysis. Organisational variables and the impact of specific therapeutic interventions were not considered. In Cape Town, non-need factors such as affordability and geographic access play a primary role among disadvantaged communities in accessing AOD treatment (Myers, 2007), and these factors are also likely to impact on treatment retention. Therefore, a number of variables that may have had a significant impact on treatment retention were excluded.

The findings of the study may also not be generalisable to a broader population or other settings, due to the use of snowball sampling in the collection of the data.

It is also questionable whether the age of first alcohol or drug use was a sensitive enough measure of AOD use severity. In hindsight, a composite measure such as the Addiction

Severity Index (ASI) would have provided a more reliable and valid indication of AOD use severity (McLellan, Alterman, Cacciola, Metzger, & O'Brien, 1992).

For the variable "time in treatment", 90 respondents did not provide the number of days spent in treatment. This may have biased the results, as it is uncertain as to how non-respondents differed from respondents.

The scale measuring the third component of motivation, treatment readiness, obtained an alpha reliability co-efficient (α =.68) slightly below the recommended cut-off of .7 (Kline, 1993). Although it is unlikely that the reliability of the scale has been impeded, due to the small discrepancy, this should be noted.

Other limitations included the reliance on patient's self-report data, and the focus on a single treatment episode. Multiple measures, such as staff and patient perceptions, may provide a more accurate reflection. Patients with AOD problems also frequently move through a variety of treatment programmes, and the cumulative effect of a variety of treatments may play an important role in outcome (Wickizer et al., 1994).

5.6 RECOMMENDATIONS FOR FUTURE RESEARCH

A large proportion of variance remained unaccounted for in the study, and the effect sizes of the multiple regression analyses were also relatively weak. This suggests that there are a number of variables accounting for treatment completion and time in treatment that were not measured in the study. It is therefore recommended that a qualitative study be conducted in order to identify these variables. It may also be useful to separately analyse inpatients and outpatients, as different factors may account for treatment retention among these groups. Analysing retention and completion by the type of treatment model (e.g. cognitive-behavioural therapy versus supportive-expressive psychotherapy) may also provide useful insights.

A longitudinal study is recommended as it will provide a better overview than a cross-sectional study of the relationships between the various treatment factors and their impact on treatment retention. The use of path model analysis may also be useful in analysing the

complex relationships among multiple factors impacting on treatment completion and retention (Hser et al., 2004).

Future studies could employ multiple methods of assessment, such as staff and patient reports, in order to provide a more accurate reflection of variables. It may also be useful to focus on the cumulative effect of multiple treatment episodes on treatment retention, as this may play an important role in eventual treatment outcome (Wickizer et al., 1994). Finally, a South African study describing the link between treatment completion, retention and outcomes would be welcome.

5.7 CONCLUSION

The study aimed to examine patient-level factors associated with treatment retention for substance abuse among HDCs from Cape Town. The therapeutic alliance, treatment satisfaction, social support and depression predicted treatment completion, with all variables being positively associated with completion. The number of days in treatment was predicted by race, therapeutic alliance, social support and anxiety, with a stronger therapeutic alliance, improved social support and greater anxiety associated with more days spent in treatment. Black Africans spent a significant lower number of days in treatment when compared with Coloured individuals, although both groups were equally likely to complete treatment. Although motivation was positively and significantly associated with both treatment completion and time in treatment, it was not predictive of either outcome. The research also demonstrated the complex and reciprocal interactions of treatment process factors on each other. The results suggest that by strengthening the therapeutic alliance, social support and treatment satisfaction, treatment completion and retention can be improved. This can be achieved by training, ongoing monitoring of these factors during treatment, and greater involvement of supportive social networks in a patient's recovery. The findings also point towards the need for improved service delivery for Black Africans, who confront many barriers to accessing inpatient AOD treatment.

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APPENDIX 1: ACCESS TO TREATMENT QUESTIONNAIRE (ATQ)

ACCESS TO TREATMENT QUESTIONNAIRE
Treatment phase

IDENTIFYING INFORMATION
(To be completed by interviewer)

STAFF INITIALS: .....|__|__|

CLIENT ID: .....|__|__|__||__|

SUBURB....._____

DATE: .....|__|__| / |__|__| / |__|__|__|__|
DD MM YYYY

START TIME: .....|__|__| : |__|__|
(Use 24 hr clock)

Read the following aloud to the respondent:

In this interview I will be asking about your personal background, your alcohol and drug use, your health, your relationships and your use of treatment/rehab facilities. It is very important that you are as open and honest as possible.

Before we begin, I'd like to remind you that:

- All of your answers will be kept confidential,
- You have the right to refuse to answer any question without having to explain why you did so, and
- If you do not recall something exactly, we would still like your best guess.

Before we begin, do you have any questions?

SECTION A: DEMOGRAPHICS

READ: *First, I am going to ask you a few questions about yourself.*

A1. How old are you now?

NOTE: ENTER AGE IN THE BOXES PROVIDED BELOW.

AGE ..... |__|__|

A2. **[FROM OBSERVATION IF POSSIBLE]** (Are you male or female?)

FEMALE 1
MALE 2

A3. Do you consider yourself a Black, Coloured, or White South African, or from another race or ethnic group? **[FROM OBSERVATION IF POSSIBLE]**

BLACK 1
COLOURED 2
ASIAN/INDIAN 3
WHITE 4
OTHER **[SPECIFY]:** 5

A4. (HAND RESPONDENT SHOWCARD A-1) What languages are you most comfortable <u>speaking</u> in?

NOTE: READ CHOICES; CIRCLE ALL THAT APPLY	YES ▼	NO ▼	DK ▼	Ref ▼
a. SeSotho	1	2	-4	-7
b. English	1	2	-4	-7
c. IsiZulu	1	2	-4	-7
d. Afrikaans	1	2	-4	-7
e. isiXhosa	1	2	-4	-7
f. Other language	1	2	-4	-7

If other then specify: _____

A5. (HAND RESPONDENT SHOWCARD A-1) What is the **main language** you speak with friends and family?

NOTE: READ CHOICES; CIRCLE ONLY ONE

a. SeSotho 1
b. English 2
c. IsiZulu 3
d. Afrikaans 4
e. IsiXhosa 5
f. Other language 99

If other, then specify: _____

A6. (HAND RESPONDENT SHOWCARD A-2) What is the highest level of education (that you completed and passed)?

NOTE: UNLESS OTHERWISE SPECIFIED, CIRCLE ONLY ONE ANSWER PER QUESTION

Less than one year completed 1
Sub A/Class 1/Grade 1.....2
Sub B/Class 2/Grade 2.....3
Standard 1/Grade 3.....4
Standard 2/Grade 4.....5
Standard 3/Grade 5.....6
Standard 4/Grade 6.....7
Standard 5/Grade 7.....8
Standard 6/Grade 8.....9
Standard 7/Grade 9.....10
Standard 8/Grade 10.....11
Standard 9/Grade 11.....12
Standard 10/Grade 12.....13
Diploma/ trade or technical training—complete.....14
University degree – Complete…….15

A7. Where were you born?

_____town/village

_____province

_____country

A8. (HAND RESPONDENT SHOWCARD A-3) What is your current relationship or marital status?

NOTE: READ CHOICES, CIRCLE ONLY ONE RESPONSE

Single (never married and not currently involved)..... 1
Involved but not living with a boyfriend/girlfriend.....2
living with a boyfriend/girlfriend(not married).....3
Married 4
Separated.....5
Divorced 6
Widowed.....7

A9. (HAND RESPONDENT SHOWCARD A-4) Where are you living/staying now?

NOTE: READ CHOICES; CIRCLE ONLY ONE

Your own home that you personally own or rent 1
In a family member's home (e.g. parents).....2
In someone else's home (not a family member) 3
In a shack, outbuilding, Wendy house.....4
In a hotel.....5➊
In a hostel.....6➊
In an abandoned building, vacant plot.....7➊
On the streets/ in a park 8➊
In work barracks/dormitories/ work housing 9➊
OTHER.....99➊
If other, then specify: _____

LOGIC: ➊ SKIP TO A10 IF ANSWER 5-9, DK/UNSURE, OR REFUSED

A9b. How many rooms are there in the place that you stay in?
(exclude bathroom and kitchen, include detached rooms such as outbuildings/Wendy houses).....|__|__|

A10. (HAND RESPONDENT SHOWCARD A-5) Where you live now, what are the outside walls made of?

Plastic sheets/cardboard/branches/twigs 1
Iron/Metal sheets 2
Mud walls/ wattle and daub 3
Timber/wood 4
Cement blocks 5
Bricks 6
OTHER 99
If other then specify: _____

A11. (HAND RESPONDENT SHOWCARD A-6) Where you live now, what is the floor made of?

Mud, dung or soil 1
Rough cement 2
Cement with additional covering (tiles, wood, carpet, rug) 3
OTHER 99
If other, then specify: _____

A12. (HAND RESPONDENT SHOWCARD A-7) Where you live now, what is the roof made of?

Thatch/reeds/grass/palms 1
Plastic sheets/cardboard 2
Iron sheets/tin/metal sheet/asbestos 3
Wood 4
Roof tiles, bricks, cement, or slate 5
OTHER 99
If other, then specify: _____

A13. (HAND RESPONDENT SHOWCARD A-8) Where you live now, where do you get your drinking water from?

Collect water from rain/dam/pond/lake/river.....1
Buy water from neighbours 2
A well, hand pump, or borehole shared with the community.....3
A well, hand pump, or borehole for family use only.....4
An outside tap (in the yard) 5
Taps inside the house 6
OTHER.....99
If other, then specify: _____

A14. (HAND RESPONDENT SHOWCARD A-9) Where you live now, where do you get your electricity from?

Have no electricity.....1
Have a shared connection with others 2
A generator/solar panel.....3
Illegally tap electricity off municipality wires/cables.....4
Own paid for electricity connection.....5
OTHER.....99
If other, then specify: _____

A15. (HAND RESPONDENT SHOWCARD A-10) Where you live now, what kind of toilet do you use?

Bush, veld, no facility.....1
A bucket 2
Outside toilet (pit latrine)shared with the general public.....3
Outside toilet shared only with the people you live with 4
Flush toilet shared with the general public 5
Flush toilet inside your room/flat/house.....6
OTHER.....99
If other, then specify: _____

A16. (HAND RESPONDENT SHOWCARD A-11) Where you live now, what is the main type of fuel you use to cook with?

Dung.....1
Wood.....2
Paraffin.....3
Coal.....4
Gas.....5
Electricity.....6
OTHER.....99
If other, then specify: _____

A17. Do you **personally own** any of the following items?

PLEASE NOTE: Respondent must own these items personally, they should not just be household/family possessions

NOTE: READ CHOICES; CIRCLE ALL THAT APPLY	YES ▼	NO ▼	DK ▼	Ref ▼
a. Television	1	2	-4	-7
b. Radio	1	2	-4	-7
c. Refrigerator	1	2	-4	-7
d. Electric or gas cooking stove	1	2	-4	-7
e. Sewing machine	1	2	-4	-7
f. Land phone	1	2	-4	-7
g. Cell phone	1	2	-4	-7
h. Bed	1	2	-4	-7
i. Couch	1	2	-4	-7
j. Wardrobe	1	2	-4	-7
k. Bicycle	1	2	-4	-7
l. Car/bakkie/taxi/truck	1	2	-4	-7
m. Motorcycle	1	2	-4	-7
n. House/flat	1	2	-4	-7
o. Farm/small holding	1	2	-4	-7
p. Empty piece of land	1	2	-4	-7

q. Other (of value, e.g. livestock)..... 1 ....2 ....-4 .....-7

If other then specify: _____

A18. Who do you live with now? (HAND RESPONDENT SHOWCARD A-12)

NOTE: READ CHOICES; CIRCLE ALL THAT APPLY

a. No-one, I live by myself most of the time 1
b. My main sexual partner (boyfriend or girlfriend).....2
c. Friend/s.....3
d. Family/Relative/s (including children, wife, parents) 4
e. Pimp/big mama 5
f. Sugar Mama.....6
g. Sugar Daddy 7
h. OTHER.....99
If other, then specify: _____

A18a. Including yourself, how many people currently live with you *(include children)*.....|__|__|

A19. (HAND RESPONDENT SHOWCARD A-13) Who are you financially supporting right now?

NOTE: READ CHOICES; CIRCLE ALL THAT APPLY

No-one..... 1
Child/children..... 2
Spouse/sexual partner (boyfriend or girlfriend) 3
Parents..... 4
Siblings (brothers and sisters) 5
Extended family (nephews, nieces, grandparents etc)..... 6
Friends 7
OTHER..... 99
If other, then specify: _____

A20. (HAND RESPONDENT SHOWCARD A-14) Right now, are you legally employed?

NOTE: READ CHOICES; CIRCLE ONLY ONE RESPONSE

Employed full-time by someone else.....1
Employed part-time by someone else.....2
Self-employed full-time 3
Self-employed part-time 4
Unemployed, looking for work.....5
Unemployed, not looking for work.....6
Student/learner/scholar 7
Retired/disabled/pensioner.....8
Housewife.....9
OTHER.....99
If other then specify _____

A21. (HAND RESPONDENT SHOW CARD A-15). Thinking about the last month, how much money did YOU personally earn from all LEGAL sources?

Between R0 and R500 per month 1
Between R501 and R1000 per month 2
Between R1001 and R2500 per month 3
Between R2501 and R5000 per month 4
More than R5000 per month 5
OTHER..... 99
If other, then specify: _____

A22. Do you have a medical aid?

YES 1
NO.....2 ➊

LOGIC: IF NO ➊ GO TO A23

A22a. Does your medical aid cover the costs of alcohol and drug rehab/treatment?

YES 1
NO 2
DK/UNSURE ..... -4

A23. Do you have a family member who has or has had problems with alcohol and/or drugs?

YES 1
NO 2
DK/UNSURE ..... -4

SECTION B: RISK ENVIRONMENT, SOCIAL CAPITAL AND AVAILABILITY OF SERVICES

READ: *Now I am going to ask about some questions about what it is like to live in your neighbourhood.*

B1. What area are you staying in now (main area of residence)_____

B2. (HAND RESPONDENT SHOWCARD B-1) How long have you lived in this area?

Less than 12 months 1
12 months but less than 2 years 2
2 years but less than 3 years 3
3 years but less than 5 years 4
5 years but less than 10 years 5
10 years but less than 20 years 6
20 years or longer 7

B3. (HAND RESPONDENT SHOWCARD B-2) Overall, how would you rate your community as a place to live?

Poor 1
Only fair 2
Neither good nor bad 3
Good 4
Excellent 5

B4. (HAND RESPONDENT SHOWCARD B-3) Which of the following statements best describes your situation?

I know most of the people in my neighbourhood 1
I know many of the people living in my neighbourhood 2
I only know a few of the people in my neighbourhood 3
I do not know people in my neighbourhood 4

B5. (HAND RESPONDENT SHOWCARD B-4) How safe do you feel living in your neighbourhood? **(Probe: would you feel safe going out alone at night?)**

Very unsafe 1
Rather unsafe 2
Neither safe nor unsafe 3
Rather safe 4
Very safe 5

.

B6. (HAND RESPONDENT SHOWCARD B-5) How high is crime in your neighbourhood? **(Probe: how often do people get robbed, mugged, attacked?)**

Very high 1
Rather high 2
Neither high nor low 3
Low 4
Very low 5

.

B7. (HAND RESPONDENT SHOWCARD B-5) How high are the levels of alcohol abuse in your community?

Very high 1
Rather high 2
Neither high nor low 3
Low 4
Very low 5

B8. (HAND RESPONDENT SHOWCARD B-5) How high are the levels of drug abuse in your community?

Very high 1
Rather high 2
Neither high nor low 3
Low 4
Very low 5

B9. (HAND RESPONDENT SHOWCARD B-5) How high is the level of poverty in your community?

Very high 1
Rather high 2
Neither high nor low 3
Low 4
Very low 5

B10. (HAND RESPONDENT SHOWCARD B-5) How high is unemployment in your community?

Very high 1
Rather high 2
Neither high nor low 3
Low 4
Very low 5

B11. (HAND RESPONDENT SHOWCARD B-6) How much do you agree with these statements for <u>your neighbourhood</u>? Please give your best guess.

For each statement read: In my neighbourhood…	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
	▼	▼	▼	▼	▼

a. There aren't many places where it is safe to walk at night

……..1…….2……..3…….4…….....5

b. A person gets mugged, assaulted, or attacked every few weeks

……..1…….2…..…..3…….4…… 5

c. There are broken bottles and rubbish lying in many yards and streets

……..1…….2…..…..3…….4…… 5

d. I have seen people using, selling, or buying drugs

……..1…….2……..3…….4…….....5

e. I often see drunk people on the street…..1…….2……...3…….4…… 5

f. Most people do not obey the law……..1…….2……3…….4…… 5

g. I do not feel safe when I walk around by myself at night

……..1…….2……..3…….4…….....5

h. People often damage, break or steal other people's things /property

……..1…….2……....3…….4…… 5

i. The people with the most money are the drug dealers/merchants

……..1…….2……...3…….4…….....5

j. There are a lot of poor people who don't have enough money for food and basic needs……..1…….2……..…..3…….4……....5

READ: *In every community, some people get along with others while others do not. Now I would like to talk to you about trust in your community*.

B12. <u>Generally</u> speaking, can most people in your community be trusted?

YES 1

NO 2

B13. (HAND RESPONDENT SHOWCARD B-6). In general, how much do you agree/disagree with each of these statements?

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
	▼	▼	▼	▼	▼

a. In this neighbourhood most people can be trusted ..... 1 ..... 2 ..... 3 ..... 4 5

b. In this neighbourhood, someone is likely to take advantage of you if you are not careful ..... 1 ..... 2 ..... 3 ..... 4 5

c. In this neighbourhood, most people are willing to help you if you need it ..... 1 ..... 2 ..... 3 ..... 4 5

d. In this neighbourhood, people generally do not trust each other in matters of lending/borrowing money ..... 1 ..... 2 ..... 3 ..... 4 5

e. I trust people from my neighbourhood to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

f. I trust people that I work with to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

g. I trust people from my church/place of worship to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

h. I trust people from my own ethnic/cultural group to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

i. I trust people from other ethnic/cultural groups to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

j. I trust shopkeepers in my neighbourhood to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

k. I trust local government officials to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

l. I trust representatives of national government to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

m. I trust the police in my neighbourhood to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

n. I trust teachers in this neighbourhood to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

o. I trust nurses and doctors in this neighbourhood to act in my best interests ..... 1 ..... 2 ..... 3 ..... 4 5

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
	▼	▼	▼	▼	▼

p. I trust social workers in this neighbourhood to act in my best interests

..... 1.....2 ..... 3..... 4..... 5

q. I trust strangers in this neighbourhood to act in my best interests

..... 1.....2 ..... 3..... 4..... 5

B14. (HAND RESPONDENT SHOWCARD B-7) How much are people in this neighbourhood willing to help their neighbours?

Never helping..... 1
Rarely helping..... 2
Sometimes helping 3
Helping most of the time 4
Always helping..... 5

B15. (HAND RESPONDENT SHOWCARD B-8) How likely is it that the community would get together to help someone at a time of crisis (e.g. illness)?

Very unlikely 1
Unlikely 2
Neither likely nor unlikely 3
Likely..... 4
Very likely 5

B16. (HAND RESPONDENT SHOWCARD B-8) How likely is it that the community will get together to help someone (in your neighbourhood) with an alcohol or drug problem?

Very unlikely 1
Unlikely 2
Neither likely nor unlikely 3
Likely..... 4
Very likely 5

B17. (HAND RESPONDENT SHOWCARD B-9) How close are the relationships that people in your neighbourhood have to each other?

Not at all strong/very distant 1
Somewhat distant 2
Neither distant nor close 3
Somewhat strong/close 4
Very strong/close 5

B18. (HAND RESPONDENT SHOWCARD B-10) How well do people in this neighbourhood get along with each other?

Not at all well/ a lot of conflict 1
Somewhat unwell- there is some conflict..... 2
Neither well nor unwell..... 3
Well, conflict is rare..... 4
Very well, no conflict 5

B19. (HAND RESPONDENT SHOWCARD B-11) Do people in this neighbourhood share the same values (beliefs)?

Strongly disagree..... 1
Disagree 2
Unsure/neutral 3
Agree 4
Strongly agree 5

B20. If you wanted to cut back on or stop your use of alcohol or drugs, do you know of any places you could go to for help?

YES 1
NO 2

B21. Please name all the alcohol and drug treatment/rehab centres that you have heard of **(DO NOT READ LIST ALOUD, MARK WITH AN X)**

Cape Town Drug Counselling Centre	Akron/Loyola	Stikland Neuroclinic D	Tabankulu
SANCA	Beth Rapha	Start to Stop (Kenilworth Outpatient)	Teen challenge
Toevlug	Orient/Centre for Holistic Medicine	Hesketh King	The Farm
Ramot	Clara Clinic	The next step	Serendipity
Kenilworth Place	De Novo	Pathways	Tijger Clinic
Stepping Stones	De Novo Youth	Lifeskills	Noupoort
Crescent Clinic	Kaya (Kenilworth Adolescent)	Horizon Half-way House	OTHER_____ _____
FASA	Serenity		

B22. (HAND RESPONDENT SHOWCARD B-12) How far is the alcohol and drug treatment/rehab centre where people in your community usually go to from where you live?

Between 1km and 5km 1
Between 5km and 10km 2
Between 10km and 15km 3
More than 15km 4
If more than 15km, estimate the distance _____km

B23. (HAND RESPONDENT SHOWCARD B-13) How long does it normally take to get there? (Note: best guess)

15 minutes or less 1
Between 16 and 30 minutes 2
Between 31 minutes and an hour (60 minutes)..... 3
More than an hour 4
If more than an hour, estimate the time _____mins

B24. In your community, are there enough services available to help people with alcohol/drinking problems?

YES 1
NO 2

B25. In your community, are there enough services available to help people with drug problems?

YES 1
NO 2

B26. Have you ever had to go without alcohol or drug treatment/rehab because you (or your family) needed the money for food, clothing, housing etc.?

YES 1
NO 2

B27. Have you ever had to go without alcohol or drug treatment/rehab because taking care of someone else was more important to you?

YES 1
NO 2

B28. (HAND RESPONDENT SHOWCARD B-14) **READ**: *Please tell me how strongly you agree with each of these statements*

READ: In my community……	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
	▼	▼	▼	▼	▼

a. Treatment for alcohol/drug problems is too expensive/costs too much money
.....1.....2.....3.....4.....5

b. There aren't enough alcohol and drug rehab services for my community
.....1.....2.....3.....4.....5

c. Lots of people need alcohol and drug treatment/rehab services in my community
.....1.....2.....3.....4.....5

d. There isn't enough help for people with alcohol and drug problems in my community .....1.....2.....3.....4.....5

e. People in my community can't afford (pay for) transport to get to alcohol/drug treatment.....1.....2.....3.....4.....5

f. Most people in my community don't know where to go for help with alcohol or drug problems .....1.....2.....3.....4.....5

g. For my community, it is too far to travel to the alcohol and drug treatment /rehab services .....1.....2..... 3..... 4 5

h. Most alcohol and drug treatment services do not seem to help people change their drinking or drug use .....1.....2.....3.. ..... 4.....5

i. People can't get to alcohol/drug treatment/rehab because transport is too expensive.....1.....2.....3.....4.....5

j. The waiting list to get into alcohol/drug treatment/rehab is too long
.....1.....2.....3.....4.....5

k. The operating times of the alcohol and drug rehab services are inconvenient
.....1.....2.....3.....4.....5

l. Most treatment/rehab services do not cater for my culture and language
.....1.....2.....3.....4.....5

m. Most people in my community do not have their own transport to get to rehab centres .....1.....2.....3.....4.....5

n. In my community, buying food is more important than paying for treatment/rehab
.....1.....2.....3.....4.....5

o. Alcohol/drug treatment doesn't seem to work
.....1.....2.....3.....4.....5

SECTION C: STIGMA, ATTITUDES AND BELIEFS ABOUT SUBSTANCE ABUSE AND TREATMENT

READ: *Now I am going to ask about how people in your community treat people with alcohol and drug problems.*

C1. (HAND RESPONDENT SHOWCARD C-1). Please tell me how strongly you agree or disagree with each of the following statements.

READ: People in my community think that……	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
	▼	▼	▼	▼	▼
a. Drug addicts are dangerous	1	2	3	4	5
b. Drug addicts cannot be trusted	1	2	3	4	5
c. Drug addicts are to blame for their problems	1	2	3	4	5
d. Drug addicts cannot keep a job	1	2	3	4	5
e. Only immoral people use drugs	1	2	3	4	5
f. Drug addicts never get better	1	2	3	4	5
g. Drug addicts could pull themselves together if they wanted to	1	2	3	4	5
h. Only weak people become drug addicts	1	2	3	4	5
i. Alcoholics are dangerous	1	2	3	4	5
j. Alcoholics cannot be trusted	1	2	3	4	5
k. Alcoholics are to blame for their own problems	1	2	3	4	5
l. Alcoholics cannot keep a job	1	2	3	4	5
m. Only immoral people become alcoholics	1	2	3	4	5
n. Alcoholics never get better	1	2	3	4	5
o. Alcoholics could pull themselves together if they wanted to	1	2	3	4	5
p. Alcoholics lack willpower	1	2	3	4	5

C2. (HAND RESPONDENT SHOWCARD C-1) **READ:** Now I want to know about <u>your community's beliefs about treatment for alcohol and drug problems</u>. If you are unsure of your answer, please give your <u>best guess</u>.

Read: People in my community think that…	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
	▼	▼	▼	▼	▼

a. Only White people go to treatment/rehab..... 1.....2 .....……3 .... …….4..... 5

b. Men need treatment more than women……..1…….2..... ……3..……4 5

c. My community thinks that treatment/rehab is only for people with no self-control or will power……1…….2 ..... ……3..……4 5

d. My community thinks that treatment/rehab hardly ever helps people with alcohol/drug problems ..... 1.....2 .....……3 .... …….4..... 5

e. My community disapproves of people who go to treatment/rehab ..... 1.....2 .....……3 .... …….4..... 5

f. My community thinks that treatment/rehab could improve a person's health ..... 1.....2 .....……3 .... …….4..... 5

g. People in my community think that people who go to rehab end up using more alcohol/ drugs than they did before……1…….2..... ……3. …….4..... 5

h. People in my community think that the things people say in treatment/rehab are not kept confidential..... 1.....2 .....……3 .... …….4..... 5

i. People in my community think that the rehab centres won't understand the kinds of problems they face ..... 1.....2 .....……3 .... …….4..... 5

j. People in my community think that treatment/rehab for alcohol and drug problems does not work ..... 1.....2 .....……3 .... …….4..... 5

k. My community thinks that treatment/rehab could improve family relationships ..... 1.....2 .....……3 .... …….4..... 5

l. People in my community think that rehab only works if people get treatment away from their communities ..... 1.....2 .....……3 .... …….4..... 5

SECTION D: PAST NEED FOR ALCOHOL AND DRUG ABUSE TREATMENT

D1. **READ:** *Next I am going to ask some questions about your use of alcohol and drugs* ***before you went to treatment/rehab****.*

Type of drug ASK D1a FOR EACH ROW. IF RESPONDENT ANSWERS "NO" GO TO NEXT ROW. IF RESPONDENT ANSWERS "YES" TO D1a, THEN ASK D1b-f.	**D1a. Have you used this drug before**	**D1b. Have you used this drug at least 1 per year**	**D1c. Used this drug on a monthly basis**	**D1d. Used this drug on a weekly basis**	**D1e. Used this drug a couple of times/ week**	**D1f. Used this drug almost every day**
Alcohol	YES……1 NO……..2➊ (➊ to next row)	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Cannabis/dagga/ganja	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Mandrax/white pipe	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Rock/Crack cocaine	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Cocaine powder	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Methamphetamine (Tik/ Choef)	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Heroin (Thai white, H, smack, Brown)	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Ecstasy (E/X)	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Tranquilizers (used without a prescription)	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Prescription pain meds (eg codeine)	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2
Other drugs: specify: _____	YES……1 NO……..2➊	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2	YES…1 NO…..2

D2. How old were you when you first started using

Alcohol (beyond a sip)..... |__|__| years

Drugs..... |__|__| years

DK/UNSURE .....-4

REFUSED .....-7

D3. (HAND RESPONDENT SHOWCARD D-1)

NOTE: DO NOT ASK D3 IF PERSON DOES NOT DRINK ALCOHOL- THEN SKIP TO D4	**In the past month**	**2-12 months ago**	**1 or more years ago**	**Never**
READ: When was the last time that	▼	▼	▼	▼

a1. You ended up drinking <u>much more</u> than you planned to (e.g once you started you couldn't stop) ..... …….1.... …….2 ..…… ... 3..... …4

a2. You ended up drinking for a <u>much longer period</u> (time) than you planned to? ..... …….1.... …….2 ..…… ... 3..... …4

b1. You tried, <u>unsuccessfully</u>, to cut down or stop drinking alcohol? ..... …….1.... …….2 ..…… ... 3..... …4

b2. You <u>wanted</u> to stop or cut down on your drinking?.1 .... …….2 ..…… ... 3..... …4

c. You <u>spent a lot of time</u> drinking, being intoxicated, drunk, or being hung over? ..... …….1.... …….2 ..…… ... 3..... …4

d. You started to <u>drink instead of</u> working or spending time with your friends and family or doing other activities such as sport..... …….1.... …….2 ..…… ... 3..... …4

e. You <u>kept on drinking</u> even though it caused you <u>psychological problems</u>, like making you depressed or anxious, making it difficult to sleep or causing "blackouts"? ..... …….1.... …….2 ..…… ... 3..... …4

f. You <u>kept on drinking</u> even though it caused you <u>significant health problems</u> or made a health problem/illness worse..... …….1.... …….2 ..…… ... 3..... …4

g. You <u>needed to drink more</u> to get the feeling you got when you first started drinking ..... …….1.... …….2 ..…… ... 3..... …4

h1. You found you had <u>withdrawal symptoms</u> (felt sick) when you cut down or stopped drinking (e.g. shakes, nausea/vomiting, anxious, sweating, racing heart, trouble sleeping) ..... …….1.... …….2 ..…… ... 3..... …4

READ: When was the last time that	**In the past month** ▼	**2-12 months ago** ▼	**1 or more years ago** ▼	**Never** ▼

h2. You started the day with a drink or took some other drug/medication to stop yourself from becoming sick or getting the shakes? .... …….1.... …….2 ..…… ... 3..... …4

i1. You missed work or school because you were drunk or very hung over? ..... …….1.... …….2 ..…… ... 3..... …4

i2. You failed to do what was normally expected of you because of your drinking (e.g. did a bad job at work, failed subjects at school, or did not take proper care of your children because of drinking alcohol ..... …….1.... …….2 ..…… ... 3..... …4

j. You drank alcohol in a situation where it might have been dangerous or unsafe? (e.g. drinking and driving) ..... …….1.... …….2 ..…… ... 3..... …4

k. Your use of alcohol got you into trouble with the law or the police (e.g. public drunkeness) ..... …….1.... …….2 ..…… ... 3..... …4

li. Your use of alcohol caused problems with other people such as family, friends or people at work ..... …….1.... …….2 ..…… ... 3..... …4

l2. Your use of alcohol got you into physical fights or arguments ..... …….1.... …….2 ..…… ... 3..... …4

D4. (HAND RESPONDENT SHOWCARD D-1) . **READ:** *I want to go over a list of problems related to drug use, not including alcohol but including the use of dagga and medicines.*

NOTE: SKIP to D5 IF PERSON DOES NOT USE DRUGS OTHER THAN ALCOHOL **READ**: When was the last time that	**In the past month** ▼	**2-12 months ago** ▼	**1 or more years ago** ▼	**Never** ▼

a. You took drugs in larger amounts or over a longer period than intended? ..... …….1.... …….2 ..…… ... 3..... …4

b1. You tried, unsuccessfully, to cut down or stop using drugs? ..... …….1.... …….2 ..…… ... 3..... …4

b2. You wanted to stop or cut down on your drug use ..... …….1.... …….2 ..…… ... 3..... …4

c. You spent a lot of time using the drug, doing whatever you had to do to get the drug, or recovering from using the drug ..... …….1.... …….2 ..…… ... 3..... …4

READ: When was the last time that	**In the past month** ▼	**2-12 months ago** ▼	**1 or more years ago** ▼	**Never** ▼

d. You started to use drugs instead of working, spending time with your friends and family, or doing other activities such as sport.. …….1…. …….2 ..…… ... 3..... …4

e. You kept on using the drug even though the drugs caused you psychological problems, like making you depressed ..... …….1…. …….2 ..…… ... 3..... …4

f. You kept on using the drug even though it caused you significant health problems or made a health problem/illness worse ..... …….1…. …….2 ..…… ... 3..... …4

g1. You needed to use more of the drug to get the feeling you got the first time you used the drug ..... …….1…. …….2 ..…… ... 3..... …4

g2. When you used the same amount of the drug, it had much less effect than before ..... …….1…. …….2 ..…… ... 3..... …4

h1. You found you had withdrawal symptoms (felt sick) when you cut down or stopped using the drug..... …….1…. …….2 ..…… ... 3..... …4

h2. You used drugs to stop yourself feeling sick from withdrawal symptoms, so that you would feel better? ..... …….1…. …….2 ..…… ... 3..... …4

i1. You missed work or school because you were high or very hung over? ..... …….1…. …….2 ..…… ... 3..... …4

i2. You did a bad job at work, failed subjects at school, or did not take proper care of your children because of drug use ..... …….1…. …….2 ..…… ... 3..... …4

j. You used drugs in a situation where it might have been dangerous to be using? (e.g. driving while high..... …….1…. …….2 ..…… ... 3..... …4

a. Your drug use got you into trouble with the law or the police ..... …….1…. …….2 ..…… ... 3..... …4

l1. Your use of drugs caused problems with other people (family, friends or people at work) ..... …….1…. …….2 ..…… ... 3..... …4

l2. You got into physical fights or arguments because of your use of drugs ..... …….1…. …….2 ..…… ... 3..... …4

D5. **READ:** *Next, I'm going to ask you some questions about your use of alcohol and drugs in the last 12 months.*

READ: During the last 12 months, did …	YES ▼	NO ▼
a. You use larger amounts of alcohol/drugs or use them for a longer periods of time than you had planned to	1	0
b. You try to cut down on your alcohol/drug use but were unable to do it	1	0
c. You spend a lot of time getting alcohol/drugs, using, or recovering from their use	1	0
d. You get so high or sick from alcohol/drugs that it kept you from doing work, going to school or caring for children	1	0
e. You get so high or sick from alcohol/drugs that it caused an accident or put you or others in danger	1	0
f. You spend less time at work, school, or with friends (important activities) so that you could use alcohol/drugs	1	0
g. Your alcohol/drug use cause emotional or psychological problems	1	0
h. Your alcohol/drug use cause problems with family, friends, work or the police	1	0
i. Your alcohol/drug use cause physical health or medical problems	1	0
j. You increase the amount of alcohol/drug you were taking so that you could get the same effects as before	1	0
l. You ever keep taking alcohol/ drugs to avoid withdrawal, "come down" or keep from getting sick	1	0
m. You get sick or have withdrawal when you stopped taking or missed taking alcohol/drugs	1	0

READ ALOUD: The next set of questions focus on your thoughts, feelings and actions BEFORE you last went to treatment/rehab. Think about where you were living, where you were working, and with whom you were friends before you last went to treatment.

D6. (HAND RESPONDENT A CALENDAR). Think about the most recent time you went to treatment/rehab. When did you start going to this alcohol/drug treatment/rehab? *(Ask respondents to trace the start of rehab back on a calendar if necessary)*

YEAR..... |__|__|__|__|

MONTH ..... |__|__|

DAY ..... |__|__|

READ ALOUD: Thinking about the time just before you most recently went to rehab, that is the time just before (**give date of start of rehab in D6**), please tell me: Who were you living with? Where were you staying? Where were you working? Who did you hang out with?

Now, thinking about this time just before you started going to treatment/rehab, please answer the following questions:

D7. (HAND RESPONDENT SHOWCARD D-2) **READ:** On a scale of 1 (Strongly disagree) to 10 (Strongly agree) Please tell me how much you agree with the following statements. **[CIRCLE THE RESPONSE]**

a. The way most people view alcohol and drug users affects me personally
1…….2..……3..……...4..……5..……6..……7…… 8…… 9...…… 10

b. I worry that my behaviour will be viewed by others as that of a drinker/drug user
1…….2..……3..……...4..……5..……6..……7…… 8…… 9...…… 10

c. When mixing with people who do not use alcohol/drugs, I feel that they are judging me because of my (past) use of alcohol/drugs
1…….2..……3..……...4..……5..……6..……7…… 8…… 9...…… 10

d. I often think that people discriminate against alcohol and drug users
1…….2..……3..……...4..……5..……6..……7…… 8…… 9...…… 10

e. Most people judge alcohol and drug users on the basis of their alcohol and drug use (rather than who they are as people)
1…….2..……3..……...4..……5..……6..……7…… 8…… 9...…… 10

f. Being a (ex-) drinker/drug user influences how drinkers/drug users act with me
1…….2..……3..……...4..……5..……6..……7…… 8…… 9...…… 10

g. I always think about the fact that I am a (ex-) drinker/drug user when I mix with people who do not use alcohol/drugs

1…….2..……3..……...4..……5..……6..……7…… 8…… 9..…… 10

h. Being an (ex) alcohol/drug user influences how people behave towards me

1…….2..……3..……...4..……5..……6..……7…… 8…… 9..…… 10

i. Most people are prejudiced against drinkers/drug users

1…….2..……3..……...4..……5..……6..……7…… 8…… 9..…… 10

j. Most people have a problem viewing alcohol/drug users as equals

1…….2..……3..……...4..……5..……6..……7…… 8…… 9..…… 10

D8. Before you went to treatment/rehab did you think you had an alcohol or drug problem?

YES, ALCOHOL 1
YES , DRUG.....2
YES, ALCOHOL AND DRUG.....3
NO PROBLEM 4

D9. (HAND RESPONDENT SHOWCARD D-3) Before you went to treatment/rehab, how serious a problem did you think your alcohol/drug use was?

Not at all serious..... 1
Slightly serious 2
Moderately serious 3
Considerably serious..... 4
Extremely serious..... 5

D10. Before you went to treatment/rehab, did you think you needed help/ treatment/rehab to change your alcohol and/ or drug use?

YES 1
NO 2

D11. Before you went to treatment did other people (eg family/friends) suggest that you needed or should get help (e.g. treatment/rehab) to change your use of alcohol and/or drugs?

YES 1
NO 2

D12. Before you went to treatment/rehab, did you want help (e.g. treatment/rehab) to change your use of alcohol and/or drugs?

YES 1
NO 2

D13. (HAND RESPONDENT SHOWCARD D-4) Before you went to treatment/rehab how important was it for you to get help for your alcohol and/or drug problems?

Not at all 1
Slightly 2
Moderately 3
Considerably 4
Extremely 5

SECTION E: SOCIAL COGNITIVE FACTORS: PROBLEM RECOGNITION, MOTIVATION AND SELF-EFFICACY TO CHANGE SUBSTANCE USE

READ ALOUD*: Thinking about the time just before you started going to treatment/rehab that is, the time before (**give date person started treatment**), please answer the following questions:*

E1. (HAND RESPONDENT SHOWCARD E-1) Thinking about the time just before you started treatment/rehab, that is, the time before (**give date person started treatment**)..

Could you avoid using alcohol/drugs when … (That is not use drugs when…)	Strongly disagree	Disagree	Neutral/ Unsure	Agree	Strongly agree
	▼	▼	▼	▼	▼

a. You had withdrawal symptoms (shakes, nausea)

.... 1.....……2 ……...3 ……..4…….5

b. You had a headache..... 1.....……2 ……...3 ……..4…….5

c. You were feeling sad or depressed ... 1.....……2 ...……...3 ……..4…….5

d. You wanted to relax ..... 1.....……2 ...……...3 ……..4…….5

e. You were concerned about someone 1.....……2 ...……...3 ……..4…….5

f. You were very worried ..... 1.....……2 ...……...3 ……..4…….5

g. You wanted to have just a drink/ taste1 .....……2 ...……...3 ……..4…….5

h. You were offered a drink or drugs by others

.... 1.....……2 ...……...3 ……..4…….5

i. You had dreams about alcohol/drugs 1.....……2 ...……...3 ……..4…….5

j. You wanted to test your willpower or self-control over alcohol and/or drugs

.... 1.....……2 ...……...3 ……..4…….5

k. You felt a (physical) need or craving for alcohol and/or drugs (eg you wanted them so badly you could taste them) ..... 1.....……2……..3……..4 ……5

l You felt tired or had trouble sleeping . 1.....……2 ...……...3 ……..4…….5

m. You were in pain ..... 1.....……2 ...……...3 ……..4…….5

n. You were frustrated..... 1.....……2 ...……...3 ……..4…….5

o. You saw others drinking or using drugs at a bar, shebeen, club, bash or a party

.... 1.....……2 ...……...3 ……..4…….5

p. You felt like everything was going wrong for you

.... 1.....……2 ...……...3 ……..4…….5

q. People you used to drink or use drugs with put pressure on you to drink or use drugs

.... 1.....……2 ...……...3 ……..4…….5

r. You felt angry inside ..... 1.....……2 ...……...3 ……..4…….5

s. You suddenly had a strong desire/need to drink or use drugs

.... 1.....……2 ...……...3 ……..4…….5

t. You were excited or celebrating..... 1.....……2 ...……...3 ……..4…….5

E2. (HAND RESPONDENT SHOW CARD E-1) Thinking about the time just before you started treatment/rehab (***Give date provided in D6 again****)* how much do you agree with these statements*:*

READ: At the time <u>just before</u> you started treatment/rehab…. **(Please emphasize these questions refer to time before went to treatment)**	Strongly disagree	Disagree	Unsure	Agree	Strongly Agree
	▼	▼	▼	▼	▼

a. You wanted to make changes in your use of alcohol/drugs

....1 ..... 2..... 3..... 4.....5

b. You wondered whether you were an addict or an alcoholic

READ: At the time just before you started treatment/rehab….	Strongly disagree ▼	Disagree ▼	Unsure ▼	Agree ▼	Strongly Agree ▼

....1 ..... 2..... 3..... 4.....5

c. You felt that if you didn't change your alcohol/drug use, your problems would get worse ....1 ..... 2..... 3..... 4.....5

d. You had already started making some changes in your use of alcohol/drugs ....1 ..... 2..... 3..... 4.....5

e. You had been drinking/using drugs too much, but you had managed to change that..... .....1 ..... 2..... 3..... 4.....5

f. You wondered if your use of alcohol/drugs was hurting other people ....1 ..... 2..... 3..... 4.....5

g. You had a drinking/drug problem..... ..... 1 ..... 2..... 3..... 4.....5

h. You were not just thinking about changing your use of alcohol/drugs, you were already doing something about it..... .....1 ..... 2..... 3..... 4.....5

i. You had already changed your use of alcohol/drugs and were looking for ways to stop slipping back to the old pattern of use . .....1 ..... 2..... 3..... 4.....5

j. You had a serious problem with alcohol/drugs .....1 ..... 2..... 3..... 4.....5

k. You wondered if you were in control of your alcohol and/or drug use. ....1 ..... 2..... 3..... 4.....5

l. Your alcohol/drug use was causing a lot of harm .....1 ..... 2..... 3..... 4.....5

m. You were actively doing things to cut down or stop your use of alcohol/drugs ....1 ..... 2..... 3..... 4.....5

n. You wanted help to keep from going back to the alcohol/drug problem that you had had in the past ....1 ..... 2..... 3..... 4.....5

o. You knew that you had an alcohol/drug problem.....1 ..... 2..... 3..... 4.....5

p. There are times when you wondered whether you drank/drugged too much ....1 ..... 2..... 3..... 4.....5

q. You were an alcoholic and/or a drug addict. .....1 ..... 2..... 3..... 4.....5

r. You were working hard to change your use of alcohol/drugs ....1 ..... 2..... 3..... 4.....5

s. You made some changes to your alcohol/drug use and you wanted help to keep from going back to the way you used to drink/use drugs
....1 ..... 2..... 3..... 4.....5

E3. (HAND RESPONDENT SHOW CARD E-1)

READ: At the time <u>just before you started treatment/rehab</u>, your alcohol/drug use was …	Strongly disagree ▼	Disagree ▼	Unsure ▼	Agree ▼	Strongly Agree ▼
a. A problem for you	1	2	3	4	5
b. More trouble than it was worth.....	1	2	3	4	5
c. Causing problems with the law	1	2	3	4	5
d. Causing problems in thinking or doing your work	1	2	3	4	5
e. Causing problems with your family or friends	1	2	3	4	5
f. Causing problems in finding or keeping a job	1	2	3	4	5
g. Causing problems with your health.....	1	2	3	4	5
h. Making your life become worse and worse..	1	2	3	4	5
i Going to cause your death if you did not stop soon.	1	2	3	4	5

E4. (HAND RESPONDENT SHOWCARD E-1)

READ: At the time <u>just before you started treatment/rehab</u>…*(that is GIVE DATE)*	Strongly disagree ▼	Disagree ▼	Unsure ▼	Agree ▼	Strongly Agree ▼
a. You needed help in dealing with your drug/alcohol use	1	2	3	4	5
b. It was urgent that you got help immediately for your alcohol/drug use	1	2	3	4	5
c. You were tired of the problems caused by alcohol/drugs	1	2	3	4	5
d. You were prepared to give up your friends and hangouts to solve your alcohol/drug problems	1	2	3	4	5
e. You could stop using alcohol/drugs without any help	1	2	3	4	5
f. Your life had gone out of control.....	1	2	3	4	5

g. You wanted to get your life sorted/ straightened out 1 ..... 2..... 3.....4. 5

h. You had too many outside responsibilities to be in treatment/rehab
....1 ..... 2..... 3.....4. 5

i. The treatment/rehab programme seemed too demanding for you
....1 ..... 2..... 3.....4. 5

j. You thought treatment/rehab would be your last chance to solve your alcohol/drug problem..... .....1 ..... 2..... 3.....4. 5

k. You thought treatment/rehab would not be very helpful to you
....1 ..... 2..... 3.....4. 5

l. You planned to stay in treatment/rehab for a while ..1 ..... 2..... 3.....4. 5

m. You went to treatment/rehab because someone else made you come.
....1 ..... 2..... 3.....4. 5

n. You believed that treatment/rehab could really help you
....1 ..... 2..... 3.....4. 5

o. You wanted to be in a treatment/rehab programme
....1 ..... 2..... 3.....4. 5

p. You have people close to you who motivate and encourage you to stay clean/not drink..... .....1 ..... 2..... 3.....4. 5

q. You have close family who help you stay away from alcohol/drugs
....1 ..... 2..... 3.....4. 5

r. You have good friends who do not use alcohol/drugs
....1 ..... 2..... 3.....4. 5

s. You have people close to you who can always be trusted
....1 ..... 2..... 3.....4. 5

t. You have people close to you who understand your situation and problems
....1 ..... 2..... 3.....4. 5

u. You live in situations where alcohol/drug use is common
....1 ..... 2..... 3.....4. 5

v. You have people close to you who expect you to make positive changes in your life..... ....1 ..... 2..... 3.....4. 5

w. You have people close to you who help you believe in yourself (feel confident)
....1 ..... 2..... 3.....4. 5

x. You have people close to you who respect you and your efforts in treatment/rehab
....1 ..... 2..... 3.....4. 5

SECTION F: SOCIAL SUPPORT AND MENTAL HEALTH

F1. (HAND RESPONDENT SHOWCARD F-1) Thinking about the time just before you started treatment/rehab, that is, the time before (**give date in D6 that the person started treatment**)..

ASK: *How often did you have…*	None of the time ▼	A little of the time ▼	Some of the time ▼	Most of the time ▼	All of the time ▼
a. Someone that listened when you needed to talk	1	2	3	4	5
b. Someone that gave you information to help you understand a situation	1	2	3	4	5
c. Someone that gave you good advice about a problem	1	2	3	4	5
d. Someone that talked to you about your problems	1	2	3	4	5
e. Someone whose advice you really wanted	1	2	3	4	5
f. Someone that you could share your most private worries with	1	2	3	4	5
g. Someone that you could ask for advice about how to deal with a personal problem	1	2	3	4	5
h. Someone that would understand your problems	1	2	3	4	5
i. Someone that would help you if you were forced to stay in bed	1	2	3	4	5
j. Someone that would take you to the doctor if you needed it	1	2	3	4	5
k. Someone that would prepare your meals if you were unable to do it					

ASK: *How often did you have…*	None of the time	A little of the time	Some of the time	Most of the time	All of the time
	▼	▼	▼	▼	▼
	1	2	3	4	5
l. Someone that would help with daily chores if you were sick	1	2	3	4	5
m. Someone that would show you love and affection	1	2	3	4	5
n. Someone who loves you and made you feel wanted	1	2	3	4	5
o. Someone who hugs you	1	2	3	4	5
p. Someone to have a good time with	1	2	3	4	5
q. Someone to relax with	1	2	3	4	5
r. Someone to do something fun with	1	2	3	4	5
s. Someone to do things with to help you get your mind off your problems	1	2	3	4	5

F2. (HAND RESPONDENT SHOWCARD F-2) Thinking back to the time **just before you started treatment/rehab**, that is, the time before (*give date in D6 that the person started treatment)..*

READ: *Please tell me how true each of the following statements are for you*	Strongly disagree	Disagree	Agree	Strongly agree
	▼	▼	▼	▼
a. It was hard to find someone to go out with you for the day	0	1	2	3
b. There was no-one you could share your most private worries with	0	1	2	3
c. If you were sick, you easily found someone to help you with your daily chores	0	1	2	3
d. There was someone you could ask for advice about handling problems with your family	0	1	2	3
e. If you decided one afternoon that you would like to go to a movie that evening, you easily found someone to go with you	0	1	2	3
f. You knew someone you could ask for advice about a personal problem	0	1	2	3

g. You didn't often get invited to do things with other people
. ..... ……..0……1 ...……2 …….3

h. If you went away for a few weeks, you <u>struggled</u> to find someone to look after your house/flat/belongings. ..... ……..0……1 ...……2 …….3

i. You could easily find someone to join you for a meal
..... ……..0……1 ...……2 …….3

j. There was someone you could phone who would give you a lift home if you needed it
. ..... ……..0……1 ...……2 …….3

k. It was <u>hard</u> to find someone who would give you good advice about how to deal with a family crisis..... ……..0……1 ...……2 …….3

l. It was difficult to find someone to help you move to a new house/flat
. ..... ……..0……1 ...……2 …….3

F3. (HAND RESPONDENT SHOWCARD F-3) How much do you agree with these statements?

READ: <u>Thinking back to the time **just before you started treatment/rehab**</u>, that is, the time before (*give date in D6)*	Strongly disagree ▼	Disagree ▼	Neutral ▼	Agree ▼	Strongly Agree ▼

a. You did not have a lot to be proud of….1……2 ..... 3.....4. .. ……5

b. You were not satisfied with who you were as a person
..... ….1……2…… ..... 3.....4. .. ……5

c. You felt that you were basically no good as a person
..... ….1 ……2... ..... 3.....4. .. ……5

d. You felt like a failure ..... ….1 ……2... ..... 3.....4. .. ……5

e. You wished you had more respect for yourself.....
..... ….1 ……2... ..... 3.....4. .. ……5

f. You felt that you were unimportant to others
..... ….1 ……2... ..... 3.....4. .. ……5

F4. (HAND RESPONDENT SHOWCARD F-3) **READ:***The next questions are about your emotions. How much do you agree with these statements.*

READ: *In the 3 months before you went to treatment/rehab (give dates), you …*	Strongly disagree ▼	Disagree ▼	Neutral ▼	Agree ▼	Strongly Agree ▼
a. Felt sad or depressed	1	2	3	4	5
b. Had thoughts of committing suicide	1	2	3	4	5
c. Felt lonely	1	2	3	4	5
d. Felt uninterested in life	1	2	3	4	5
e. Felt extra tired	1	2	3	4	5
f. Worried a lot	1	2	3	4	5
g. Had trouble sitting still for long	1	2	3	4	5
h. Had trouble sleeping	1	2	3	4	5
i. Felt anxious or nervous	1	2	3	4	5
j. Had trouble concentrating or remembering things	1	2	3	4	5
k. Felt afraid of certain things, like lifts, crowds, or going out alone	1	2	3	4	5
l. Felt tense or wound-up	1	2	3	4	5
m. Felt tightness or tension in your muscles	1	2	3	4	5

SECTION G: UTILIZATION OF ALCOHOL AND/OR DRUG TREATMENT SERVICES

READ: *Now, I'm going to ask you some questions about your use of different types of services for alcohol and drug problems and your experience of treatment/rehab.*

G1. How many times have you received treatment for an alcohol/drug problem?

Never ..... 1 ➊
Only once 2

2 times 3

3 times 4

4 or more times 5

LOGIC: ➊ SKIP TO G4 IF NO, DK/UNSURE, OR REFUSED

G1a-e. **NOTE: ASK G1b FOR EACH ROW. IF RESPONDENT ANSWERS "NO" GO TO NEXT ROW. IF RESPONDENT ANSWERS "YES", THEN ASK G1c-f.**

READ: Have you gone for treatment/ rehab at any of the following places?	***G1a Have you ever, in your lifetime, been to…***	***G1b Altogether how many times were you in…***	***G1c In the past 12 months have you been in...*** *(if G1c = no, skip to G1e)*	***G1d Altogether how many days in the past 12 months were you in***	***G1e The last time you were in… did you complete treatment?***
1. An Alcoholics Anonymous/ Alcoholics Victorious meeting	YES……1 NO……..2 ➊ (➊ to next row)	__|__||__|	YES……1 NO……..2	__|__||__|	YES……1 NO……..2
2. A Narcotics Anonymous (NA) meeting	YES……1 NO……..2➊	__|__||__|	YES……1 NO……..2	__|__||__|	YES……1 NO……..2
3. A detoxification programme in a hospital	YES……1 NO……..2➊	__|__||__|	YES……1 NO……..2	__|__||__|	YES……1 NO……..2
4. An inpatient programme in a hospital (Stikland)	YES……1 NO……..2➊	__|__||__|	YES……1 NO……..2	__|__||__|	YES……1 NO……..2
5. An Outpatient alcohol/drug treatment/rehab (SANCA/CTDCC)	YES……1 NO……..2➊	__|__||__|	YES……1 NO……..2	__|__||__|	YES……1 NO……..2
6. An Inpatient, rehab programme (e.g. DeNovo, Ramot, Toevlug)	YES……1 NO……..2➊	__|__||__|	YES……1 NO……..2	__|__||__|	YES……1 NO……..2
7. Any other place? Specify_____ _____ _____ _____	YES……1 NO……..2 ➊ (➊ to next row)	__|__||__|	YES……1 NO……..2	__|__||__|	YES……1 NO……..2

G2. (HAND RESPONDENT SHOWCARD G-1) Think about the last time you were in treatment/rehab for alcohol/drug related problems.

READ: *How much do you agree with the following statements?*	Strongly Disagree ▼	Disagree ▼	Unsure ▼	Agree ▼	Strongly Agree ▼

a. The staff did not always understand the kind of help I wanted

.....1..... ….2 ……3……..4…….5

b. The staff and I had different ideas about my goals for treatment

.....1..... ….2 ……3……..4…….5

c. There was always a member of staff available when I wanted to talk

.....1..... ….2 ……3……..4…….5

d. The staff motivated me to sort out my problems

.....1..... ….2 ……3……..4…….5

e. The staff were good at their jobs.....1..... ….2 ……3……..4…….5

f. The decisions made about my treatment were explained to me

.....1..... ….2 ……3……..4…….5

g. I received the help that I was looking for

.....1..... ….2 ……3……..4…….5

h. I did not like all the counselling sessions I attended

.....1..... ….2 ……3……..4…….5

i. I did not have enough time to sort out my problems

.....1..... ….2 ……3……..4…….5

j. I did not like some of the rules and regulations at the treatment/rehab facility

.....1..... ….2 ……3……..4…….5

k. The staff and I had different ideas about my goals for treatment

.....1..... ….2 ……3……..4…….5

l. The times that the treatment programme/rehab were open were convenient for me

.....1..... ….2 ……3……..4…….5

m. Treatment/rehab programme expected me to learn responsibility and self-discipline

.....1..... ….2 ……3……..4…….5

n. The rehab was organized and run well

.....1..... ….2 ……3……..4…….5

o. You were satisfied with this rehab…..1…… ….2 …….3 ……..4…….5

p. The staff at this rehab were good at doing their jobs

.....1..... ….2 …….3……..4…….5

q. I got plenty of personal individual attention at this rehab

.....1..... ….2 …….3……..4…….5

r. Where this rehab was located was convenient for you

.....1..... ….2 …….3……..4…….5

G3a. (HAND RESPONDENT SHOWCARD G-2) Thinking about the last time you received help for an alcohol/drug problem, how would you rate the quality of services received?

Poor.....1
Fair 2
Good.....3
Excellent.....4

G3b. (HAND RESPONDENT SHOWCARD G-3) Did you get the kind of service you wanted the last time you received help for an alcohol/drug problem?

NO, definitely not.....1
NO, not really 2
YES, generally.....3
YES, definitely 4

G3c. (HAND RESPONDENT SHOWCARD G-3) Were all of your needs met the last time you received help for an alcohol/drug problem?

NO, definitely not.....1
NO, I don't think so.....2
YES, I think so.....3
YES, definitely 4

G3d. (HAND RESPONDENT SHOWCARD G-3) If a friend of yours needed help for an alcohol/drug problem, would you recommend the organization/treatment centre that helped you the last time?

NO, definitely not.....1
NO, I don't think so.....2
YES, I think so.....3
YES, definitely.....4

G3e. (HAND RESPONDENT SHOWCARD G-4) How satisfied are you with the amount of help you received the last time you received help for an alcohol/drug problem?

Quite dissatisfied.....1
Indifferent/ mildly dissatisfied.....2
Mostly satisfied.....3
Very satisfied.....4

G3f. (HAND RESPONDENT SHOWCARD G-3) Did the services you received (the last time you got help for an alcohol/drug problem) help you deal more effectively with your problems?

NO, definitely not.....1
NO, I don't think so.....2
YES, I think so.....3
YES, definitely.....4

G3g. (HAND RESPONDENT SHOWCARD G-4) Generally, how satisfied are you with the overall service you received the last time you got help for an alcohol/drug problem?

Quite dissatisfied.....1
Indifferent/ mildly dissatisfied.....2
Mostly satisfied.....3
Very satisfied.....4

G3h. (HAND RESPONDENT SHOWCARD G-3) If you needed help with an alcohol/drug problem in the future, would you go back to the place where you received help the last time?

NO, definitely not.....1
NO, I don't think so.....2
YES, I think so.....3
YES, definitely.....4

G4. (HAND RESPONDENT SHOWCARD G-1) Think about <u>the last time you were in treatment/rehab</u> for alcohol/drug related problems.

READ: *How much do you agree with the following statements?*	Strongly Disagree ▼	Disagree ▼	Unsure ▼	Agree ▼	Strongly Agree ▼
a. You trusted your counselor	1	2	3	4	5
b. You found it easy to understand what your counselor was telling you	1	2	3	4	5
c. Your counselor was easy to talk to	1	2	3	4	5
d. You were motivated and encouraged by your counselor	1	2	3	4	5
e. Your counselor recognized the progress you made in treatment/rehab	1	2	3	4	5
f. Your counselor was well-organized and prepared for each counseling session	1	2	3	4	5
g. Your counselor was sensitive to your situation and problems	1	2	3	4	5
h. Your counselor made you feel foolish or ashamed	1	2	3	4	5
i. Your counselor viewed your problems and situations realistically	1	2	3	4	5
j. Your counselor helped you develop confidence in yourself	1	2	3	4	5

READ: *How much do you agree with the following statements?*	Strongly Disagree ▼	Disagree ▼	Unsure ▼	Agree ▼	Strongly Agree ▼

k. Your counselor respected you and your opinions

.....1..... ….2 …….3……..4…….5

m. You could depend on your counselor's understanding

.....1..... ….2 …….3……..4…….5

n. Your treatment plan had reasonable objectives

.....1..... ….2 …….3……..4…….5

G5. (HAND RESPONDENT SHOWCARD G-5). **READ** A lot of people list reasons that make it difficult for them to get into a treatment/rehab programme. *Think back to the time <u>just before you went to treatment/rehab</u> (give date in D6)*.

ASK: At that time, what were the factors that made it more difficult for you to go to treatment/rehab	Strongly disagree ▼	Disagree ▼	Neutral ▼	Agree ▼	Strongly Agree ▼

1. My drinking/drug use seemed fairly normal to me

..... 1 ..... 2 ..... 3..... 4..... …….5

2. No one encouraged me to get help for my alcohol/drug use

..... 1 ..... 2 ..... 3..... 4..... …….5

3. I didn't think I had a serious problem with alcohol/drugs

..... 1 ..... 2 ..... 3..... 4..... …….5

4 I thought I could handle it on my own 1 ..... 2 ..... 3..... 4..... …….5

5 I didn't think of myself as an alcoholic/addict at the time

..... 1 ..... 2 ..... 3..... 4..... …….5

6. My drinking/drug use wasn't causing any problems as far as I could see

..... 1 ..... 2 ..... 3..... 4..... …….5

7. I didn't think I needed any help ..... 1 ..... 2 ..... 3..... 4..... …….5

8. Drinking/drug use was a way of life for me

..... 1 ..... 2 ..... 3..... 4..... …….5

9. I liked getting drunk/getting high/being stoned

..... 1 ..... 2 ..... 3..... 4..... …….5

10. I thought drinking/using drugs had not caused much trouble or problems for me

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
	▼	▼	▼	▼	▼

..... 1 ..... 2 ..... 3..... 4..... …….5

11. I liked drinking/using drugs and I didn't want to give it up

..... 1 ..... 2 ..... 3..... 4..... …….5

12. I didn't know how I could live without drinking/using drugs

..... 1 ..... 2 ..... 3..... 4..... …….5

13. At the time, there seemed to be more good than bad about drinking/drug use for me

..... 1 ..... 2 ..... 3..... 4..... …….5

14. I thought that help was for people with worse problems than mine

..... 1 ..... 2 ..... 3..... 4..... …….5

15. I thought my problems would go away without any help

..... 1 ..... 2 ..... 3..... 4..... …….5

16. I didn't want to get help..... 1 ..... 2 ..... 3..... 4..... …….5

17. I thought my alcohol/drug problem would get better on its own

..... 1 ..... 2 ..... 3..... 4..... …….5

18. I thought I should be strong enough to handle my alcohol/drug problems on my own

..... 1 ..... 2 ..... 3..... 4..... …….5

19. I was concerned about what other people would think of me if I went for help

..... 1 ..... 2 ..... 3..... 4..... …….5

20. I was too embarrassed or ashamed ... 1 ..... 2 ..... 3..... 4..... …….5

21. My family would have been embarrassed..... 1 ..... 2..... 3..... 4 ..... …….5

22. Someone important to me did not want me to go to rehab/treatment

..... 1 ..... 2 ..... 3..... 4..... …….5

23. I was scared I would lose my friends.. 1 ..... 2 ..... 3..... 4..... …….5

24. Other people said I should not go for help

..... 1 ..... 2 ..... 3..... 4..... …….5

25. I was afraid of what others might think 1 ..... 2 ..... 3..... 4..... …….5

26. I didn't want to be told to stop drinking or using drugs

..... 1 ..... 2 ..... 3..... 4..... …….5

27. I didn't want somebody telling me what to do about my life

..... 1 ..... 2 ..... 3..... 4..... …….5

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
	▼	▼	▼	▼	▼

28. I hated being asked personal questions ..... 1 ..... 2 ..... 3 ..... 4 5

29 I was too embarrassed to discuss my alcohol/drug problem with anyone
..... 1 ..... 2 ..... 3 ..... 4 5

30. I was afraid of what kind of treatment they would give me
..... 1 ..... 2 ..... 3 ..... 4 5

31. I was afraid of what might happen in treatment
..... 1 ..... 2 ..... 3 ..... 4 5

32. I didn't like to talk in groups ..... 1 ..... 2 ..... 3 ..... 4 5

33. I was worried about the bad feelings of going through withdrawal from alcohol/drugs
..... 1 ..... 2 ..... 3 ..... 4 5

34. It seemed like too much trouble to go for help
..... 1 ..... 2 ..... 3 ..... 4 5

35. I didn't want to go to AA/NA or other self-help groups
..... 1 ..... 2 ..... 3 ..... 4 5

36. I was afraid of the people I might see there
..... 1 ..... 2 ..... 3 ..... 4 5

37. I didn't like to talk about my personal life with other people
..... 1 ..... 2 ..... 3 ..... 4 5

38. I didn't think it will do any good ..... 1 ..... 2 ..... 3 ..... 4 5

39. I was afraid that I would fail or that it wouldn't help me
..... 1 ..... 2 ..... 3 ..... 4 5

40. I didn't think anyone could help me .... 1 ..... 2 ..... 3 ..... 4 5

41. I tried getting help before and it didn't work
..... 1 ..... 2 ..... 3 ..... 4 5

42. I was afraid I would lose my job if I went for help
..... 1 ..... 2 ..... 3 ..... 4 5

43. I didn't know where to go for help ..... 1 ..... 2 ..... 3 ..... 4 5

44. I had no transport to get there ..... 1 ..... 2 ..... 3 ..... 4 5

45. I didn't know of any rehab/treatment centres where I could go for help
..... 1 ..... 2 ..... 3 ..... 4 5

46. I didn't have the money to pay for treatment/rehab
..... 1 ..... 2 ..... 3 ..... 4 5

ASK: At that time, what were the factors that made it more difficult for you to go to treatment/rehab	Strongly disagree ▼	Disagree ▼	Neutral ▼	Agree ▼	Strongly Agree ▼

47. I had no money to pay for transport to get to rehab
..... 1 ..... 2 ..... 3..... 4..... …….5
48. I had no-one to take care of my children while I was in rehab
..... 1 ..... 2 ..... 3..... 4..... …….5
49. I didn't have the time to go to rehab ... 1 ..... 2 ..... 3..... 4..... …….5
50. I couldn't get time off work to go to rehab
..... 1 ..... 2 ..... 3..... 4..... …….5
51. I had no medical aid to pay for treatment/rehab
..... 1 ..... 2 ..... 3..... 4..... …….5
52. I didn't speak English well enough to take part in treatment/rehab
..... 1 ..... 2 ..... 3..... 4..... …….5
53. My medical aid did not cover the costs of treatment/rehab
..... 1 ..... 2 ..... 3..... 4..... …….5
54. I couldn't speak my home language at treatment/rehab centres
..... 1 ..... 2 ..... 3..... 4..... …….5
55. The rehabs that were available didn't cater for my culture
..... 1 ..... 2 ..... 3..... 4..... …….5
56. I was put on a long waiting list to get into treatment/rehab
..... 1 ..... 2 ..... 3..... 4..... …….5
57. The hours of the treatment/rehab programmes were inconvenient for me
..... 1 ..... 2 ..... 3..... 4..... …….5
58. There were no treatment/rehab centres that focus on helping women
..... 1 ..... 2 ..... 3..... 4..... …….5
59. I thought that rehab centres could not deal with the problems that women face
..... 1 ..... 2 ..... 3..... 4..... …….5
60. I had to wait for a report from a social worker before I could go to rehab
..... 1 ..... 2 ..... 3..... 4..... …….5
61. The treatment/rehab centres were far away from where I live
.... 1..... 2..... 3 ..... ……4……..5

G5a. Are there any other reasons that made it difficult for you to get help for your alcohol/drug use?

YES 1

NO 2

If yes, then SPECIFY_____

G6. Please name 5 things (*in order of importance*) that helped you find and get into a substance abuse treatment/rehab programme?

1._____

2._____

3._____

4._____

5._____

Thank you for participating in this study. **END TIME:|__|__| : |__|__|**