PREVALENCE OF PERSONALITY DISORDERS AMONG SUBSTANCE ABUSERS IN DRUG REHABILITATION CENTRES IN KENYA

A DISSERTATION SUBMITTED IN PART FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF MEDICINE IN PSYCHIATRY IN THE UNIVERSITY OF NAIROBI

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DECLARATION

I declare that this dissertation entitled " prevalence of personality disorder among substance abusers in drug rehabilitation centers in Kenya" is the result of my own work and that it has not been submitted either wholly or in part to or any other university for the award of any degree or diploma.

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DEDICATION

To my loving parents, Moses and Veronica.

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ABBREVIATIONS

ASSIST: Alcohol Smoking and Substance Involvement Screening Test

DSM: Diagnostic Statistical Manual

HIV: Human Immunodeficiency Virus

ICD: International Classification of Diseases.

KNH: Kenyatta National Hospital

P.D: Personality Disorder

SCID II: Structured Clinical Interview for DSM-IV Axis II Personality Disorders

SDQ: Social Demographic Questionnaire.

SPSS: Statistical Package for Social Sciences.

STI: Sexually Transmitted Infection

U.O.N: University Of Nairobi

PDQR: Personality Diagnostic Questionnaire-Revised

MCMI: Millon Clinical Multiaxial Inventory

DEFINITION OF TERMS

Addiction: a persistent, compulsive dependence on a behaviour or substance.

Axis I Disorders: Clinical Disorders, including major mental disorders, and learning disorders.

Axis II Disorders: Personality disorders and mental retardation.

Comorbidity: The presence of any distinct clinical entity that has existed or that may occur during the clinical course of a patient who has the index disease under study.

DSM-IV-TR: A "Text Revision" of the DSM-IV, was published in 2000. The diagnostic categories and the vast majority of the specific criteria for diagnosis were unchanged. The text sections giving extra information on each diagnosis were updated, as were some of the diagnostic codes in order to maintain consistency with the ICD.

Novelty Seeking: Reflects a heritable bias in the initiation or activation of appetitive approach in response to novelty, approach to signals of reward, active avoidance of conditioned signals of punishment, and skilled escape from unconditioned punishment.

Personality: A characteristic manner of thinking, feeling, behaving and relating to others, integral to each person's sense of self, as they involve what person's value, what they do and their innate tendencies and preferences.

Personality Trait: The DSM defines personality traits as "enduring patterns of perceiving, relating to, and thinking about oneself and the environment" (i.e., other people and the world as a whole).

Personality Disorder is defined in DSM-IV-TR as an enduring pattern of inner experiences and behaviour that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time and leads to distress or impairment.

Substance Abuse: DSM-IV defines the essential features of substance abuse as follows: A maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances. These problems must occur recurrently during the same12-month period.

Substance Dependence: A syndrome manifested by a behavioural pattern in which the use of a given psychoactive drug, or class of drugs, is given a much higher priority than other behaviours that once had higher value.

ABSTRACT

Introduction: Personality disorders play a potential role in vulnerability to substance misuse and dependence. Very little information is available on the co-occurrence of different personality disorders (PDs) and drug use disorders among treatment seeking substance abusers in the Kenyan population. Numerous studies in both population and clinic based settings show a higher prevalence of personality disorders among individuals with substance use disorders than among the general population, with particular prominence of antisocial and borderline personality disorder. The high individual and social costs of drug use highlight the need to study factors related to such behaviours. Personality disorder effects can have important clinical implications. Research on the correlates of drug addiction provides insights for understanding aetiology and informs prevention and cessation programs. The present study contributes to this line of research by examining personality disorders associated with substance abuse.

Aim: The aim of the study was to establish the prevalence of personality disorders among substance abusers and to identify factors associated with the presence of personality disorders.

Study design: A cross-sectional descriptive study.

Study site: The study was conducted in the following drug rehabilitation centres in Kenya: Mathari Hospital Rehabilitation Centre, Asumbi Treatment Centres, Red Hill Rehabilitation Centre, Script Resource Centre, Blessed Talbot Rehabilitation centre, Maisha Rehabilitation Centre.'

Method: A sample of 207 patients admitted in drug rehabilitation centres in Kenya was assessed within a period of three months. Informed consent was sought from the patients. Individual screening for inclusion criteria followed and recruitment was done for patients who met the inclusion criteria. A socio demographic questionnaire was administered to collect socio demographic information on the subjects recruited in the study. SCID II was used to assess for axis II diagnosis of personality disorder. The ASSIST instrument was then administered to assess for the specific substances used in the study population. Descriptive and inferential analysis was done using the Statistical Package for Social Sciences (SPSS) version 12; the results are presented in narratives, tables and charts.

Results: Out of 207 patients successfully enrolled in the study 115 (55.7%) of them were found to have at least one personality disorder. Of these 16.9% were found to have more than one personality disorder. Majority of the patients with a personality disorder had a Cluster C personality disorder (37.7%), followed by Cluster B (19.8%) and lastly Cluster A (12.8%). The most prevalent personality disorder found in the participants was Avoidant personality disorder (21.3%), followed by Obsessive compulsive pd (14%), Paranoid pd (10%), Antisocial pd(8.7%), Passive Aggressive pd (7.3%),Narcissistic pd (6.3%), Borderline pd (6.3%), Schizotypal pd (1.9%), Dependent pd (1.5%), Schizoid pd (1.5%), Histrionic pd (0.97%), and Depressive pd (0.48%). Alcohol, tobacco and cannabis were found to be the most abused substances. 95.2% of the participants reported alcohol use, 81.6% reported tobacco use, 55.6% reported cannabis use and 47.8% amphetamine use. Hallucinogens were the least used substance 2.9%. Analysis of the ages of the substance abuser showed the participants with personality disorders were significantly younger than those without personality disorders (p= 0.0059). Substance abusers with personality disorders were less also less likely to be married (p=0.04) and employed (p=0.02). No significant association to gender, level of education and religion was found. Cluster B personality disorders occurred more frequently in participants who used cannabis compared to those who did not use cannabis (76% versus 24%, p = 0.003). Similarly this cluster of personality disorders were more common in participant who used amphetamine like substances compared to those who did not use amphetamine (66% versus 34%, p = 0.014).

Conclusion and Recommendation: The prevalence of personality disorders is high among substance abusers admitted in drug rehabilitation centres around Kenya, the most common being avoidant personality disorder followed by obsessive compulsive personality disorder. Accurate identification of patients with personality disorder is valuable for both clinical and research purposes. Further research in community samples is required to clarify the relationship between substance abuse and personality disorder.

Personality disorders refer to personality attributes which are sufficiently problematic to cause distinct impairments in areas such as social functioning or personal relationships. The key features of personality disorders are that the personality pattern is formed by adolescence or early adult years, is characteristic across different situations, and is maladaptive.

The history and validity of the concept of personality disorders has been the subject of authoritative reviews. It has long been recognized that there are individuals who have problems which are broadly psychiatric in nature but which appear to represent extensions of the usual range of character variations, without other superimposed disturbances. One distinction has been the extent to which individuals are responsible for their own actions, which is regarded as greater in those with personality disorder than with "formal" mental illness.[1]

Researchers may suspect personality disorders could affect, for instance the outcome of drug use, as it demonstrably affects the response to treatment of a range of other problems such as anxiety and depression, compulsive disorders and alcohol dependence.[2]

1.1 Clusters of Personality Disorders

Personality disorder subtypes classified in DSM-IV are: schizotypal, schizoid, paranoid, narcissistic, borderline, antisocial, histrionic, obsessive compulsive, dependent and avoidant. These personality disorders are classified into 3 clusters according to the behaviours exhibited by patients: Cluster A, B and C.[3]

Cluster A includes personality disorders in which people exhibit odd, eccentric and aloof behaviour. This group is characterised by a general distrust of others, misinterpretation of other's actions, odd or idiosyncratic beliefs and a tendency towards social isolation. The initial presentation of Cluster A personality disorders: the underlying mistrust and unusual ideas usually become apparent over time. Only rarely do people with Cluster A disorders self present for treatment. [3] The cluster A personalities are paranoid, schizoid and schizotypal personality disorders.[3]

Cluster B personalities are characterized by dramatic, erratic and impulsive behaviour. The personality disorders classified here include antisocial, borderline, histrionic and narcissistic disorders. Such people are characterised as labile, unpredictable, unlikable or impulsive.

The initial clinical presentation of the Cluster B patient is typically crisis-related and chaotic. It often involves severe symptoms, substance abuse, and conflicts with family members, employers or the health care system. Such people have difficulty maintaining interpersonal relationships (e.g. with health care providers) and often have a history of discharge against medical advice, doctor shopping or following recommended treatment. Awareness of Cluster B personality disorder may help the practitioner to anticipate such problems and to undertake treatment in a more sophisticated way[3].

Cluster C personality types exhibit anxious and fearful behaviour. They include avoidant, dependent and obsessive compulsive personality disorders. Patients are often anxious, timid, perfectionist, and conflict avoidant. Presentation is frequently triggered by depression, or somatic complaints. Although sometimes initially reluctant to engage in medical or psychiatric treatment, they may become highly attached because they have few other important relationships and have difficulty disengaging at the appropriate time.[3]

1.2   Background

Across studies involving different samples, settings and method of assessment, more than half of the treated substance abusers have at least one personality disorder.[4] Estimates of the prevalence of personality disorder within clinical settings is typically above 50%.[5] Although the comorbid presence of a personality disorder is likely to have an important impact on the course and treatment of an Axis I disorder the prevalence of personality disorder is generally underestimated in clinical practice due in part to the failure to provide systematic or comprehensive assessments of personality disorder symptomatology.[6]

One of the mistaken assumptions or expectations of Axis II is that personality disorders are untreatable. In fact, maladaptive personality traits are often the focus of clinical attention. Personality disorders are among the more difficult of mental disorders to treat as they involve entrenched behavior patterns, some of which will be integral to a patient's self-image. Nevertheless, there is compelling empirical support to indicate that meaningful response to psychosocial and pharmacologic treatment does occur.[6]

Treatment of a personality disorder is unlikely to result in the development of a fully healthy or ideal personality structure, but clinically and socially meaningful change to personality structure and functioning does occur. In fact, given the considerable social, occupational, medical and other costs that are engendered by such personality disorders as the antisocial and borderline, even marginal reductions in symptomatology can represent quite significant and meaningful public health care, social and clinical benefits in patients with comorbid substance abuse disorder.[6]

The association of a variety of specific substance use disorders with antisocial personality disorders has been observed in clinical and forensic settings [7,8] and in the general population[9,10].In the Epidemiologic Catchment Areas Study[10], alcohol use disorders and all other DSM-III non alcohol substance use disorders were more strongly associated with antisocial personality than with any axis I disorders examined in the survey. Before the developmental of standardized, semi structured interviews for all axis II disorders, instruments were available only for antisocial personality disorders. Thus a perception was created that substance use disorder and personality disorder co morbidity was limited to antisocial personality.[11] However, since impulsive tendencies may underlie other personality disorders, it is reasonable to expect that a broader perspective on diagnosis of personality disorder might uncover a more extensive pattern on co morbidity. [11,12]

In a recent literature review, Verheul [5] compared the prevalence rates typically found in the general population and psychiatric samples with those reported in studies of substance users. Estimates of the overall Axis II prevalence range from 10.0 to 14.8% in normal subjects (median 13.5%) from 45.2 to 80% in psychiatric patients (median 60.4%), and from 34.8 to 73.0% in treated addicts(median 56.5%) were found. Thus, personality disorders are comparably prevalent among psychiatric and addicted patients, and in both groups personality disorders are about four times more prevalent than among individuals from the general population. Because the latter conclusion has also been found to be true among non patient substance abusers the observed co morbidity cannot be attributed to referral bias.[5]

An important ongoing controversy concern the question whether and to what extent Axis II diagnoses in alcoholics and drug addicts are substance-related artefacts. Reflecting transient conditions, secondary to the addictive problems rather than true personality disorders with

early onset and an enduring course independent of Axis I symptoms. However, several studies have refuted potential artefacts in Axis II diagnoses. [5]

A study by Skodol et al [13] found the prevalence rate of personality disorder to be similar among those with a current diagnosis of substance use disorder compared with those with a past diagnosis of substance disorder. In another study, Verheul et al [14] found that remission of the substance use disorder is not significantly associated with remission of the personality pathology, suggesting that the two conditions follow an independent course.

Substance use disorder co occur with personality disorders at rates far exceeding those predicted by chance alone, suggesting that addiction and personality are somehow causally linked in co morbid individuals.[5]

1.3   Statement of the Problem

The total impact of personality disorders on the individual, family, and society is substantial. Ruegg and Francis[15] nicely summarized the impact: PDs are associated with crime, substance abuse, disability, increased need for medical care, suicide attempts, self-injurious behavior, assaults, delayed recovery from Axis I and medical illness, institutionalization, underachievement, underemployment, family disruption, child abuse and neglect, homelessness, illegitimacy, poverty, STDs, misdiagnosis and mistreatment of medical and psychiatric disorder, malpractice suits, medical and judicial recidivism, dissatisfaction with and disruption of psychiatric treatment settings, and dependency on public support. [15]

As economic conditions worsen and the trend toward family breakdown continues, we can predict an increase in the incidence of personality disorder. This development underscores the urgency of developing the science of personality, obtaining epidemiological findings concerning the prevalence, developing clear theoretical models, and effective treatment interventions for this under served population[16]. According to P. F. Kernberg et al. "Personality disorders historically have received less attention from clinicians and researchers than other psychiatric disorders such as depression and schizophrenia" [17]

Regardless of the controversy, using the current dominant diagnostic system of classification (DSM), there is increasing empirical evidence of the likelihood that a personality disorder diagnosis suggests that another clinical disorder will also be present and that it will likely be

the reason for treatment. As a broad diagnostic group, the Axis II personality disorders are the most common co-occurring disorders in treated substance abusers. [18]

Reviews of western studies of the co-occurrence of personality disorders and substance abuse disorders provide estimates of prevalence of any personality disorder diagnosis range from 34% to 100%, and for antisocial personality disorder alone, estimates range from 7% to 55%. [1]Median prevalence rates of personality disorder among patients with alcohol and substance use disorders in prospective studies including more than 100 subjects was found to be at 56.5%.[19]

In Kenya a study done on personality disorders focused on its prevalence among patients admitted in a psychiatric hospital with axis I disorder diagnosis, among the patients with substance use disorder 66% were found to have a co morbid personality disorder. [20]No subsequent study has been done since, that focuses specifically on patients with substance use disorders in the drug rehabilitation facilities within our country.

1.4 Justification for Study

Despite substantial evidence clearly showing that personality and personality pathology are involved in the aetiology and course of substance use disorders, no local studies have been carried out to establish the prevalence of personality disorders among substance abusers in rehabilitation centres. Hence personality disorders are commonly overlooked co morbidities in the management of patients with substance use disorder. Diagnosing additional problems, such as personality disorders, is important in planning and implementing treatment for patients in drug rehabilitation centres, and is also important in evaluating treatment outcome.

This study will provide local data on the prevalence of personality disorders among treatment seeking substance abusers and offer further information to an earlier study on personality disorders in a Kenyan psychiatric hospital.[20] The information will also aid in sensitizing clinicians on the need for diagnosing and managing comorbid personality disorders among substance abusers.

CHAPTER 2
LITERATURE REVIEW

2.1   Overview

In a recent review by Verheul et al [5]it was suggested that at least three different causal or developmental pathways to addiction can be distinguished in which personality factors are likely to be an important aetiological factor.

These pathways were defined as:

1. The behavioural disinhibition pathway
2. The stress reduction pathway
3. The reward sensitivity pathway

2.1.1 The Behavioural Disinhibition Pathway
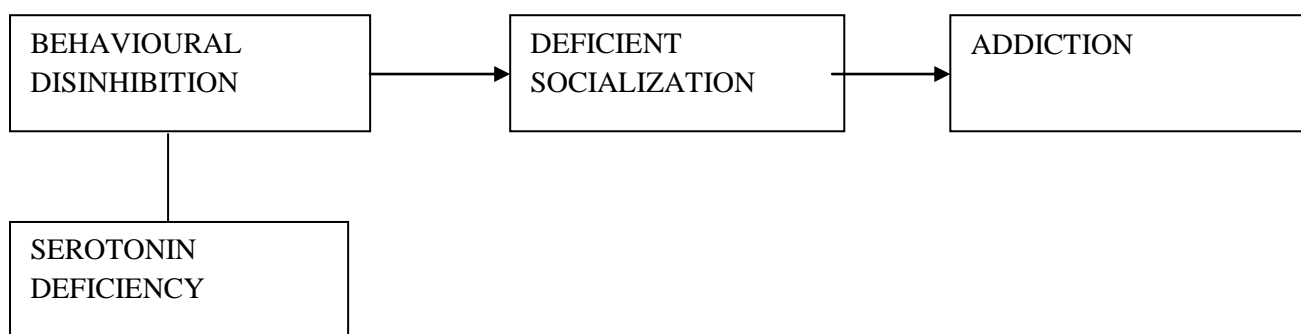
Figure 1. The Behavioural Disinhibition Pathway

The behavioural disinhibition pathway to addiction predicts that individuals scoring high on traits such as anti sociability and impulsiveness, and low on constraint and harm avoidance have lower threshold to deviant behaviours such as alcohol and drug abuse.

High relative co-morbidity is observed between substance use disorders and Axis I and Axis II disorders from the impulse control spectrum. This was evidenced by a study done by Zimmerman M and his colleagues[21] who studied personality disorder diagnoses in a non patient sample; they recruited a large sample from the general population and found that those with a substance use disorder were 17.2 times more likely to have a co-morbid antisocial personality disorder than those without.

2.1.2 Stress Reactivity Pathway

```
         ┌──────────────────────┐
         │ Stressed life events │
         └──────────┬───────────┘
                    │
                    ▼
┌──────────────────┐   ┌──────────────────┐   ┌──────────────────┐
│ STRESS REACTIVITY│──▶│ ANXIETY AND      │──▶│ SUBSTANCE USE AS │
│                  │   │ MOOD INSTABILITY │   │ SELF-MEDICATION  │
└────────┬─────────┘   └──────────────────┘   └──────────────────┘
         │
┌────────┴──────────────┐
│ GABAergic glutaminergic│
│ dysregulation          │
└───────────────────────┘
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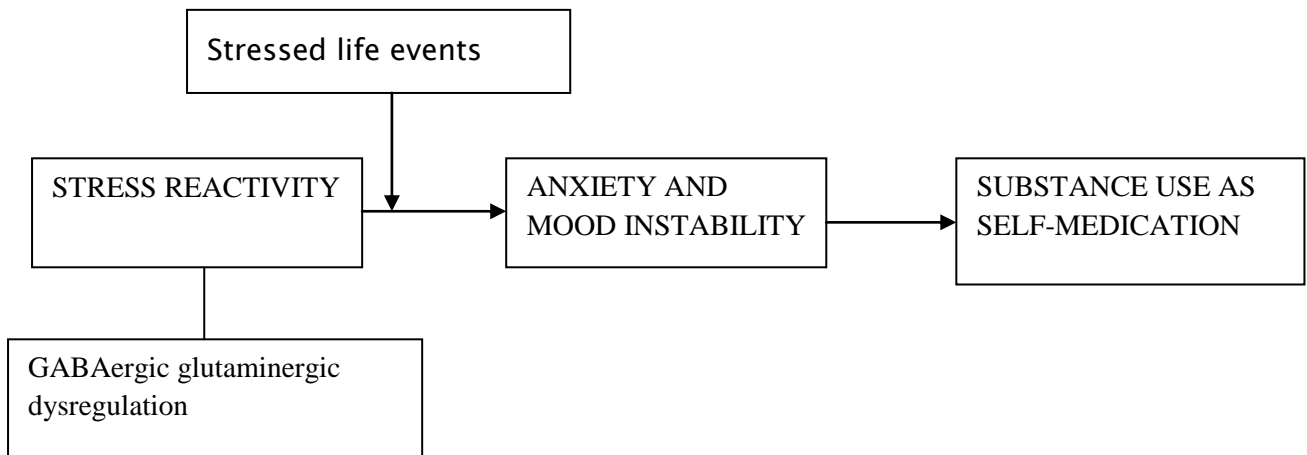
Figure 2.The Stress Reduction Pathway

The stress reduction pathway to addiction predicts that individuals scoring high on traits such as stress reactivity, anxiety sensitivity, and neuroticism are vulnerable to stressful life events. These individuals typically respond to stress with anxiety and mood instability that, in turn, can become a motive for substance use as self medication. Retrospective accounts of the order of onset have shown that anxiety disorders precede the substance use disorder in large portions of co-morbid subjects.[22]

2.1.3 Reward Sensitivity Pathway

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         ┌──────────────────────┐
         │ Excessive substance use│
         └──────────┬───────────┘
                    │
                    ▼
┌──────────────────┐   ┌──────────────────┐   ┌──────────────────┐
│ REWARD           │──▶│ Sensitization    │──▶│ Addiction        │
│ SENSITIVITY      │   │ processes        │   │                  │
└────────┬─────────┘   └──────────────────┘   └──────────────────┘
         │
┌────────┴──────────────┐
│ Dopaminergic/opioidergic│
│ hyperreactivity         │
└───────────────────────┘
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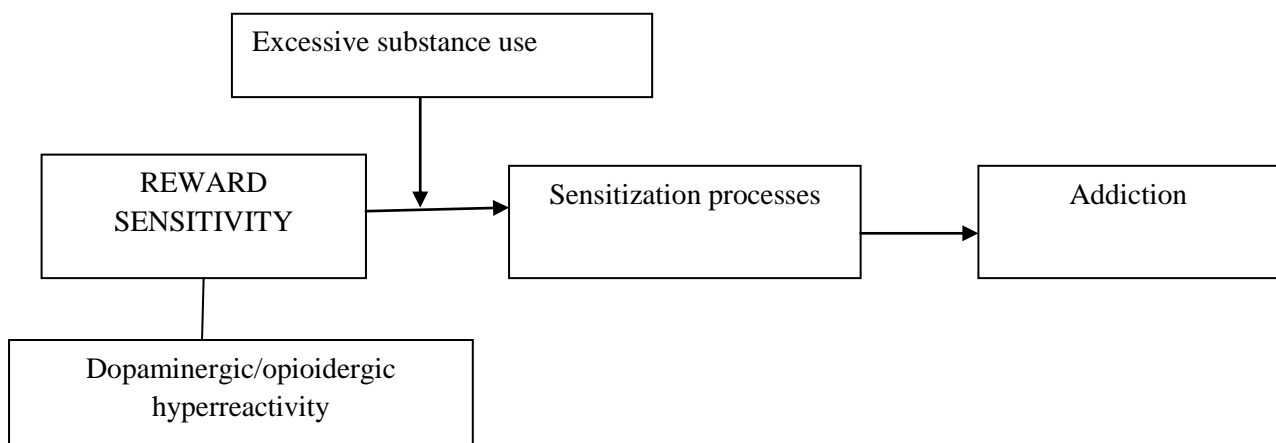
Figure 3. The Reward Sensitivity Pathway

The reward sensitivity pathway predicts that individuals scoring high on traits such as novelty-seeking, reward-seeking, extraversion and gregariousness will be motivated to substance intake for its positive reinforcing properties.

Consistent with this hypothesis, some longitudinal studies have shown that novelty-seeking as a temperamental trait in childhood predicts later substance use and related problems .[23.24]

A study by Morgenstern et al [25] on co morbidity of alcoholism and personality disorders in a clinical population furthermore suggests that students' scores of extraversion, at least among those without a family history of alcoholism, predicts alcohol dependence at age 30.

The above three respective pathways are likely to differ with respect to their relevance across different psychoactive substances.

Pathway	Axis II disorders	Substances
Behavioural disinhibition pathway	Antisocial, borderline	Cocaine, amphetamines
Stress reduction pathway	Avoidant, dependent, Schizotypal, borderline	Alcohol, heroin, benzodiazepines
Reward sensitivity pathway	Histrionic, narcissistic	Most substances

Table 1: Co-morbidity of personality disorders and substance use disorders accounted for by distinct causal or developmental pathways to addiction. *Source: Verheul R. Co morbidity of personality disorders in individuals with substance use disorders. European Psychiatry 2001:16: 274-82.*

A study by Mc Gue et al [26] on personality and substance use disorders reported alcoholism to be primarily associated with negative emotionality but not low constraint, whereas other drug use disorders showed the reversed pattern.

A recent study on personality factors and drugs of choice in female addicts by Gerdner et al [27] reported a higher association of alcoholics and benzodiazepine addicts with cluster C personality disorder (37.5), Amphetamine addicts had a greater association with Cluster B personality disorder (50.0).

2.2   Epidemiology

2.2.1 Regional Studies

A local Kenyan study by Thuo J.M[20] investigated prevalence of personality disorder among in patients at Mathari Hospital with Axis I diagnosis. He found a prevalence rate of 20.3% with majority of these patients having a cluster B personality disorder (86.6%). Among those with personality disorders, 66.7% had a diagnosis of substances abuse or dependence. The patients with a mood disorder and a comorbid personality disorder were 46.7%.

Another local study by Karanja W.M[28] investigated prevalence of Axis I diagnosis among substance abusers admitted in drug rehabilitation centres, she found psychiatric co morbidity prevalence rate of 56% with depression being the commonest (20.1%) followed by anxiety disorders (19.7%).

A study in South Africa by Suliman et al[29] on personality disorders and their Axis I correlates found the prevalence rate estimate for any personality disorder in the community sample to be 6.8%. The prevalence of a personality disorder with any substance use disorder was found to be at 18.4% with cluster A and B personality disorder most commonly co-occurring with substance disorders (16.7% and 49.4% respectively)

2.2.2 The Rest of the World

A study in USA by Grant et al [30] on a general population sample, found that the most prevalent PD in the general population was obsessive-compulsive PD (7.9%), followed by paranoid PD(4.4%), antisocial PD (3.6%), schizoid PD (3.1%), avoidant PD (2.4%), histrionic PD(1.8%), and dependent PD(0.5%). 28.6% and 47.7% of respondents with a 12-month alcohol use disorder and drug use disorder, respectively, had at least 1 PD. The prevalence of antisocial PD (12.3%), obsessive-compulsive PD (12.1%), and paranoid PD (10.2%) were the highest among respondents with an alcohol use disorder. These also were the most prevalent PDs among respondents with any drug use disorder but the rates were much higher.

Another American study by Nace et al[31] on Axis II co-morbidity among substance abusers in an inpatient substance abuse program found 57% of the admitted patients had at least one personality disorder. Among these borderline personality disorder had the highest prevalence

of 30% followed by paranoid personality disorder (12%), histrionic personality disorder (10%) and antisocial personality disorder at (5%).

There were no significant differences in gender between the groups with and without personality disorders. The personality disorder group was significantly younger; mean 31 yrs than the group without personality disorders mean; 38 years. The subjects with personality disorders had significantly less education than the group without personality disorders. The personality disorder group was less likely to be married 68% than the group without personality disorders 51%.

A study in Spain by Echeburia et al[32] on co-morbidity of alcohol dependence and personality disorders, 30 alcohol dependent patients attending an outpatient clinic were compared with 30 psychiatric patients with non addictive disorders and 31 subjects from the general population. The study found that 40% of alcohol dependent patients met the DSMIV-TR diagnostic criteria for a personality disorder, compared with 16.6% of the non addict patients and 6.4% of the normative control. In the same study dependent personality disorders were most prevalent (13.3%) followed by paranoid and obsessive-compulsive personality disorders (10%).

Skodol et al [33] did a study in two treatment settings in New York State and found a prevalence rate of 46% of at least one personality disorder. The most common personality disorders were from cluster B (borderline 28.5 %) and cluster C (avoidant 21.5%)

A clinic based sample study in Greece by Kokkevi et al [34]found a prevalence of Axis II personality disorders of 59.5%. Cluster B was diagnosed in almost half of the subjects (48.6%), antisocial P.D being the most prevalent (33.5%) type of personality disorder. Mean age of subjects was 28 years and 82.3% male subjects. Heroin was the main substance of abuse (89.8%)

Pettinati et al[35] studied prevalence of personality disorders among cocaine and alcohol dependent patients in a New Jersey treatment facility. The study showed a higher prevalence of personality disorders among the cocaine users than among the alcohol dependent (55% vs. 35%). The predominant personality disorder among cocaine user was antisocial (21.8%), while among alcohol users the disorder most predominant was avoidant personality disorder.

A study in Spain by Haro et al[36] found the prevalence rate of personality disorders among opiate abusers admitted in treatment facilities to be 58.1%. Borderline personality disorder was the most prevalent (23%).

Another study in Spain by Gutierrez et al[37] among drug dependent patients admitted to a treatment facility found 60.8% of the subjects had a personality disorder according to SCID II interview, with a high frequency of antisocial (39.2%) and borderline (37.8%) disorders. A diagnosis within cluster B was made in 55.4% of subjects.

A study in Norway by Kantojarvi et al[38] in a community sample among patients with mood, anxiety and substance use disorder found a prevalence of 54% having at least one personality disorder . Among the substance abusers a prevalence rate of 18% had co morbid personality disorders. Cluster C personality disorders were predominant in all three Axis I disorders.

A study by Montalvo et al[39] in Spain among treatment seeking substance abusers found personality disorders among 22% of the participants. The most prevalent personality disorder were the avoidant personality disorder (10%) followed by borderline (6%).

Saxon et al [40] in the USA studied personality disorders among outpatient cocaine and opioid addicts using the MCMI tool. He found a prevalence rate of 22% with at least one personality disorder. No significant difference existed in prevalence rate among the cocaine and opioid addicts.

A study by Brandell et al[41] in Norway among alcoholics using SCID II tool, found a prevalence rate of 58% with at least one personality disorder. Sex was not a statistically significant parameter among these patients. The most frequent diagnoses were borderline and avoidant personality disorder at 15% each, followed by dependent and paranoid personality disorder at 13% each.

A study by Uzun et al[42] in Turkey focused on substance use disorders in men with antisocial personality disorder. In this study, alcohol, Cannabis and inhalant use disorders were the most frequent among substance use, 75%, 67.4%, and 35.6% respectively. The average age of first alcohol use was 15yrs and the average age of first other substance use was 14.9 yrs.

A different study by Sonne et al[43] in the USA using the SCID II tool among cocaine dependent individuals found a prevalence rate of 51% with at least one personality disorder. No significant differences in age, gender, race, marital status or employment status among the

group was found. The most common diagnoses identified were the borderline PD (40%), paranoid PD (40%), antisocial PD (24.4%) and narcissistic PD (22.2%).

A study by Vanhorn et al[44] in the USA on 334 substance abusers in a dependency unit using SCID II found 71.7% of the sample with at least one personality disorder. The most prevalent such disorder was borderline PD diagnosed in 18.6% of the sample followed by antisocial PD (14.5%), obsessive-compulsive PD (13.9%) and avoidant PD (13%). Cluster C disorders were the most prevalent in 49% of the sample, followed by Cluster B at 35% and finally Cluster C at 9%. Men and women were equally likely to be diagnosed as having a personality disorder as compared to subjects without personality disorders. Subjects with Axis II diagnoses were younger mean age (39.2yrs). Subjects with Axis II were also less likely to be married and to have more than secondary education.

A study by Verheul et al[45] in Denmark among 187 alcoholics in a treatment setting using PDQR tool found 45.5% met criteria for at least one specific personality disorder. 25% had at least one cluster A personality disorder, 31.3% had at least one cluster B disorder and 38.4 % had at least one cluster C disorder.

Another study by Powell et al[46] in the UK among 104 inpatient alcoholics in a treatment facility sought to find personality disorder prevalence using SCID II tool. 24% had features of at least 1 personality disorder. Borderline was the commonest overall at 12%, with a higher prevalence among females than males. Antisocial PD was next commonest and restricted to males. Patients with personality disorders were on average younger than the other patients, less likely to be married, and more likely to be divorced, to live alone and to be unemployed.

CHAPTER THREE
RESEARCH SCOPE

3.1   Research Questions

The following research questions arise:-

1. What is the prevalence of personality disorders among substance abusers admitted in drug rehabilitation centres in Kenya?

2. Are there any socio demographic correlates of personality disorders in substance abusers?

3. Is there a pattern of substance use among substance abusers with co morbid personality disorders?

3.2   Aim

To establish the prevalence of personality disorders in patients with substance use disorder at drug rehabilitation centres in Kenya.

3.3   Specific Objectives

1   To determine the prevalence of personality disorders among substance abusers admitted in drug rehabilitation centres in Kenya.

2   To determine the socio-demographic characteristics of substance abusers with co-morbid personality disorders.

3   To determine the pattern of substance use among substance abusers with co morbid personality disorders.

3.4   Null Hypothesis

There is no co-morbid personality disorder among patients admitted in drug rehabilitation centres in Kenya.

3.5   Alternative Hypothesis

There is co-morbid personality disorder among patients admitted in drug rehabilitation centres in Kenya.

CHAPTER FOUR
METHODOLOGY

4.1   Study design

The study was a descriptive cross sectional study; describing the prevalence and pattern of personality disorders among in-patient substance abusers in drug rehabilitation centres in Kenya.

4.2   Study Area

Participating institutions included:

1. Mathari Hospital Rehabilitation Centre.

2. Asumbi Treatment Centre, Karen, Nairobi.

3. Asumbi Treatment Centre, Ridgeway's, Nairobi.

4. Asumbi Treatment Centre, Homabay, Nyanza.

5. Raphaelites (Red Hill), Limuru.

6. Script resource centre, Kiserian.

7. Blessed Talbot Recovery Centre

8. Maisha Rehabilitation Centre.

In these centres the therapeutic community is based on Alcoholic Anonymous and Narcortic Anonymous programme and a well designed and implemented after-care support through a fellowship for alcoholics and addicts. Treatment for other mental illnesses is not provided in these institutions but where necessary, a psychiatrist's review is sought or patients referred accordingly.

Drug Rehabilitation Unit, Mathari Hospital, Kenya

The only public rehab established in 2003 in order to provide drug abuse treatment and rehabilitation services with the aim to become a centre of excellence for treatment, training and research. The main objectives of the centre are provision of in- and out-patient treatment

to drug users using a multidisciplinary approach.. Counselling/psychotherapy, occupational therapy, recreational activities and guidance are provided. The centre also makes use of outreach services through community nursing department. Trained psychiatry community nurses refer patients in need of rehabilitation to the facility from the different outreach clinics.

Asumbi Treatment Center is one of the oldest drug rehabilitation centers in East Africa having been started way back in 1978 in Asumbi- Homabay under the Catholic Diocese. Asumbi currently has three centers; Asumbi Homabay, Asumbi Karen and Asumbi Ridgeways. The Asumbi treatment centre Homabay is located inside Asumbi Teachers College approximately 24kms from Kisii town. The Karen centre is located in Nairobi along Langata road, about 800metres from the Karen shopping centre while that in Ridgeways is located 2kms off Kiambu road. The centers are all residential drug free treatment facilities focusing on spiritual and personal growth through group and individual counseling.

Red Hill is located in Limuru, about 35 km from Nairobi, off Limuru road. It was established in April 2001 and has a capacity of 32 patients admitting both male and females. It offers drug free residential treatment for a period of between 3 to 6 months depending on the substance of abuse.

Script Resource center (formerly St. Martins) is a residential facility in Kiserian, Ngong. It also embraces a spiritual approach in the counseling. It has a capacity to accommodate 14 patients, all male.

Blessed Talbot Recovery Center is located in Ndenderu, 2km from Kiambu town. It has a capacity of 30 inpatients and admits both male and female. It offers drug free rehabilitation services and for some recovering addicts also provides a half way house services.

Maisha Rehabilitation Center is located in Ongata Rongai town. It has a capacity of 30 inpatients. The center offers in patient rehabilitation services to substance abusers.

The admission period in the rehabilitation centers ranges between 3-6 months depending on the substance of abuse. In most facilities, treatment of alcohol dependence is 3 months while for other drugs like cannabis and heroin is 6 months.

4.3   Study Population

The study population consisted of in patients at the participating drug rehabilitation centers that fulfilled the inclusion criteria.

4.3.1   Inclusion Criteria

1. Those above 18 years of age.
2. Those who have given consent.

4.3.2   Exclusion Criteria

1. Those less than 18 years of age.
2. Those who decline to give consent.
3. Those admitted for non drug rehabilitation.

4.4   Sample Size

The sample size was calculated using the Fisher formula:

$$N=\frac{Z^2 pq}{d^2}$$

Where n is the sample size

Z is the standard normal deviation usually set at 1.96 which corresponds to 95% confidence interval.

p is the hypothesized prevalence level 22% from similar prevalence study (Montalvo et al 2006)[39]

Q is 1-p

D is the degree of precision set at 0.05(5%)

Therefore substituting the values as follows;

$$N=\frac{1.96^2 \text{ x }.22 \text{ x}.78}{0.05^2}$$

$$=263$$

16

The target population of substance abusers in the drug rehabilitation centers in the study is less than 10,000 implying that the sample size will be smaller. The final sample size (n_f) was estimated using the following formulae proposed by Mugenda (1999).

$$n_f = \frac{n}{1 + (\frac{n}{N})}$$

Where: $n_{f\ =}$ the desired sample size when the population size is less than 10,000

n = the desired sample size when the population size is more than 10,000

N = the estimate of population size

$$n_f = \frac{263}{1 + (\frac{263}{990})}$$

nf = 207 patients

4.5 Sampling

The sampling method used to select the rehabilitation centres was purposive. Participating rehabilitation centres were selected from well established and registered centres in the country. Since the total number of recovering substance abusers in the rehabilitation centres is estimated to range from 200- 300 patients during the study period, all in-patients who met the inclusion criteria were enrolled to the study.

4.6 Study Instruments

I.   Social Demographic Questionnaire (SDQ).

This was a researcher designed and researcher administered questionnaire. It collected data on age, gender, marital status, level of education, occupation, religion, previous admissions in rehabilitation centres and other socio demographic data.

II.   **Structured Clinical Interview for DSM-IV Axis-II Personality Disorders (SCID II).**

SCID II is a user-friendly instrument that helps to make standardized, reliable and accurate diagnoses of the 10 DSM-IV Axis II personality disorders as well as depressive personality disorder, passive-aggressive personality disorder, and

personality disorder not otherwise specified. This instrument begins with a brief overview that characterises the subject's typical behaviour and relationships and elicits information about the subject's capacity for self-reflection. The SCID-II is preceded by the administration of the personality questionnaire and this allows the interviewer to follow up on the items endorsed on the screen. The researcher was trained by Dr. Wangari Kuria on how to implement this tool.

III. **Alcohol, smoking and substance involvement screening test (ASSIST).**

This is a tool developed by the World Health Organization (WHO) in 1997 to detect and manage substance use and related problems in primary and general medical care settings.

The ASSIST provides information on the substances which subjects have ever used in their lifetime, the substances they have used in the past 3 months, problems related to substance use, the risk of current or future harm, dependence and injecting drug use.

4.7   Data Analysis and Presentation

Descriptive and inferential analysis was done using the statistical package for social sciences (SPSS) version 12. The result is presented in narratives, tables and charts.

4.8   Study Implementation

The researcher set 5 days in a week (Monday to Friday) to interview the patients over a period of 7wks. About 6 patients were interviewed per day and about 60minutes was spent in each interview. The total number anticipated for the stated period of the study was 207 patients which is the total number of the estimated sample size. Upon arrival at the rehabilitation center, permission to conduct the study was obtained from the rehab administrator and when granted the patients were sorted out for inclusion criteria. Those who did not meet the criteria were thanked and excluded from the study. For those who were eligible and willing to participate in the study, they were explained about the study and an informed consent was signed. Study instruments were administered in the order of socio demographic questionnaire, ASSIST and lastly the SCID II. Serial numbers were assigned instead of names. At the end of the interview the patient was thanked and the interview terminated.

4.9   Ethical Considerations

Approval to carry out the study was obtained from Department of Psychiatry, University of Nairobi and clearance obtained from Ethics and research committee at KNH. Permission to carry out research was obtained from the administrators of the various drug rehabilitation centers.

A written informed consent was sought from participants after having explained the purpose of the study in detail.

Participants were informed that participation in the study would be voluntary and information collected during the study would be used only for purposes of the study. No material gain was expected from the study.

Confidentiality was assured; serial numbers instead of names were assigned to participants to ensure anonymity.

No invasive procedures were used and participants were not posed any risk.

CHAPTER FIVE

RESULTS

Introduction

The findings of this analysis are presented by study objectives and organized into the following sections:

i. Socio-demographic characteristics of participants

ii. Prevalence of personality disorders among substance abusers

iii. Socio-demographic correlates of personality disorders in substance abusers

iv. Types of substances used and problems associated with substance use (ASSIST tool)

v. Patterns of substance use and co-morbid personality disorders

5.1 Socio-demographic characteristics of participants

Age of substance abusers

The average age of the 207 substance abusers admitted in the rehabilitation centers and recruited in this study was 33.4 (SD 9.7). The age range was between 18 to 60 years. Majority of the participants were aged between 18 and 34 years of age with 44.2% and 17.5% of all participants being in the age groups 25 to 34 years and 18 to 24 years, respectively.

Gender of substance abusers

One hundred and ninety (91.8%) out of the 207 study participants were male. The ratio of male to female in the study was approximately 11: 1.

Education level

Only one participant (0.5%) reported not having attended any formal education. Primary level education was attained by 3.9% of the participants while 24.6% had attained secondary level education. Lastly, 71% of all participants reported having attained tertiary level education.

Marital status

 Almost half (49.3%) of all participants in this study were single. 38.7% of the participants recruited in the study were married while (9.2%) were separated, (1.9%) widowed and (0.97%) divorced.

Religion

More than one-half (52.7%) of all participants professed Protestant religious belief, and 35.8% of participants were Catholics. Muslim comprised 3.9% of all participants. The remaining 7.7% of the sample reported that they practiced "other" religious beliefs including traditional religions.

Occupation

Approximately one-third (37.2%) of the participants were engaged in formal employment. This group was followed by participants involved in business who formed 19.8% of the sample. Students and unemployed participants comprised 14.5% and 14% of the sample, respectively.

Table 2: Social and demographic characteristics of substance abusers in drug rehabilitation centers in Kenya

Social demographic characteristic	Frequency (n)	Percent
Age in years		
18-24	36	17.5
25-34	92	44.2
35-44	46	22.3
45-54	27	13.1
55+	6	2.9
Sex		
Male	190	91.8
Female	17	8.2
Level of education		
None	1	0.5
Primary	8	3.9
Secondary	51	24.6
Tertiary	147	71.0
Marital status		
Single	102	49.3
Married	80	38.7
Separated	19	9.2
Widowed	4	1.9
Divorced	2	0.97
Religion		
Protestant	109	52.7
Catholic	74	35.8
Muslim	8	3.9
Other	16	7.7
Occupation		
Formal employment	77	37.2
Business	41	19.8
Student	30	14.5
Unemployed	29	14
Informal	23	11.1
Multiple	7	3.4
Total	207	100

5.2   Prevalence of personality disorders among substance abusers

Overall prevalence of personality disorders

The overall prevalence of personality disorders among substance abusers admitted in drug rehabilitation centers in Kenya with at least one personality disorder was 55.7% (115 out of 207). Ninety-two (44.4%) patients did not have any diagnosis of a personality disorder, 80 (38.7%) patients had a single personality disorder and 35 (16.9%) had more than one personality disorder.

Prevalence of specific personality disorders

Table 3 below shows the frequency of diagnosis of specific personality disorders among substance abusers admitted in drug rehabilitation centers in Kenya. The most commonly diagnosed type of personality disorders was avoidant personality disorder which occurred among 44 (21.3%) of the substance abusers, followed by obsessive compulsive personality disorder (14%, n = 29) and paranoid personality disorder in 10.1% of substance abusers. Antisocial and passive personality disorders also occurred frequently with the diagnoses being made in 8.7% and 7.3% respectively, of all patients undergoing drug rehabilitation during this study.

As shown in Table 3, the following personality disorders were infrequently diagnosed: schizotypal (1.9%), dependent (1.5%), schizoid (1.5%), histrionic (0.97%) and depressive personality disorder (0.48%).

Table 3: Prevalence of specific personality disorders found among substance abusers admitted to drug rehabilitation centers in Kenya

Personality disorder	Frequency (n)	Percent
Avoidant	44	21.3
Obsessive	29	14.0
Paranoid	21	10.1
Antisocial	18	8.7
Passive	15	7.3
Narcissistic	13	6.3
Borderline	13	6.3
Schizotypal	4	1.9

Dependent	3	1.5
Schizoid	3	1.5
Histrionic	2	0.97
Depressive	1	0.48

Prevalence of personality disorders by DSM-IV clusters

The prevalence of personality disorders by clusters is presented in Table 4 below. Personality disorders classified in cluster C had the highest prevalence and were diagnosed in 37.7% (95%CI, $31.1 – 44.7\%$) of the substance abusers undergoing rehabilitation. The prevalence of Cluster C disorders was significantly higher than both cluster B and A disorders which had prevalence of 19.8% (95% CI, $14.6 – 25.9$) and 12.1% (95% CI, 7.97 - 17.3), respectively.

Table 4: Prevalence of DSM-IV clusters of personality disorders among substance abusers admitted to drug rehabilitation centers in Kenya

Personality disorder cluster	Frequency (n)	Percent	95% CI
Cluster A			
Yes	25	12.1	7.97 - 17.3
No	182	87.9	82.7 - 92.0
Total	207	100	
Cluster B			
Yes	41	19.8	14.6 – 25.9
No	166	80.2	74.1 – 85.4
Total	207	100	
Cluster C			
Yes	78	37.7	31.1 – 44.7
No	129	62.3	55.3 – 68.9
Total	207	100	

5.3 Socio-demographic correlates of personality disorders in substance abusers

Analysis of the ages of substance abuser showed that participants with personality disorders were significantly younger than those who abused drugs but did not have personality disorders (*t*-test, p = 0.0059) The average age of substance abusers with personality disorders was 31.8 (SD 9.2) years compared to 35.5 (SD 10) years among those without personality disorders (mean difference = 3.7 years, 95% CI, 1.1-6.4).

Findings of the socio-demographic correlates comparing prevalence of personality disorders among participants with socio-demographic factors are presented in Table 5.

There was a statistically significant association between the marital status of substance abusers with diagnosis of personality disorder, $\chi^2 = 9.4$, p = 0.04. Married and widowed participants were significantly less likely to have personality disorders compared to those in the remaining marital status. Separated, single and divorced substance abusers were at high risk of personality disorders. More specifically, 25% of widowed patients had personality disorders compared to 46% of married, 58% of separated, 65% of single and 100% of divorced substance abusers.

Personality disorders also showed a significant relationship with occupation that the study participants engaged in, $\chi^2 = 13.5$, p = 0.02 (Table 5). The risk of having a personality disorder was high among substance abusers in informal employment, unemployed patients and students. At least 40% of participants in each type of occupation had a personality disorder but this prevalence varied from 43% to 77% depending on the specific occupation that participants reported to be involved in. The lowest prevalence of personality disorders was reported among patients engaging in multiple occupations (43%). This prevalence gradually increased in the following occupations: formal employment (45%), business (49%), informal employment (57%), unemployed participants (72%) and students (77%).

The remaining socio-demographic factors were not significantly associated with the diagnosis of personality disorders in substance abusers undergoing rehabilitation. These factors included gender, $\chi^2 = 3.1$, p = 0.08; level of formal education $\chi^2 = 1.58$, p = 0.75 and religion $\chi^2 = 5.05$, p = 0.16 (Table 5).

Table 5: Chi square tests of association between the prevalence of personality disorders and socio-demographics of substance abusers

	Diagnosis of personality disorder			
	Yes, n (%)	No, n (%)	Chi square (df)	P value
Gender				
Male	109(57)	81(43)	3.1(1)	0.08
Female	6(35)	11(65)		
Marital status				
Single	66(65)	36(35)	9.4(4)	0.04
Married	37(46)	43(53)		
Separated	11(58)	8(42)		
Divorced	2(100)	0		
Widowed	1(25)	3(75)		
Level of education				
None	0	1(100)	1.58(3)	0.75
Primary	4(50)	4(50)		
Secondary	30(59)	21(41)		
Tertiary	81(55)	66(45)		
Occupation				
Formal	35(45)	42(55)	13.1(5)	0.02
Business	20(49)	21(51)		
Student	23(77)	7(23)		
Unemployed	21(72)	8(28)		
Informal	13(57)	10(43)		
Multiple	3(43)	4(57)		
Religion				
Protestant	59(54)	50(46)	5.05(3)	0.16
Catholic	38(51)	36(49)		
Muslim	5(62)	3(38)		
Others	13(81)	3(19)		

Substance abusers' socio-demographics versus clusters of personality disorders

Table 6 presents results of the chi square tests between the socio-demographic characteristics of substance abusers and the clusters of personality disorders. Two factors: occupation and marital status showed statistically significant associations with cluster B personality disorders.

Table 6: Chi square tests of association between the clusters of personality disorders and socio-demographics of substance abusers

	Cluster A personality disorder		Cluster B personality disorder		Cluster C personality disorder	
	Yes, n (%)	No, n (%)	Yes, n (%)	No, n (%)	Yes, n (%)	No, n (%)
Gender						
Male	22(88)	168(92)	37(90)	153(92)	115(89)	75(96)
Female	3(12)	14(8)	4(10)	13(8)	18(11)	3(4)
Chi square p value	0.43		0.75		0.11	
Marital status						
Single	16(64)	86(47)	25(61)	77(46)	41(53)	61(47)
Married	6(24)	47(41)	7(17)	73(44)	30(38)	50(39)
Separated	2(8)	17(9)	7(17)	12(7)	5(6)	14(11)
Divorced	0	2(1)	2(5)	0	1(1)	1(0.8)
Widowed	1(4)	3(2)	0	4(3)	1(1)	3(2.3)
Chi square p value	0.32		0.001**		0.77	
Level of education						
None	0	1(0.6)	0	1(0.6)	0	1(0.8)
Primary	2(8)	6(3)	2(5)	6(4)	3(4)	5(4)
Secondary	6(24)	45(25)	7(17)	44(27)	22(28)	29(22)
Tertiary	17(68)	130(71)	32(78)	115(69)	53(68)	94(73)
Chi square p value	0.51		0.58		0.77	
Occupation						
Formal	4(16)	26(14)	15(37)	15(9)	12(15)	18(14)
Business	8(32)	69(38)	9(22)	68(41)	26(33)	51(40)
Student	2(8)	21(12)	6(15)	17(10)	8(10)	15(12)
Unemployed	3(12)	38(21)	4(10)	37(22)	15(19)	26(20)
Informal	8(32)	21(12)	7(17)	22(13)	14(18)	15(12)

Multiple	0	7(4)	0	7(4)	3(4)	4(3)
Chi square p value	0.2		< 0.0001**		0.82	
Religion						
Catholic	9(36)	65(36)	11(27)	63(38)	26(33)	48(37)
Protestant	12(48)	97(53)	22(54)	87(52)	42(54)	67(52)
Muslim	1(4)	7(4)	2(5)	6(4)	3(4)	5(4)
Others	3(12)	13(7)	6(15)	10(6)	7(9)	9(7)
Chi square p value	0.73		0.19		0.92	

**significant at the 0.05 level

There were no significant associations between clusters A disorders or cluster C disorders and substance abusers' socio-demographic factors (Table 6).

5.4 Types of substances used and problems associated with substance use (ASSIST tool)

5.4.1 *Types of substances used*

Alcohol, tobacco and cannabis were the most frequently reported substances of abuse among the patients undergoing rehabilitations in the centers recruited in this study. Almost all the patients (95.2%) reported alcohol use. The other important substances of abuse in terms of frequency of use were tobacco products used by 168 out of the 207 (81.2%) patients, cannabis use by 54.6% of patients and amphetamine type stimulants use by 47.8% of the participants. Other remaining drugs listed in Table 7 were less frequently used with less than 15% of participants reporting that they had ever used cocaine, caffeine, sedatives or sleeping pills, opioids, inhalants or hallucinogens.

The results are shown in Table 7 below.

Table 7: Substances of abuse among 207 patients admitted in drug rehabilitation centers in Kenya

Substance of abuse	Frequency (n)	Percent
Alcohol	197	95.2
Tobacco	168	81.2
Cannabis	113	54.6
Amphetamine type stimulants	99	47.8
Cocaine	28	13.5
Caffeine	22	10.6
Sedatives or sleeping pills	19	9.2
Opioids	17	8.2
Inhalant	11	5.3
Hallucinogens	6	2.9
Others	1	0.5

5.4.2 *Problems associated with substance use*

a. *Social problems*

Social problems were the most commonly reported problems and were more frequent than health or legal problems. Figure 4 below shows the frequency of patients reports of social problems related to their substance use. At least 85% (176 out of 207) of participants reported they had experienced social problems related to the use of their first drug of choice. A further 25% (52 out of 207) had had social problems related to their use of their second drug of choice and fewer cases had problems with their third (6 out of 207) and fourth (1 out of 207) drugs of choice.

Figure 4: Frequency of social problems reported by substance abusers in drug rehabilitation centers
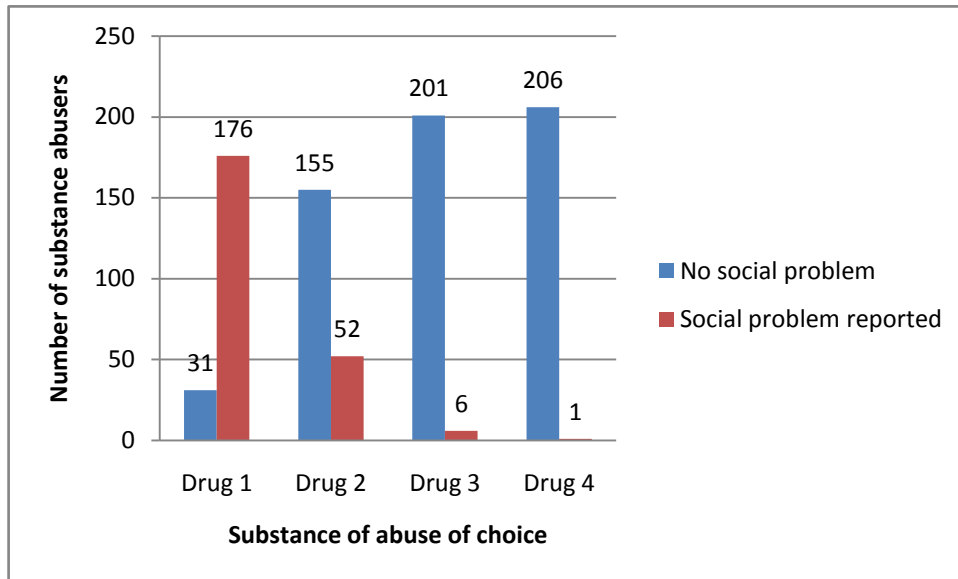
b. *Health problems*

The participants commonly reported that they had ever had health problems related to use of the substance of abuse of choice. Figure 5 shows the frequency of reported health problems for the first four substances of choice among the substance abusers. At least 159 out of the 207 (76.8%) participants reported that they had experienced a health problem related to their first drug of choice. This frequency reduced for subsequent drugs of choice: second (23.7%, n = 49); third (3.4%, n = 7) and fourth (1%, n = 2).

Figure 5: Frequency of health problems reported by substance abusers in drug rehabilitation centers
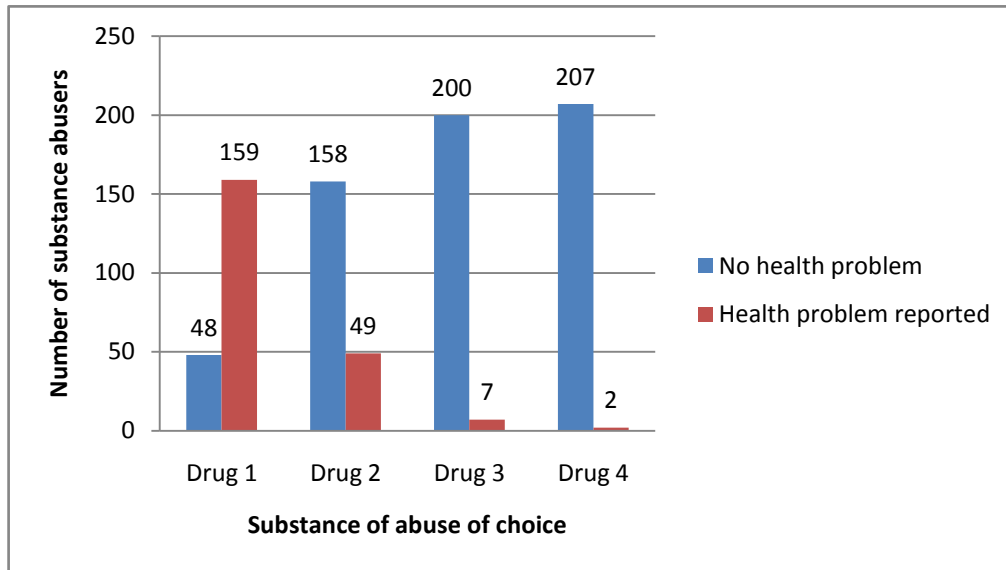
c. *Legal problems*

Legal problems related to substance abuse occurred less frequently compared to social and health problems. However, Figure 6 shows that a significant number of the participants still reported that they had experienced legal problems related to their use of drugs. One-half of the substance abusers (105 out of 207) reported having had legal problems related to their first drug of choice. A further seventeen participants and five participants had experienced legal problems related to abuse of their second and third drugs of choice, respectively (Figure 6).

Figure 6: Frequency of legal problems reported by substance abusers in drug rehabilitation centers
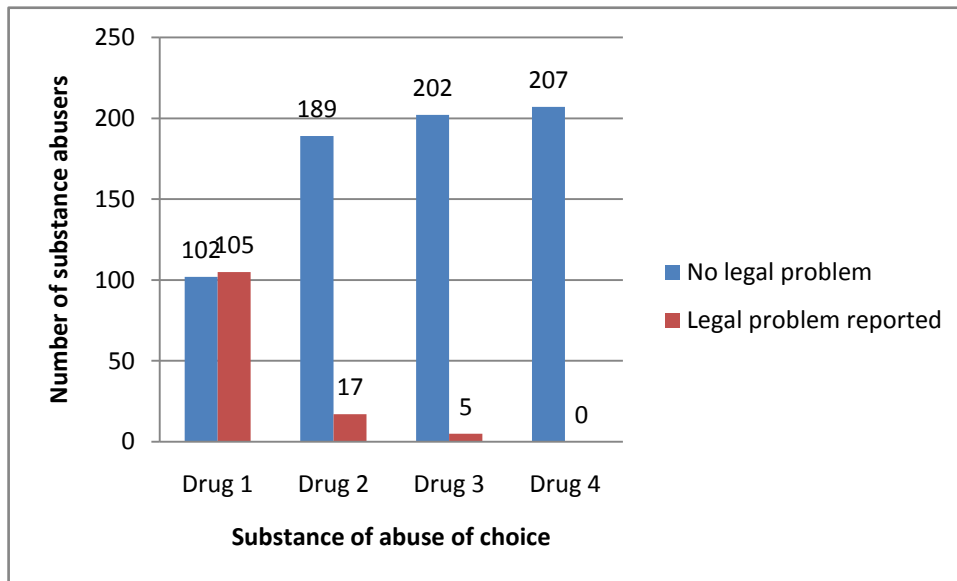
d. *Use of injections to administer drugs of abuse*

Table 8 shows the frequency of use of injections to administer substances of abuse among patients admitted for rehabilitation. Overall, 6.8% of the participants reported ever having injected themselves with substances of abuse. Comparison of self injection rates by the most recent period of injection showed that 5.3% (95%CI, 2.7% - 9.3%) of patients had injected themselves within the last 3 months while 1.5% (95%CI, 0.3% - 4.1%) of patients had ever injected themselves but had not used injections to administer drugs of abuse in the last 3 months.

Table 8: Prevalence of use of injectable drugs of abuse among patients in drug rehabilitation centers

	Frequency (n)	Percent
Administered substance of abuse by injection		
Never	192	93.2
Yes, not during the last 3 months	3	1.5
Yes, during the last 3 months	11	5.3
Total	207	100

32

5.5 Patterns of substance abuse and co-morbid personality disorders

5.5.1 Substances of abuse in relation to personality disorders

The most commonly reported drugs of abuse were alcohol, tobacco and cannabis. The following associations were noted between personality disorders and substance abuse for each of these four common drugs of abuse.

Alcohol and personality disorders

As shown in Table 9 below all the patients with paranoid, antisocial and passive personality disorder had a history of alcohol use. At least 90% of patients with avoidant, obsessive, paranoid, antisocial and passive personality disorders also used alcohol. Conversely, 95% and above of patients without each of the personality disorders listed above also used alcohol. Alcohol use thus did not show any statistically significant associations with prevalence of any of the most common personality disorders (Table 9).

Table 9: Association between alcohol use and common personality disorders

Personality disorder	Alcohol use		
	Yes, n (%)	No, n (%)	P value
Avoidant			
Yes	40(91)	4(9)	0.23
No	157(96)	6(4)	
Obsessive			
Yes	26(90)	3(10)	0.15
No	171(96)	7(4)	
Paranoid			
Yes	21(100)	0(0)	0.60
No	176(95)	10(5)	
Antisocial			
Yes	18(100)	0(0)	0.998
No	179(95)	10(5)	
Passive			
Yes	15(100)	0(0)	0.998
No	182(95)	10(5)	

Tobacco and personality disorders

Table 10 shows associations between tobacco use and prevalence of personality disorders. Most (77% and above) of the patients with each of the leading personality disorders reported tobacco abuse. Eighty six percent of paranoid and 87% of passive personality disorders were found among patients who also used tobacco products compared to slightly lower proportions of patients using tobacco products who did not have these disorders (81% for paranoid and 81% for passive personality disorder).

There was no statistical significance observed between tobacco abuse and personality disorder.

Table 10: Association between tobacco use and common personality disorders

Personality disorder	tobacco use		
	Yes, n (%)	No, n (%)	P value
Avoidant			
Yes	34(77)	10(23)	0.52
No	134(82)	29(18)	
Obsessive			
Yes	22(76)	7(24)	0.45
No	142(82)	32(18)	
Paranoid			
Yes	18(86)	3(14)	0.77
No	150(81)	36(19)	
Antisocial			
Yes	14(78)	4(22)	0.75
No	154(81)	35(19)	
Passive			
Yes	13(87)	2(13)	0.74
No	155(81)	37(19)	

Cannabis and personality disorders

Cannabis use showed a statistically significant association with passive personality disorder (p = 0.012). 83% of patients with passive personality disorder used cannabis compared to only 51% of patients without passive personality disorder who also used cannabis. Cannabis use did not show a significant association with antisocial and avoidant personality disorder neither was it significantly associated with obsessive or paranoid personalities.

Table 11: Association between cannabis abuse and common personality disorders

Personality disorder	Cannabis abuse		
	Yes, n (%)	No, n (%)	P value
Avoidant			
Yes	26(59)	18(41)	0.60
No	87(53)	76(46)	
Obsessive			
Yes	15(52)	14(48)	0.84
No	98(55)	80(45)	
Paranoid			
Yes	14(67)	7(33)	0.84
No	99(81)	87(19)	
Antisocial			
Yes	14(78)	4(22)	0.23
No	154(52)	35(47)	
Passive			
Yes	15(83)	3(17)	0.012
No	98(51)	91(49)	

Amphetamine type stimulants and personality disorders

Both antisocial personality disorder and passive personality disorder showed significant associations with use of amphetamine type stimulants (p=0.03),(p=0.04) respectively. Of the patients with antisocial personality disorder, 72 % reported using amphetamine type stimulants compared to a lower percentage of only 45% for patients without antisocial

disorder. Similarly 73% of patients with passive personality disorder used amphetamine substances compared with 46% of patients without passive personality disorder who also reported having used amphetamines.

Amphetamine use did not show significant associations with the remaining personality disorders including avoidant personality disorder, obsessive and paranoid personality disorders. Results are shown in table 12 below.

Table 12: Association between amphetamine type stimulants use and common personality disorders

Personality disorder	Amphetamine type stimulant		
	Yes, n (%)	No, n (%)	P value
Avoidant			
Yes	24(54)	20(46)	0.40
No	75(46)	88(54)	
Obsessive			
Yes	14(48)	15(52)	0.96
No	85(48)	93(52)	
Paranoid			
Yes	12(57)	9(43)	0.49
No	87(47)	99(53)	
Antisocial			
Yes	13(72)	5(28)	0.03
No	86(45)	103(55)	
Passive			
Yes	11(73)	4(27)	0.04
No	88(46)	104(54)	

5.5.2   *Personality disorder clusters and substance of abuse.*

Table 13 presents findings of chi square tests examining association between personality disorder clusters and the common type of substances used by study participants: alcohol, tobacco, cannabis and amphetamine like drugs. Cluster B personality disorders occurred more frequently in participants who used cannabis compared to those who did not use

cannabis (76% versus 24%, p = 0.003). Similarly these cluster of personality disorders were more common in participant who used amphetamine like substances compared to those who did not use amphetamine (66% versus 34%, p = 0.014).

Table 13: Chi square tests of association between the clusters of personality disorders and type of substance abused

	Cluster A personality disorder		Cluster B personality disorder		Cluster C personality disorder	
	Yes, n (%)	No, n (%)	Yes, n (%)	No, n (%)	Yes, n (%)	No, n (%)
Alcohol						
Yes	25(100)	172(95)	41(100)	156(94)	73(94)	124(96)
No	0	10(5)	0	10(6)	5(6)	5(4)
Chi square p value	0.61		0.21		0.5	
Tobacco products						
Yes	22(88)	146(80)	35(85)	133(80)	63(80)	105(81)
No	3(12)	36(20)	6(15)	33(20)	15(20)	24(19)
Chi square p value	0.43		0.51		0.91	
Cannabis						
Yes	17(68)	96(53)	31(76)	82(49)	44(56)	69(53)
No	8(32)	86(47)	10(24)	84(51)	34(44)	60(47)
Chi square p value	0.2		0.003**		0.77	
Amphetamine						
Yes	15(60)	84(46)	27(66)	72(43)	42(54)	57(44)
No	10(40)	98(54)	14(34)	94(57)	36(46)	72(56)
Chi square p value	0.20		0.014**		0.198	

**significant at the 0.05 level

There was no significant association between alcohol use and any of the three clusters of personality disorders (all p values > 0.05). In fact all the patients with cluster A and B personality disorders also used alcohol and 94% of participants with cluster C disorders also used alcohol. Similarly tobaccos use was also not significantly associated with any cluster of personality disorders.

5.5.3 Multivariate analysis

The multivariate analysis regression coefficients for most substances of abuse showed that substance abuse was positively correlated with prevalence of personality disorders after adjusting for patients' current age, the age of onset of drug abuse, sex, family history of drug abuse and previous rehabilitation (Table 14).

The substances of abuse with positive regression coefficients included alcohol, cannabis, amphetamine type substances, inhalants and hallucinogens. However, only amphetamine type substance abuse was significantly associated with prevalence of psychiatric morbidity ($p = 0.029$). The coefficient for amphetamine use showed that amphetamines use was associated with a 0.793 increase in the chances of personality disorders compared to those patients who did not use these types of substance.

In addition, the current age of patients also showed an independent association with personality disorders ($p = 0.047$). In general the prevalence of personality disorder decreased with age: 25-34 years (coefficient = -0.338), 35-44 years (coefficient = -0.048), 45-54 years (coefficient -1.310). However this prevalence increased after the age of 55 years (coefficient = 0.532).

Age of onset of drug abuse, family history of drug abuse and sex of patient did not show statistically significant associations with prevalence of personality disorders in the multivariate analysis.

Table 14: Results of multivariate logistic regression on factors associated with prevalence of personality disorders among substance abusers

	Coefficient	Standard error	P value	95% confidence interval	
Current age					
25-34 years	-0.338	0.448	0.047*	-1.216	-0.540
35-44 years	-0.048	0.547		-1.120	1.024
45-54 years	-1.310	0.634		-2.553	-0.067
55 years and above	0.532	1.011		-1.450	2.514
Age of onset of drug abuse					
10 -18 years	-14.846	996.3	0.988	-1967.6	1937.9
18 years and above	-14.780	996.3	0.988	-1967.5	1938.0
Sex	-0.633	0.563	0.261	-1.736	0.471
Family history of substance abuse	0.216	0.210	0.304	-0.196	0.627
Previously attended rehabilitation	0.109	0.409	0.789	-0.692	0.911
Substance of abuse					
Alcohol	0.316	0.706	0.654	-1.067	1.700
Tobacco	-0.280	0.416	0.501	-1.095	0.535
Cannabis	0.301	0.361	0.405	-0.407	1.009
Amphetamine type substances	0.793	0.362	0.029*	0.083	1.503
Inhalant	0.225	0.776	0.772	-1.296	1.746
Sedative	-0.091	0.576	0.874	-1.221	1.038
Hallucinogen	0.266	0.960	0.782	-1.615	2.148
Constant	14.892	996.337	0.988	-1937.893	1967.677

5.6   Summary of Results

In Summary the prevalence of at least one personality disorder among substance abusers admitted in drug rehabilitation centres was at 55.7%. The highest cluster with personality disorders was Cluster C at 37.7%, followed by Cluster B at 19.8% and lastly Cluster A at 12.8%. The most prevalent personality disorder seen in these participants was avoidant personality disorder at 21.3% followed by obsessive compulsive personality disorder and paranoid personality disorder at 14% and 10% respectively. Alcohol, tobacco and cannabis were found to be the most abused substances. Cluster B personality disorder occurred more frequently in participants who used cannabis compared to those who did not (p=0.003), similarly this cluster was more common in subjects who used amphetamine compared to those who did not (p=0014). From the socio demographic correlations, participants with personality disorders were found to be younger, less likely to be married and employed compared to participants without personality disorders.

CHAPTER 6

DISCUSSION

This study was carried out to establish the prevalence of personality disorders among substance abusers admitted in drug rehabilitation centers in Kenya. The study found the prevalence of these disorders using SCID II to be at 55.7%. This prevalence rate is consistent with similar studies done in the rest of the world. In the USA Nace et al[31] found a prevalence of 57% of 100 admitted participants with at least one personality disorder. Sonne et al[43] found the prevalence to be at 51% in a similar study. A study by Brandell et al[41] in Norway found this prevalence at 58% while in Spain Haro et al[36] found one of 58.1%.

This study found the predominant personality disorder to be avoidant PD at 21.3%   followed by obsessive compulsive PD at 14%. This differs from other studies; Grant et al[30] in USA found antisocial PD highest (12.3%) followed by obsessive compulsive PD(12.1%) . Guittierez et al[37] in Spain also found similar results of antisocial PD being the highest disorder at 39.2% followed by borderline (37.8). A study by Nace et al[31] found borderline PD to have the highest prevalence at (30%) followed by paranoid PD (12%). In one study by Montalvo et al[39] in Spain among inpatient alcoholics similar results to my study were found with avoidant PD being the highest disorder at 10% followed closely by borderline (6%). Similarly in a study by Pettinati et al[35] in a New Jersey treatment facility compared personality disorders among cocaine and alcohol users, the most prevalent personality disorder among the cocaine users was antisocial (21.8%) while among the alcohol users the disorder most predominant was avoidant personality disorder.

The high prevalence rate of avoidance PD in my study can be explained by the drug of choice by majority of the participants. Majority of the participants in my study were alcohol users. Furthermore, this study was based on a clinical sample with a higher socioeconomic status hence subjects in the study were found to have higher rates of recent employment, these group and setting characteristics may explain the high rate of avoidant personality disorder and lower rate of antisocial personality disorder.

The highest personality disorder cluster was found to be Cluster C (37.7%) followed by Cluster B (19.8%) and lastly Cluster A (12.1%). This was similar to a study by Vanhorn et al[44] in the USA on 334 substance abusers in a dependency unit using SCID II, whereby Cluster C were the most prevalent disorders in 49% of the sample, followed by Cluster B at

35% and finally Cluster A at 9%. A similar study in Norway by Kantojarvi et al[38] in a community sample among patients with mood, anxiety and substance use disorder found Cluster C personality disorders predominant in all three Axis I disorders.

Other similar studies have shown a predominance of Cluster B personality disorders. A clinic based study in Greece by Kokkevi et al[34] found a predominant Cluster B prominence at 48.6%, heroin was the main substance of abuse in this study. The difference in the findings may be associated with the difference in drug of choice in the two studies. Gerdner et al[27] in a recent study on personality factors and drugs of choice in female addicts reported a higher association of alcoholics and benzodiazepine addicts with cluster C personality disorder (37.5%), Amphetamine and heroin users had a greater association with Cluster B personality disorder (50%). Further difference may also be attributed to the difference in treatment seeking behavior . Cluster C patients tend to have a greater treatment seeking behavior than Cluster B and A patients.

The study found that participants with personality disorder were significantly younger than those who abused drugs but did not have a personality disorder (t-test p=0.0059). The average age of substance abusers developing personality disorders was 31.8 (SD 9.2) years compared to 35.5 (SD 10) years among those without personality disorders. Nate et al[31] found a similar finding whereby the personality disorder group was significantly younger with a mean of 31 years than the group without personality disorders with a mean of 38 years. Another similar study by Vanhorn et al[44] also found the subjects with Axis II diagnoses were younger mean age (39.2yrs).

Marital status also had a significant association with personality disorder (p=0.04) with participants with personality disorder less likely to be married. This similar finding was replicated by Vanhorn et al[44]. Nace et al[31] also found the group with personality disorder was less likely to be married (68%) than the group without personality disorder 51% (p<0.05)

Presence of a personality disorder in the participants had a significant relationship with occupation (P=0.02). The group with personality disorder was more likely to be unemployed compared to the group without personality disorder. This is similar to a study by Powell et al[46] in the UK that found patients with personality disorders were on average younger than the other patients, less likely to be married and more likely to be unemployed.

This study found no significant association with gender, level of formal education and religion. This is consistent with the findings of a similar study by Nace et al[31] that found no significant differences in gender between the groups with and without personality disorders.

Association between clusters of personality disorders and common type of substance abused found a significant association of Cluster B with Cannabis and amphetamine like products. These results were also found in a similar study by Gerdner et al[27.] In the study amphetamine users had a greater association with cluster B personality disorder.

STUDY LIMITATIONS.

The following limitations were encountered during the study:

- The few number of drug rehabilitation centres in the country and the relatively small number of patients admitted in these rehabs may have limited the sample characteristics e.g. the gender disparity noted.

- Present results were based solely upon a clinical sample, hence any association observed between substance dependence and personality disorder may be a consequence of referral bias. For example the study excludes the homeless or people belonging to a lower class who in Kenya tend to underutilize the health care resources. Hence, subjects in the study were also more highly educated and had higher rates of recent employment. These group and setting characteristics may explain the high rate of avoidant personality disorder and lower rate of antisocial personality disorder that I found.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The prevalence of personality disorders among substance abusers admitted in treatment facilities in Kenya is comparable to the median prevalence rate calculated over numerous similar studies done around the world. The difference in the predominant personality disorder may be attributed to referral bias in a clinic sample population. Following the significant differences between the substance abusers with and without personality disorders, a uniform approach to substance abuse treatment may be inadequate.

Recommendations

1. Further studies on the prevalence of personality disorders in the general population should be carried out.

2. Active screening for personality disorders in substance abusers with longer term follow up and support for such patients.

3. Need for longitudinal studies in the substance abuse field as little information is available to treatment providers regarding treatment modifications associated with improved outcomes.

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APPENDICES

Appendix 1: Flow Chart illustrating methodology

```
┌─────────────────────┐
│ MEET PATIENTS AT    │
│ REHABILITATION      │
│ CENTRES             │
└──────────┬──────────┘
           │
           ▼
┌─────────────────────┐      ┌──────────┐        ┌──────────────────────┐
│ EXCLUSION CRITERIA  │─────▶│  APPLY   │───────▶│  THANK AND EXCLUDE   │
│                     │      └──────────┘        └──────────────────────┘
└──────────┬──────────┘
           │
           ▼
      ┌──────────────┐                         ┌──────────────────────┐
      │ DO NOT APPLY │────────────────────────▶│  THANK AND EXCLUDE   │
      └──────────────┘                         └──────────┬───────────┘
           │                                              │
           ▼                                              │
┌─────────────────────┐                                   │
│ EXPLAIN AND OBTAIN  │                                   │
│     CONSENT         │                                   │
└──────────┬──────────┘                                   │
           │                                              │
           ▼                                              │
      ┌──────────────┐                                    │
      │ SIGNS CONSENT│                                    │
      └──────────────┘                                    │
           │                                              │
           ▼                                              │
┌─────────────────────────────────────────────┐          │
│ ADMINISTER SOCIODEMOGRAPHIC QUESTIONNARE     │          │
│ ADMINISTER SCID II. ADMINISTER ASSIST        │          │
└──────────┬──────────────────────────────────┘          │
           │                                              │
           ▼                                              │
┌─────────────────────┐                                   │
│ MANAGE              │                                   │
│ THANK PATIENT       │                                   │
│                     │                                   │
│ TERMINATE INTERVIEW │                                   │
└──────────┬──────────┘                                   │
           │                                              │
           ▼                                              │
┌─────────────────────┐                                   │
│ ANALYSIS OF         │◀──────────────────────────────────┘
│ DATA                │
└─────────────────────┘
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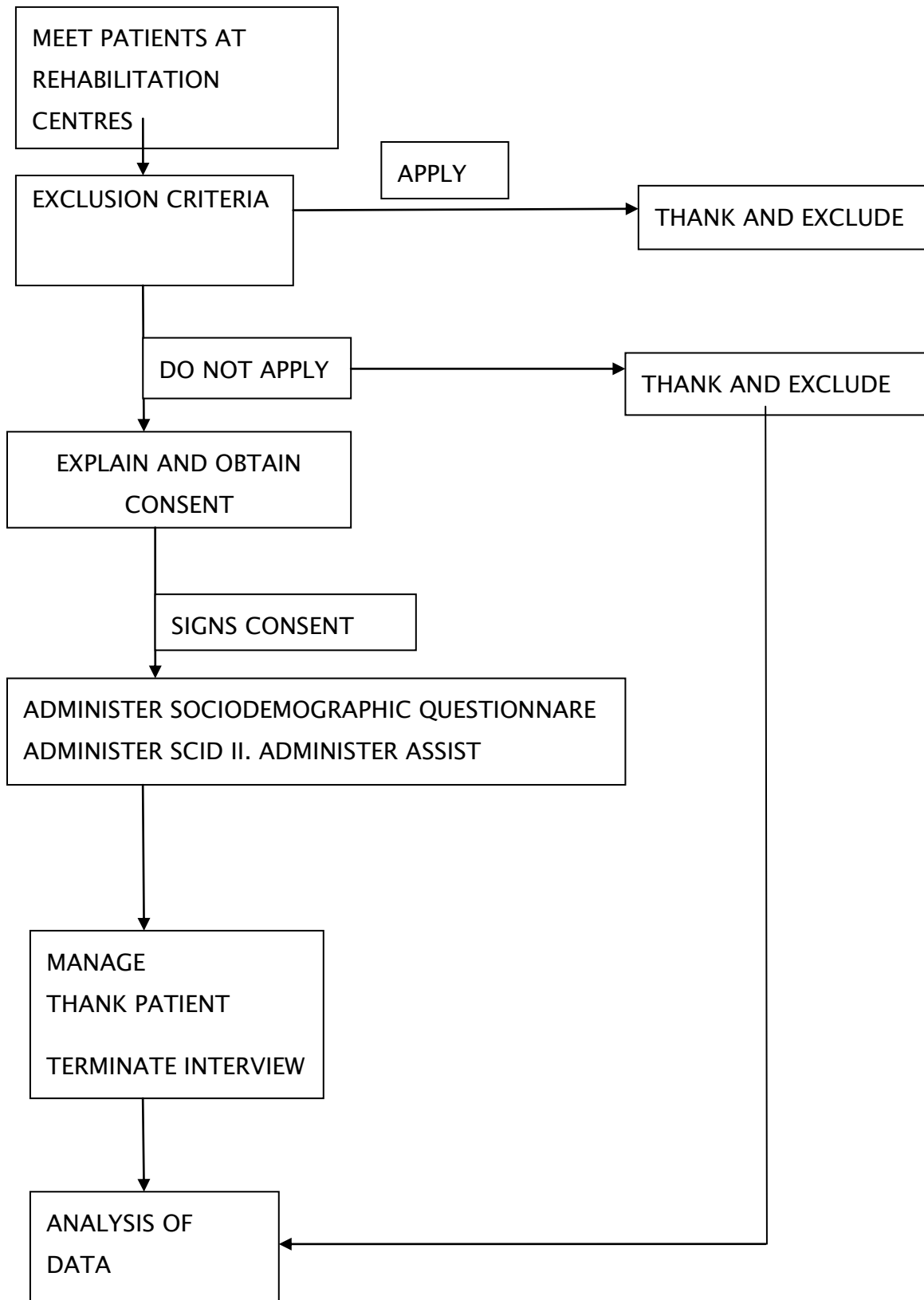
Appendix 2: The Time Schedule

Activity	Time Frame
Proposal Development	May- September 2010
Approval by department	October 2010
Ethical committee clearance	November- January 2010
Data collection	February – April 2011
Data analysis	May 2011
Report Writing	June 2011
Presentation	July 2011

Appendix 3: Budget (Kenya Shillings)

Stationery, printing and Photocopy services	20,000
Internet access/ computer services	20,000
Local transport	50,000
Telephone services	10,000
Data analysis	15,000
Miscellaneous	10,000
Total	**120,000**

Funding will be sourced from personal savings.

Appendix 4: Informed consent Explanation

To be read and questions answered in a language in which the subject is fluent.

(Kiswahili or English)

I, Dr Linnet K. Ongeri, wish to do a study entitled "Prevalence of Personality Disorders among substance abusers in drug rehabilitation centers in Kenya."

The purpose of the study is to establish the magnitude of Personality Disorder co morbidity among this group of patients. The research will be carried out by me under the supervision of Dr Fred Owiti and Dr Mary Kuria who are all Lecturers in the Department of Psychiatry, University of Nairobi.

This is a Medical research study and you are required to understand the following general principles, which apply to all in medical research.

Your participation is entirely voluntary.

You may withdraw from the study at any time.

Refusal to participate will not lead to any penalty or benefit to which you are otherwise entitled.

After you read the explanation, please feel free to ask any questions that will allow you to understand clearly the nature of the study.

The procedure will involve my asking you questions concerning your feelings, thoughts and behavior .I will also ask you questions concerning your history of use of substances such as alcohol, tobacco, cannabis, khat and others and whether their use has led to any health, social, legal or financial problems. No invasive procedure such as drawing of blood will be involved.

All information obtained from this study will remain confidential and your privacy will be upheld. Identification will be by number only; no names will be used in this study or in its future publications.

I hope that information generated by this study will be of benefit, leading to the implementation of better interventions and comprehensive care for patients with substance use problems.

If you have any questions you can contact me on telephone number 0722615999 or my lead supervisor Dr Owiti at the Department of Psychiatry, University of Nairobi. You can also forward any concerns to the KNH/ UON Ethics and Research Committee at Kenyatta Hospital on telephone number 726300-9 or P.O BOX 20723, Nairobi.

Appendix 5: Fomu ya Maelezo ya Maridhiano

Isomwe na maswali yajibiwe kwa lugha ambayo inaeleweka na mshiriki wautafiti.
 (Kiingereza au Kiswahili)

Mimi ni daktari na jina langu ni Linnet K. Ongeri nasoma shahada udhamini ya magonjwa ya akili chuo kikuu cha Nairobi. Nafanya utafiti unaojulikana kama "Personality disorders among substance abusers in drug rehabilitation centres in Kenya".

Dhumuni la utafiti huu nikujua ukubwa wa tatizo la Personality disorders kati ya kundi hili la wagonjwa. Huu utafiti utafanywa na mimi mwenyewe chini ya usimamizi wa Dr Mary Kuria na Dr Owiti ambao wote ni wahadhiri katika kitengo cha magojwa ya akili. Chuo kikuu cha Nairobi.

Huu ni utafiti wa kitabibu na unahitaji kuelewa mambo yafuatayo ambayo hutumika katika tafiti zote za namna hii.

Kushiriki kwako ni kwa hiari. Unaweza kusitisha ridhaa yako ya kushiriki wakati wowote. Kukataa kwako kushiriki haita athiri kwa namna yoyote ile huduma zako za kiafya unazotakiwa kupewa.

Baada ya kusoma maelezo usisite kuuliza maswali endapo utahitaji ufafanuzi. Nitakuuliza maswali yanayohusu vile unajisikia, mafikira na pia tabia yako. Pia nitakuuliza maswali yanayohusu historia yako ya matumizi ya madawa ya kulevya kama vile sigara, pombe,,bangi, miraa na nyinginezo nakujua endapo matumizi ya madawa haya yamekusababishia matatizo mbali mbali kama vile ya kiafya, kijamii au kiuchumi.

Hakutakuwa na utolewaji damu katika utafiti. Habari zitakazopatikana katika utafiti huu zitabakia kuwa siri, na itatumika namba badala ya jina lako katika kukutambua. Natumaini taarifa zitakazopatikana katika utafiti huu zitakuwa za manufaa na zitasaidia katika kuboresha utoaji wa huduma za kiafya miongoni mwa wagonjwa wa madawa ya kulevya.

Endapo utakuwa na maswali yoyote kuhusiana na utafiti huu tafadhali nipigie katika namba zangu za simu ambazo ni 0722615999 au unaweza kuwasiliana na msimamizi wangu mkuu Dr Owiti katika kitengo cha afya na magonjwa ya akili chuo kikuu cha Nairobi. Unaweza pia kuwasilisha dukuduku zako kwa KNH/ UON Ethics and Research Committee at Kenyatta Hospital kwenye namba 726300-9 au S.L.P 20723, Nairobi.

Appendix 6: Consent Form

I, the undersigned do hereby Volunteer to participate in this study. The nature and purpose have been fully explained by Dr Linnet K. Ongeri

I understand that all information gathered will be used for the purposes of this study only.

Signature _____Date_____

    (Patient)

Serial number _____

Signature_____Date_____

    (Dr Linnet K. Ongeri)

Appendix 7: Socio-demographic Questionnaire

Date_____

Serial number_____

1. Age in years_____

2. Sex   Male   ☐   Female   ☐   (tick where appropriate)

3. Marital status.

i. Single   ☐

ii. Married   ☐

iii. Separated   ☐

iv. Divorced   ☐

v. Widowed   ☐

v. Cohabiting   ☐

4. Highest level of education.

i. No formal education   ☐

ii. Primary   ☐

iii. Secondary   ☐

iv. Tertiary (College/University   ☐

5. Occupation

i. Student ☐

ii. Formal employment ☐

iii. Informal employment ☐

iv. Business person ☐

v. Unemployed ☐

vi. More than 1category ☐

   specify_____

Others specify_____

6. Religion

i. Catholic ☐

ii. Protestant ☐

iii. Muslim ☐

iv. Others specify _____ ☐

7. Previous admissions in rehabilitation center i. (Yes) ☐   ii. (No) ☐

If Yes,

Number of previous admissions

1 ☐

2 ☐

>2 ☐

8. Duration of Previous admissions in rehabilitation center

i.	1-7 days	1 week	
ii.	8-14 days	2 weeks	
iii.	15-21 days	3 weeks	
iv.	22-29 days	1 month	
v.	30-60 days	2 month	
vi.	> 61	>2month	

9. Family history of substance abuse i. (Yes)   ii. (No)

☐   ☐

10. Age of onset of substance abuse

     i.   <10yrs

     ii.   10-18yrs

     iii.   >18yrs

Appendix 8: ASSIST Questionnaire

THE ALCOHOL, SMOKING AND SUBSTANCE INVOLVEMENT SCREENING TEST (ASSIST)

1. **In your life, which of the following substance have you Ever used?**	0= No	1= Yes			
a) Tobacco products (cigarettes, chewing tobacco, cigars etc)					
b) Alcoholic beverages (beer, wine, spirits changaa, (kumi kumi)					
c) Caffeine					
d) Cannabis (marijuana, pot, grass, hash, bhang)					
e) Cocaine (coke, crack, etc)					
f) Amphetamine type stimulants (speed, diet pills, ecstasy, khat/ Miraa)					
g) Inhalants (nitrous, glue, petrol, paint thinner, etc)					
h) Sedatives or sleeping pills (valium, Serepax, Rohypnol)					
i) Hallucinogens (LSD, acid, mushrooms, PCP, Special K)					
j) Opioids (heroin, morphine, codeine, Brown sugar)					
k) Other-specify					
Q2 – Q5 tick: 0= Never, 1= once or twice, 2= Monthly, 3=Weekly, 4=Daily or Almost daily	**0**	**1**	**2**	**3**	**4**
2. In the past 3months, how often have you used the substance you mentioned?					
a) Tobacco products (cigarettes, chewing tobacco, cigars etc)					
b) Alcoholic beverages (beer, wine, spirits changaa, (kumi kumi)					
c) Caffeine					
d) Cannabis (marijuana, pot, grass, hash, bhang)					
e) Cocaine (coke, crack, etc)					
f) Amphetamine type stimulants (speed, diet pills, ecstasy, khat/ Miraa)					
g) Inhalants (nitrous, glue, petrol, paint thinner, etc)					

h) Sedatives or sleeping pills (valium, Serepax, Rohypnol)					
i) Hallucinogens (LSD, acid, mushrooms, PCP, Special K)					
j) Opioids (heroin, morphine, codeine, Brown sugar)					
k) Other-specify					
3. During the past 3 months, substance you have mentioned in Q1 how often have you had a strong desire					
a) Tobacco products (cigarettes, chewing tobacco, cigars etc)					
b) Alcoholic beverages (beer, wine, spirits changaa, (kumi kumi)					
c) Caffeine					
d) Cannabis (marijuana, pot, grass, hash, bhang)					
e) Cocaine (coke, crack, etc)					
f) Amphetamine type stimulants (speed, diet pills, ecstasy, khat/ Miraa)					
g) Inhalants (nitrous, glue, petrol, paint thinner, etc)					
h) Sedatives or sleeping pills (valium, Serepax, Rohypnol)					
i) Hallucinogens (LSD, acid, mushrooms, PCP, Special K)					
j) Opioids (heroin, morphine, codeine, Brown sugar)					
k) Other-specify					
4. During the past 3 months, how often has your use of drugs mentioned in question 1 led to health, and social, legal, or financial problems? (**Specify the four leading drugs**)					
Health problems (specify the four leading drugs					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Social problems (specify the four leading drugs					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Legal problems (specify the four leading drugs					

Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
5. During the past 3 months, how often have you failed to do what was normally expected of your Because of your use of: (**Specify the four leading drugs)**					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Q6 – Q8 0=No, Never, 1= Yes, but in the past 3 months , or 2= yes in the past 3 months					
6. Has a friend or relative or anyone else never expressed concern about your use of drug (**if yes Specify the four leading drugs)**	**0**	**1**	**2**		
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
7. Have you ever tried to control, cut down or stop using drug (**if yes Specify the four leading drugs)**					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
8. Have you ever used any drug by injection (non-medical use only(**if yes Specify the four leading drugs)**					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					

Appendix 9

Structured Clinical Interview for DSM-IV Axis-II Personality Disorders (SCID-II)

SCID-II SUMMARY SCORESHEET

Personality Disorder   Number of Items Coded "3"

(Boxed numbers indicate threshold required for a diagnosis.)

01 Avoidant   1   2   3 | 4 | 5   6   7

02 Dependent   1   2   3   4 | 5 | 6   7   8

03 Obsessive -Compulsive   1   2   3 | 4 | 5   6   7   8

04 Passive-Aggressive   1   2   3 | 4 | 5   6   7

05 Depressive   1   2   3   4 | 5 | 6   7

06 Paranoid   1   2   3 | 4 | 5   6   7

07 Schizotypal   1   2   3   4 | 5 | 6   7   8   9

08 Schizoid   1   2   3 | 4 | 5   6   7

09 Histrionic   1   2   3   4 | 5 | 6   7   8

10 Narcissistic   1   2   3   4 | 5 | 6   7   8   9

11 Borderline   1   2   3   4 | 5 | 6   7   8   9

12 Antisocial   1   2 | 3 | 4   5   6   7

13 Not Otherwise Specified | 1 |
    (NOS)

PRINCIPAL AXIS II DIAGNOSIS (i.e., the Personality Disorder that is – or should be – The main focus of clinical attention).

Enter code number from left of diagnosis above: ___ ___

Note: Enter 99 if no Axis II disorder.

OVERVIEW FOR PERSONALITY DISORDERS

Now I am going to ask you some questions about the kind of person you are – that is, how you generally have felt or behaved.

IF A CIRCUMSCRIBEED OR EPISODIC AXIS I DISORDER HAS BEEN PRESENT: I know that there have been times when you have been [AXIS I SYMPTOMS]. I am not talking about those times; you should try to think of how you usually are when you are not [AXIS I SYMPTOMS]. Do you have any questions about this?

How would you describe yourself as a
person (before [AXIS I SYMPTOMS])?

IF CAN'T ANSWER, MOVE ON.

How do you think other people would
describe you as a person (before [AXIS I SYMPTOMS])?

Who have been the important
        (IF MENTIONS ONLY FAMILY:
What about friends?)
How have you gotten along with them?

Do you think that the usual way that you
 react to things or behave with people has
 caused you problems with anyone? (At
 home? At school? At work?) (In what way?)

What kinds of things have you done that other
people might have found annoying?

How do you spend your free time?

If you could change your personality in some
ways, how would you want to be different?

IF PERSONLITY QUESTIONNAIRE HAS BEEN COMPLETED: Now I want to go over the questions to which you answered "yes" on the questionnaire.

IF PERSONLAITY QUESTIONNAIRE HAS NOT BEEN COMPLELTLED: Now I want to ask you some more specific questions.

> **? = inadequate information   1 = absent or false**
> **2 = subthreshold   3 = threshold or true**

AVOIDANT PERSONALITY DISORDER

1. You've said that you have [Have you] avoided jobs or tasks that   ?   1   2   3
    involved having to deal with a lot of people.
    Give me some examples. What was the reason that you avoided
    these [LIST JOBS OR TASKS]?
    (Have you ever refused a promotion because it would involve
    dealing with more people than you would be comfortable with?)

2. You've said that [Do] you avoid getting involved with people   ?   1   2   3
    unless you are certain they will like you.
    If you don't know whether someone likes you, would you ever
    make the first move?

3. You've said that [Do] you find it hard to be "open" even with   ?   1   2   3
    people you are close to.
    Why is this? (Are you afraid of being made fun of or
    embarrassed?)

4. You've said that [Do] you often worry about being criticized or   ?   1   2   3
    rejected in social situations.
    Give me some examples.
    Do you spend a lot of time worrying about this?

5. You've said that you're [Are you] usually quite when you meet   ?   1   2   3
    new people
    Why is that?
    (Is it because you feel in some way inadequate, or not good enough?)

6. You've said that {Do] you believe that you're not as good, as   ?   1   2   3
    smart, or as attractive as most other people.
    Tell me about that.

7. You've said that you're [Are you] afraid to try new things.　　　　? 1 2 3

Is that because you are afraid of being embarrassed?

Give me some examples.

AT LEAST FOUR ITEMS ARE 　　　　　　1　　　3
CODED "3"

↓

AVOIDANT
PERSONALITY
DISORDER
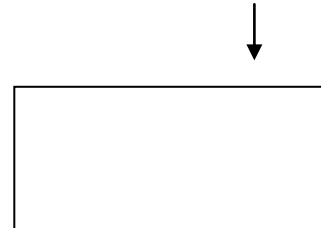
DEPENDENT PERSONALITY DISORDER

8. You've said that [Do] you need a lot of advice or reassurance　　? 1 2 3
from others before you can make everyday decisions – like
what to wear or what to order in a restaurant.

Can you give me some examples of the kinds of decisions you

would ask for advice or reassurance about?

(Does this happen most of the time?)

9. You've said that you [Do you] depend on other people to　　? 1 2 3
handle important areas in your life such as finances, child care
or living arrangements.

Give me some examples. (Is this more than just getting advice

from people?)

(Has this happened with MOST important areas of your life?)

10. You've said that [Do] you find it hard to disagree with people　　? 1 2 3
even when you think they are wrong.

Give me some examples of when you've found it hard to disagree?

64

What are you afraid will happen if you disagree?

11. You've said [Do] you find it hard to start or work on tasks   ?   1   2   3
       when there is no one to help you.
Give me some examples.
Why is that? (Is this because you are not sure you can do it right?)

12. You've said that you have [Have you] often volunteered   ?   1   2   3
       to do things that are unpleasant.
Give me some examples of these kinds of things.
Why is that?

13. You've said that [Do] you usually feel uncomfortable when   ?   1   2   3
       you are by yourself. Why is that? (Is it because you need
       someone to take care of you?)

14. You've said that when a close relationship ends you [When a   ?   1   2   3
close relationship ends, do you] feel you immediately have to
 find someone else to take care of you.
Tell me about that.
(Have you reacted this way almost always when close relationships
have ended?)

15. You've said that [Do] you worry a lot about being left alone   ?   1   2   3
       to take care of yourself.
Are there often times when you keep worrying abut this?
Do you have periods when you worry
about this all the time?

                AT LEAST FIVE ITEMS ARE   1   3
                        CODED "3"   ↓

| DEPENDENT |
| PERSONLITY |

OBSESSIVE-COMPULSIVE PERSONALITY DISORDER

16. You've said that you are [Are you] the kind of person who   ?   1   2   3

    focuses on details, order, and organization or likes to make

    lists and schedules.

Give me some examples

Do you sometimes get so caught up with [EXAMPLES] that

 you lose sight of what you are trying to accomplish?

 (…Like you can't see the forest for the trees?)

(Does this happen often?)

17. You've said that [Do] you have trouble finishing jobs   ?   1   2   3

    because you spend so much time trying to get things

    exactly right.

Give me some examples.

(How often does this happen?)

18. You've said that you or other people feel that you [Do you   ?   1   2   3

    or other people feel that you] are so devoted to work (or school)

    that you have no time left for anyone else or for just having fun.

Tell me about it.

19. You've said that [Do] you have very high standards about   ?   1   2   3

    what is right and what is wrong.

Give me some examples of your high standards.

(Do you follow rules to the letter of the law, no matter what?)

IF GIVES RELIGIOUS EXAMPLES: Do even people who

share your religious views say you're too strict about right and wrong?

20. You've said that [Do] you have trouble throwing things out   ?   1   2   3

because they might come in handy some day.

Give me some examples of things that you're unable to throw out.

(How cluttered does your place get because you don't throw

things out?)

21. You've said that it is [Is it] hard for you to let other people   ?   1   2   3

 help you unless they agree to do things exactly

the way you want.

Tell me about that. (Does this happen often?)

(Do you often end up doing things yourself to make sure

 they are done right?}

22. You've said that it is [Is it] hard for you to spend money   ?   1   2   3

 on yourself and other people even when you have enough.

Why? (Is this because you're worried about not having

 enough in the future when you really need it?)

Tell me about some things you haven't spent money on

 because you have to save for the future.

23. You've said that you are [Are you] often so sure you are right   ?   1   2   3

   that it doesn't matter what other people say.

Tell me about it.

24. You've said that other people have told you [Have other   ?   1   2   3

people told you] that you are stubborn or rigid.

Tell me about that

                    AT LEAST FOUR ITEMS ARE   1   3
                         CODED "3"   ↓

                                                 OBSESSIVE
                                                 COMPULSIVE
                                                 PERSONALITY
                                                 DISORDER

PASSIVE-AGGRESSIVE PERSONALITY DISORDER

25. You've said that when someone asks you to do something   ? 1 2 3
that you don't want to do, you [When someone asks you to do
something that you don't want to do, do you] say yes" but then
work slowly or do a bad job.
      Give me some examples of this.

26. You've said that if you don't want to do something you [If
you don't want to do something, do you] often
just "forget" to do it.
Give me some examples of this.

27. You've said that [Do] you often feel that other people don't   ? 1 2 3
understand you or don't appreciate how much you do.
Tell me more about that. (Do you complain to other
people about this?)

28. You've said that you're [Are you] often grumpy and likely   ? 1 2 3
to get into arguments.
Tell me when this happens.

29. You've said that you've [Have you] found that most of your   ? 1 2 3
bosses, teachers, supervisors, doctors and others who are
supposed to know what they are doing really don't.
Tell me about that.

30. You've said that [Do] you often think that it's not fair that   ? 1 2 3
other people have more than you do.
Tell me more about that.

31. You've said that [Do] you often complain that more than your   ? 1 2 3
share of bad things have happened to you.

Looking back on your life, do you feel that bad things are always
happening to you?

32. You've said that [Do] you often angrily refuse to do what others   ?   1   2   3
want and then later feel bad and apologize.
Tell me more about this.

AT LEAST FOUR ITEMS ARE   1   3
CODED "3"

↓

┌─────────────────────────┐
│ **PASSIVE-**   │
│ **AGGRESSIVE**   │
│ **PERSONALITY**   │
│ **DISORDER**   │
└─────────────────────────┘

DEPRESSIVE PERSONALITY DISORDER

Note: The DSM-IV criterion excludes a diagnosis of Depressive Personality
 Disorder if the behaviour occurs only during Major Depressive Episodes or
 is better accounted for by Dysthymic Disorder. Refer to the User's Guide
for a discussion of options for operationalizng this criterion.

33. You've said that [Do] you usually feel unhappy or   ?   1   2   3
    that life is no fun.
    Tell me about that.

34. You've said that [Do] you believe that you are basically an   ?   1   2   3
    inadequate person and often don't feel good about yourself.
Tell me about that.

35. You've said that you [Do you] often put yourself down.   ? 1 2 3

Tell me about that.

(Do you often blame yourself for things that haven't worked out?)

36. You've said that [Do] you keep thinking about bad things   ? 1 2 3

 that have happened in the past or worry about bad things

 that might happen in the future.

Tell me about that.

37. You've said that [Do] you often judge other harshly and   ? 1 2 3

easily find fault with them.

Give me some examples of the kinds of things you are critical of.

38. You've said that you [Do you] think that most people are

 basically no good.

Tell me about that.

39. You've said that you [Do you] almost always expect things to   ? 1 2 3

turn out badly.

Tell me about that.

40. You've said that you [Do you] often feel guilty about things   ? 1 2 3

you have or haven't done.

What kinds of things?

AT LEAST FIVE ITEMS AR   1   3
CODED "3"

| DEPRESSIVE |
| PERSONALITY |
| DISORDER |

PARANOID PERSONALITY DISORDER

Note: Behaviour should NOT be considered characteristic of Paranoid Personality
Disorder if it occurs exclusively during the course of Schizophrenia, a Mood
Disorder With Psychotic Features, or another Psychotic Disorder or is due
to the direct physiological effects of a general medical condition.

41. You've said that [Do] you often have to keep an eye out to   ?   1   2   3
     stop people from using you or hurting you.
Tell me about that.

42. You've said that you [Do you] spend a lot of time wondering   ?   1   2   3
if you can trust your friend or the people you work with.
Describe situations where you've gotten that feeling.
(Do you feel this way often?)

43. You've said that [Do] you find that it is best not to let other people   ?   1   2   3
know much about you because they will use it against you.
When has this happened? Tell me about it.

44. You've said that [Do] you often detect hidden threats or insults   ?   1   2   3
     in things people say or do.
Give me some examples.

45. You've said that you're [Are you] the kind of person who   ?   1   2   3
holds grudges or takes a long time to forgive people who
have insulted or slighted you.
Tell me about that.

46. You've said that there are [Are there] many people you
can't forgive because they did or said something to you a
long time ago.
Tell me about that.

47. You've said that [Do] you often get angry or lash out when   ?   1   2   3

someone criticizes or insults you in some way.

Give me some examples.

(Do others believe that you often take offense too easily?)

48. You've said that you have [Have you] often suspected that   ?   1   2   3

    your spouse or partner has been unfaithful.

Tell me about that.

(What clues did you have? What did you do about it?

 Were you right?)

                         AT LEAST FOUR ITEMS ARE   1   3

                                  CODED "3"

                                                          ↓

PARANOID PERSONALITY DISORDER

SCHIZOTYPAL PERSONALITY DISORDER

Note: Behaviour should NOT be considered characteristic of Schizotypal

Personality Disorder If it occurs exclusively during the course of

Schizophrenia, a Mood Disorder With Psychotic Features,

another Psychotic Disorder, or a Pervasive Developmental Disorder.

49. You've said that when you are out in public and see people   ?   1   2   3

    talking [When you are out in public and see people

talking, do] you often feel that they are talking about you.

Tell me more about this.

50. You've said that you [Do you] often get the feeling that things
 that have no special meaning to most people are really meant to
 give you a message.
Tell me more about this.

51. You've said that when you are around people, you [When you are
 around people, do you] often get the feeling that you are being
 watched or stared at.
Tell me more about this.

52. You've said that you have [Have you ever] felt that you could   ?   1   2   3
 make things happen just by making a wish or thinking about
 them. tell me about that.
(How did it affect you?)

53. You've said that you have [Have you] had a personal experiences
 with the supernatural. tell me about that
(How did it affect you?)

54. You've said that you [Do you] believe that you have a
 "sixth sense" that allows you to know and predict things
 that others can't.
Tell me about that.
(How does it affect you?)

55. You've said that it often seems [Does it often seem] that   ?   1   2   3
objects or shadows are really people or animals or noises
 are actually people's voices.
(were you drinking or taking drugs at the time?)

56. You've said that you have [Have you] had the sense that
 some person or force is around you, even though you
cannot see anyone.

Tell me more about that.

(Were you drinking or taking drugs at the time?)

57. You've said that you [Do you] often see auras or energy
 fields around people.

Tell me more about that.

(Were you drinking or taking drugs at the time?)

OBSERVED DURING INTERVIEW   ?   1   2   3

Odd thinking and speech (e.g., vague circumstantial,

Metaphorical, over-elaborate or stereotyped)

CODE "3" IF ANY OF PARANOID CRITERIA (1), (2),   ?   1   2   3

 (3), (4). OR (7) ARE CODED "3"

OSERVED DURING INTERVIEW   ?   1   2   3

Inappropriate or constricted affect

   OBSERVED DURING INTERVIEW   ?   1   2   3

Behavior or appearance that is odd, eccentric, or peculiar

58. You've said that there are [Are there] very few people that   ?   1   2   3

you're really close to outside of you immediate family.

How many close friends do you have?

59. You've said that [Do] you often feel nervous when you are   ?   1   2   3

with other people.

What are you nervous about?

(Are you still anxious even after you've known them for a while?)

**AT LEAST FIVE ITEMS ARE
CODED "3"**

1   3

↓

┌─────────────────────┐
│ **SCHIZOTYPAL**   │
│ **PERSONALITY**   │
│ **DISORDER**   │
└─────────────────────┘

SCHIZOID PERSONALITY DISODER

Note: Behaviour should NOT be considered characteristic of Schizoid
Personality Disorder if it occurs exclusively during the course of Schizophrenia,
a Mood Disorder With Psychotic Features, another Psychotic Disorder,
or a Pervasive Developmental Disorder or is due to the direct physiological
effects of a general medical condition.

60. You've said that it is [Is it] NOT important to you whether you   ?   1   2   3
have any close relationships. tell me more about that.
(What about you family?)

61. You've said that you would [Would you] almost always rather   ?   1   2   3
do things alone than with other people.
(Is that true both at work and during your free time?)

62. You've said that you could [Could you] be content without   ?   1   2   3
ever being sexually involved with anyone.
Tell me more about that.
(Have you always had little interest in having sex?)

63. You've said that there are [Are there] really very few   ?   1   2   3
things that give you pleasure.
Tell me more about that.

(What about physical things like eating a good meal or having sex?)

ALREADY CODED ON ITEM (8) FOR SCHIZOTYPAL   ?   1   2   3

PERSONALITY DISORDER.

Lack of close friends other than first-degree relatives

64. You've said that it doesn't [Does it NOT] matter to you what   ?   1   2   3

 people think of you.

How do you feel when people praise you or criticize you?

65. You've said that [Do] you find that nothing makes you very   ?   1   2   3

happy or very sad.

Tell me more about that. (ALSO CONSIDER BEHAVIOUR

DURING INTERVIEW)

AT LEAST FOUR ITEMS ARE   1   3

CODED "3"

| SCHIZOID |
| PERSONALITY |
| DISORDER |

HISTRIONIC PERSONALITY DISORDER

66.   You've said that [Do] you like to be the center of attention.   ?   1   2   3

   How do you feel when you're not?

67.   You've said that [Do] you flirt a lot.   ?   1   2   3

 Has anyone complained about this? (ALSO CONSIDER

76

BEHAVIOUR DURING INTERVIEW)

68.   You've said that you [Do you] often find yourself "coming on"
        to people

       Tell me about it. (ALSO CONSIDER BEHAVIOUR
       DURING INTERVIEW)

       OBSERVED DURING INTERVIEW   ?   1   2   3
       Displays rapidly shifting and shallow expression of emotion

69.   You've said that you [Do you] try to draw attention to   ?   1   2   3
        yourself by the way you dress or look.
       How do you do that?
       Do you do that all the time?

       OBSERVED DURING INTERVIEW   ?   1   2   3
       Has a style that is exceptionally impressionistic and
       lacking in detail

70.   You've said that you [Do you] often make a point of being   ?   1   2   3
        dramatic and colourful.
       Tell me about that. (ALSO CONSIDER
       BEHAVIOUR DURING INTERVIEW)
       (Do you like to show your emotions – for example, hugging
        people even if you don't know them very well or crying very easily?)

71.   You've said that you [Do you] often change your mind about   ?   1   2   3
        things depending on the people you're with or what you have
       just read or seen on TV.
       Tell me more about that.

72.   You've said that you [Do you] have lots of friends that you   ?   1   2   3
        are very close to.

How many? Who are they?

<div style="text-align: center;">

AT LEASET FIVE ITEMS ARE   1

3

CODED "3"

</div>

↓

HISTRIONIC PERSONLAITY DISORDER

NARCISSISTIC PERSONALITY DISORDER

73. You've said that [Do] people often fail to appreciate your   ?   1   2   3
very special talents or accomplishments.
Give me an example

74. You've said that people have [Have people] told you that   ?   1   2   3
you have too high an opinion of yourself.
Give me some examples of this.

75. You've said that [Do] you think a lot about the power, fame   ?   1   2   3
or recognition that will be yours someday.
Tell me more about this.
(How much time do you spend thinking about these things?)

76. You've said that [Do] you think a lot about the perfect romance
that will be yours someday.
Tell me more about this. (How much time do you spend
thinking about this?)

77. You've said that when you have a problem [When you have   ? 1 2 3
    a problem, do]you almost always insist on seeing the top person.
    Give me some examples.
    (Why do you have to see the top person?)

78. You've said that [Do] you feel it is important to spend
    time with people who are special or influential.
    Why is that?

79. You've said that it is [Is it] very important to you that people   ? 1 2 3
    pay attention to you or admire you in some way.
    Tell me more about this.

80. You've said that [Do] you think that its not necessary to follow   ? 1 2 3
    certain rules or social conventions when they get in your way.
    Give me some examples.
    Why do you feel that way?

81. You've said that [Do] you feel that you are the kind of person
    who deserves special treatment.
    Tell me more about this.

82. You've said that [Do] you often find it necessary to step on   ? 1 2 3
    a few toes to get what you want.
    Tell me some instances of that.
    (Does that happen often?)

83. You've said that [Do] you often have to put your needs above   ? 1 2 3
    Other people's. give me some examples of when that happens.

84. You've said that [Do] you often expect other people to do
    what you ask without question because of who you are.
    (Does this happen often?)

85. You've said that you're [Are you] NOT really interested in   ?   1   2   3
    other people's problems or feelings.
    Tell me more about that.

86. You've said that people have [Have people] complained to
    you that you don't listen to them or care about their feelings.
    Tell me more about that.

87. You've said that you are [Are you] often envious of others.   ?   1   2   3
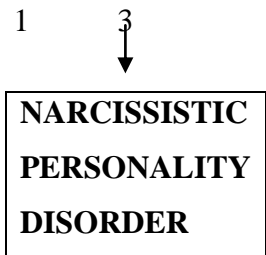   Tell me about it. (How often do you feel that way?)

88. You've said that [Do] you feel that others are often envious
    of you.
    What do they envy about you?

89. You've said that you [Do you] find that there are very few   ?   1   2   3
    people that are worth your time and

    (ALSO CONSIDER BEHAVIOUR DURING INTERVIEW)

                          AT LEAST FIVE ITEMS ARE   1   3
                          CODED "3"   ↓

                                                        ┌─────────────────┐
                                                        │ **NARCISSISTIC** │
                                                        │ **PERSONALITY** │
                                                        │ **DISORDER**   │
                                                        └─────────────────┘

    BORDERLINE PERSONALITY DISORDER

90. You've said that you have [Have you] often become frantic   ?   1   2   3
    when you thought that someone you really cared about was
    going to leave you.
            What have you done?
    (Have you threatened or pleaded with him/her?)

                          80

91.   You've said that [DO] your relationship with people you really   ?   1   2   3
       care about have lots of extreme ups and downs.
       Tell me about them
       (Were there times when you thought they were everything you
       wanted and other times when you thought they were terrible?
       How many relationships were like this?)

92.   You've said that you have [Have you] all of a sudden changed   ?   1   2   3
       your sense of who you are and where you are headed.
       Give me examples of this.

93.   You've said that your sense of who you are often changes [does
          your sense of who you are often change]dramatically.
       Tell me more about that.

94.   You've said that you are [Are you] different with different people
       or in different situation so that you sometimes don't know who
          you really are.
       Give me some example of this.
       [Do you feel this way a lot?]

95.   You've said that there have been [Have there been] lots of
          sudden changes in your goals, career plans, regions beliefs,
          and so on.
       Tell me more about that.

96.   You've said that you've [have you] often done things   ?   1   2   3
        impulsively.
       What kind of things?
       (How about……..buying things you really couldn't afford?
       ……...Having sex with people you hardly know, or unsafe sex?
       ……Drinking too much or taking drugs?….Driving recklessly?
       ……..uncontrollable eating?)

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97.   You've said that you have [Have you] tried to hurt or kill   ?   1   2   3
       yourself or threatened to do so.

98.   You've said that you have [Have] you ever] cut, burned,
       or scratched yourself on purpose.
       Tell me about that.

99.   You've said that [Do] you have a lot of sudden mood changes.   ?   1   2   3
          Tell me about that.
       (How long do your "bad" moods last? How often do these
       mood changes happen? How suddenly do your moods change?)

100. You've said that [Do] you often feel empty inside?   ?   1   2   3
       Tell me about this.

101. You've said that [Do] you often have temper outbursts or   ?   1   2   3
          get so angry that you lose control.
       Tell me about this.

102. You have said that [Do] you hit people or throw things when
       you get angry.
       Tell me about this.
       Does this happen often?

103. You've said that [Do] even little things get you very angry?
       when does this happen?
       (Does this happen often?)

104. You've said that when you are under stress, you [When you are   ?   1   2   3
          under a lot of stress, do you] get suspicious of other people or
       feel especially spaced out.
       Tell me about that

AT LEAST FIVE ITEMS   ARE
CODED "3"   1   3

┌─────────────────────┐
│ **BORDERLINE**   │
│ **PERSONALITY**   │
│ **DISORDER**   │
└─────────────────────┘

ANTISOCIAL PERSONALITY DISORDER

Note: Behaviour should NOT be considered characteristics of
Antisocial Personality disorder if it occurs exclusively during the
course of schizophrenia or a manic Episode.

B. The individual is at least 18 years.   ?   1   2   3
C. There is evidence of conduct disorder with onset before 15 years
[as evidenced by at least two of the following]

105. You've said that before you were 15 would you [before you were   ?   1   2   3
        15,would you] bully or threaten other kids.
    Tell me about that

    You've said that before you were15, you would[before you were   ?   1   2   3
        15 would you] start fights.
    How often?

106. You've said that before you were 15,[before you were 15 did you   ?   1   2   3
        hurt or threaten someone]with a weapon, like a bat, brick, broken
        bottle,knife, or gun.
    Tell me about that.

107. You've said that before you were 15,you deliberately tortured   ?   1   2   3
        someone or caused someone physical pain and suffering.
    [Before you were 15,did you deliberately torture someone or
    caused someone physical pain and suffering?]
    What did you do?

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108. You've said before you were 15 you tortured or hurt animals on   ?   1   2   3
        purpose. [Before you were 15,did you torture or hurt animals on
        purpose?]\

   What did you do?

109. You've said that before you were 15,you robbed, mugged, or   ?   1   2   3
        forcibly take] something from someone by threatening him or her.
   Tell me about it.

110. You've said that before you were 15,did you force someone]   ?   1   2   3
        to have sex with you, to get undresses in front of you, or to
    touch you, or to touch you sexually.
    Tell me about it.

111. You've said that before you were 15 you [Before you were 15,   ?   1   2   3
        did you]set fires.
    Tell me about it

112. You've said that before you were 15, you deliberately destroyed   ?   1   2   3
    [Before you were 15, did you deliberately destroy] things
    that weren't yours. What did you do?

113. You've said that before you were 15 ,did you break]into houses,   ?   1   2   3
        other building, or cars.
    Tell ma about that.

114. You've said that before you were 15,you lied a lot or "conned"   ?   1   2   3
        [before you were 15,did you lie a lot or "con"]other people.
    What would you lie about?

115. You've said that before you were 15, you sometimes stole or   ?   1   2   3
        shoplifted things or forged someone's signature.[before you

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were 15,did you sometimes steal or shoplift things or forge

someone's signature?]

Tell me about it.

116. You've said than before you were 15, you ran away from home   ?   1   2   3

and stay]away overnight

Was it more than once?

(With whom were you living with at the time?)

117. You've said that before you were 13,you would [Before you   ?   1   2   3

were 13,did you] often stay out very late, long after the time

you were supposed to be home.

How often?

118. You've said that before you were 13,you often skipped   ?   1   2   3

[Before you were 13,did you often skip] school.

How often?

AT LEAST TWO ITEMS ARE   1   3

CODED "3"(i.e., "some" evi-

dence of conduct disorder)

CRITERION C OF ANTISOCIAL PERSONALITY DISORDER MET; CONTINUE ON NEXT PAGE

Now, since you were 15…..

Have you done things that are against the law (even if you   ?   1   2   3

     weren't caught) like stealing, using or selling drugs, writing

  bad checks, or having sex for money?

IF NO: Have you ever been arrested for anything?

Do you often find that you have to lie to get what you want?   ?   1   2   3

(Have you ever used an alias or pretended you were someone else?)

(Have you often" conned " others to get what you want?)

Do you often do things on the spur of the moment without   ?   1   2   3

 thinking about how it will affect you or other people?

What kind of things

Was there a time when you had no regular place to live?

(For how long)

Since you were 15 have you been in any fights?   ?   1   2   3

How often?

Have you ever hit or thrown things at your spouse or partner?

How often?

Have you ever hit a child, yours or someone else's – so hard

that he or she had bruises or had to stay in bed or see a doctor?

Tell me about that.

Have you physically threatened or hurt anyone else?

Tell me about that. (How often?)

Did you ever drive a car when you were drunk or high?   ?   1   2   3

How many speeding tickets have you gotten or car accident
 have you been in?

Do you always use protection if you have sex with someone
you don't know well?
(Has anyone ever said that you allowed a child that you were
taking care of to be in a dangerous situation?)

How much of the time in the last 5 years were you not working?
IF FOR A PROLONGED PERIOD: Why (Was there work available?)
When you were working, did you miss a lot of work?
IF YES: WHY?
Did you ever walk off a job without having another one to go to?
IF YES: How many times did this happen?

Have you ever owed people money and not paid them back?
(HOW OFTEN?)
What about not paying child support, or not giving money to
children or someone else who depended on you?

IF THERE IS EVIDENCE OF ANTISOCIAL ACTS AND   ?   1   2   3
IT IS UNCLEAR WHETHER THERE IS ANY REMORSE:
How do you feel about [LIST ANTISOCIAL ACTS]?
(Do you think what you did was wrong in any way?)

AT LEAST THREE ITEMS ARE
CODED "3"

1   3

↓

> **CRITERION A**
> **OF ANTISOCIAL**
> **PERSONALITY**
> **DISORDER MET**

CRITERIA A, B, AND C ARE
CODED "3 "

1   3

↓

> **ANTISOCIAL**
> **PERSONALITY**
> **DISORDER**

PERSONALITY DISORDER NOT OTHERWISE SPECIFIED

This category is for disorders of personality functioning that do not meet criteria for specific personality disorder. An example is the presence of features of more than one personality disorder that do not meet the criteria of any one personality disorder ("mixed personality") but together cause clinically significant distress or impairment in one or more important areas of functioning (e.g., social or occupational). This category can also be used when the clinician judges that a specific personality disorder is not included in the classification (e.g., self defeating personality disorder) is appropriate.

1   3

↓

> **PERSONALITY**
> **DISORDER**
> **NOT**
> **OTHERWISE**
> **SPECIFIED**