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Patient profile and adverse incidents in a specialised inpatient psychotherapy unit in South Africa

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PATIENT PROFILE AND ADVERSE INCIDENTS IN A SPECIALISED INPATIENT PSYCHOTHERAPY UNIT IN SOUTH AFRICA

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, in partial fulfillment of the requirements for the degree of Master of Medicine in the branch of Psychiatry

Johannesburg, 2012

Declaration

I, Lesley Jane Robertson, declare that this dissertation is my own work. It is being submitted for the degree of Master of Medicine in the University of the Witwatersrand, Johannesburg. This research report represents original work by the author and has not previously been submitted for any degree or examination at this or any other University.

.....

Lesley Jane Robertson

30th day of July, 2012

Dedication

This work

is dedicated with love

to my husband,

Anthony,

and children,

Jessica and Matthew

Acknowledgements

The Candidate wishes to express thanks to:

- Professor Rita Thom, of the University of the Witwatersrand, for her supervision, support and encouragement of this work;

- Professor Piet Bekker, of the Medical Research Council in Pretoria, for his time and assistance with the data analysis;

- Dr Ella Brent, Clinical Psychologist, for her advice in developing the protocol for the study;

- The staff at Tara Hospital records department for unwearyingly retrieving and replacing patient files.

Abstract

Objectives: To describe the demographic and clinical profile of patients admitted to a specialised psychotherapy unit. Secondarily, to document adverse incidents and premature discharges, and examine possible associated variables.

Method: The study is a retrospective review of clinical records of patients admitted to the Tara hospital psychotherapy unit during 2007 and 2008.

Results: One hundred and eighty one patient files were reviewed. These patients were predominately white (80.7%), English speaking (63.5%) women (86.7%), with cluster B personality traits (74%). Mood disorders and substance use disorders were the most frequent Axis I diagnoses. There was high co-morbidity on both Axis I and Axis II.

Thirty four patients refused hospital treatment (RHT) after having been admitted and there were 22 adverse incidents. After multivariate analysis, adverse incidents were most strongly associated with self-harming behaviour prior to admission and a history of substance use. Only self-injury was found to be associated with RHT.

Conclusion: The study showed that the patients admitted to the Tara hospital psychotherapy unit did not reflect the demographics of the general Gauteng population. This confirms the need for further research regarding awareness and referral patterns of personality disorders with respect to the different ethnicities in South Africa. Adverse events during hospital admission may be reduced by establishing suitable protocols, or using an alternative setting for treatment of patients with self-injury.

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CHAPTER 1

INTRODUCTION

1.1 Literature Review

This study is about the profile of patients admitted to an inpatient psychotherapy unit in Johannesburg over a period of two years. Many of the patients referred to this unit have a borderline personality disorder (BPD), as these patients are difficult to manage within the general psychiatric service, and, in Johannesburg, there are no specialised outpatient clinics for the treatment of BPD. The literature review will therefore focus on BPD.

According to DSM-IV TR, a Personality Disorder (PD) relates to the manner in which an individual functions, socially and interpersonally, within their cultural context, with respect to that person's inner experience and outward behaviour. The personality traits involved are thought to be pervasive, inflexible and stable over time, and lead to personal distress and functional impairment.[1] DSM-IV TR has a categorical approach to the diagnosis of PD, with the different disorders being grouped into clusters. Cluster A disorders have "odd-eccentric" personality traits and include paranoid, schizoid and schizotypal PDs. In cluster B disorders the characteristic traits are of a "dramatic-emotional" nature. Antisocial, borderline, histrionic and narcissistic PDs fall into this cluster. Disorders in which "anxious-fearful" traits predominate are grouped into cluster C and include avoidant, dependent and obsessive-compulsive PDs.

The prevalence of PDs differs across countries, possibly due to differences in methodology used in the various studies, and maybe due to differences in culture. Gunderson[2] cites a prevalence of BPD of 6% in primary and community-based care samples, and 15-20% in psychiatric hospital and outpatient populations. Clarkin et al cite a prevalence of BPD of 1.3%-1.4% in the general population,[3] 11% in psychiatric outpatients and 19% in inpatients.[4] Very little research on PDs has been performed in

Africa. As part of the South African Stress and Health Study (SASH), Suliman et al[5] found a prevalence of any PD in the community of 6.8%, and of cluster B disorders of 1.5%. A breakdown of the different types of PD was not given in this analysis. A study in Kenya on psychiatric inpatients found a prevalence of 20%, with 87% of these being cluster B PDs; again no breakdown of the different types of PD was given.[6]

In BPD the individual experiences intense inner pain, marked affective and cognitive disturbance and poor self-regulation. Severe behavioural and interpersonal problems ensue, with high utilization of medical and psychiatric services.[4,7-10] The core features of BPD are unstable interpersonal relationships, a poor sense of self, fears of abandonment, affective dysregulation and impulsivity.[1] These features have been shown to run in families and to be highly heritable.[2,7,8] Gunderson cites a heritability rate of 42% - 68%, similar to that of hypertension.[2] Functional neuroimaging studies have shown BPD to be associated with dysfunction in the interaction between the prefrontal cortex and the limbic system. Within the limbic system the amygdala has been shown to be hypersensitive, particularly to stimuli involving interpersonal communication, with reduced inhibition from the prefrontal cortex. In addition there are disturbances of monoamine neurotransmission, opioids and the neuropeptide, oxytocin.[2,7] However, environmental influences are significant in the pathogenesis of BPD. In particular, childhood adversity and disturbed early attachment relationships are important factors in the development of the disorder within an individual.[2,4,8] There is evidence that stress and adversity during early life affect the cortisol stress response negatively and impact on brain development.[11] This could possibly contribute to the biological changes noted above.

Various clinical working models of BPD have developed over time. These assist in understanding the behaviour of the sufferer and informing the treatment of the disorder. One such model, proposed by Zanarini and Frankenburg[8], suggests that the individual with BPD experiences intense and persistent inner pain with both affective and cognitive components. The individual then attempts to manage this pain in a counterproductive manner, causing behavioural and interpersonal difficulties which result in frequent utilization of psychiatric and general health services. People with BPD often present in 'crisis', in which a suicide attempt or self-injury may have occurred.[2,4,1012] In addition, there is a complex interaction between Axis I (psychiatric disorders) and Axis II disorders (personality disorders), with high levels of comorbidity which tend to worsen the outcome of both and create further demands on psychiatric services.[4,13-16] Associated behaviours of substance misuse, unstable relationship patterns, child abuse, poor occupational functioning and criminal behaviour result in significant public health and societal problems.[2,9]

In the past PDs, especially BPD, were thought to be very stable, resistant to most interventions and to carry a poor prognosis.[2,10] As a result they were often approached with a pessimistic attitude, and psychiatrists have been criticized for not attending to PDs in their clinical practice.[17-19] Two longitudinal studies, the Collaborative Longitudinal Personality Disorders Study (CLPS) and the McLean Study of Adult Development (MSAD), have refuted this and contributed to a more positive climate of therapeutic intervention with a goal of long term remission.[2,19-21] Both CLPS and the MSAD showed a high rate of remission of symptoms (86% sustained 4 year remission in MSAD) and a low rate of relapse once sustained remission had occurred (MSAD; 15%). Zanarini et al comment that this rate of recurrence is lower than that expected for major

depressive or dysthymic disorders[21]; a comment supported by CLPS.[18] In addition, remission was found to be associated with an improvement in functioning, reduced Axis I comorbidity and reduced rates of physical and general medical complaints.[20] However, full recovery with good social and occupational functioning was achieved less frequently (40% of patients required a disability grant after 10 years in CLPS; in MSAD 50% attained full recovery for a period of 2 years, with a recurrence of 34%).[19,20] It is postulated that remission may be achieved by the patient learning to cope with the symptoms of their disorder, and, once this learning has occurred, the symptoms are unlikely to re-occur, but psychosocial deficits persist and functioning often remains poor.[19-22] The suggestion is made in both CLPS and MSAD that psychosocial rehabilitative strategies could be a focus in the development of new forms of treatment for BPD.[19,21]

Psychotherapy remains the treatment of choice for BPD, with no single form of therapy being clearly superior to another.[2-4,7,8] Dialectical Behavioural Therapy (DBT) was developed specifically for BPD and has been well researched and shown to be effective in reducing the symptoms of the disorder.[2,4,10,23,24] However, randomised controlled trials (RCTs) have shown several forms of psychotherapy to be efficacious.[2-4,8,,25,26] Gunderson gives examples of four types of psychotherapy, all of which are superior to non-specific usual psychiatric care, with significant reduction of emergency admissions, use of medication, self-harm and suicidality.[2]

Although psychotherapy is the primary form of treatment for BPD, pharmacotherapy has a role as an adjunctive treatment in the management of core symptoms such as impulse dyscontrol or affective instability.[2,7,8,27,28] Mood stabilisers and atypical antipsychotics

appear to be superior to antidepressants in treating such symptoms, and may have a wider effect than that anticipated,[7] but do not treat the disorder as a whole.[27,29] Despite this, polypharmacy, with its side effects, has been observed to be common in clinical practice, and was documented in MSAD.[2,8,20] The National Institute of Health and Clinical Excellence (NICE) cautions against the use of psychopharmacology for the treatment of BPD or the individual symptoms. In keeping with this, NICE advocates continuous review of medication prescribed during a crisis. However, pharmacological treatment of co-morbid Axis I conditions is encouraged.[29]

Finally, BPD is costly to health and psychiatric services and to society as a whole. Direct effects of the disorder include costs related to the acute symptoms, worsening of Axis I conditions, and possibly of comorbid medical diseases. In addition, the poor functioning is associated with a loss of productivity. Indirect consequences of the impulsivity and poor self-regulation include substance use, reckless driving and criminality, with far-reaching effects on society.[2,3,10,30-33] Effective modes of treatment have been shown to reduce health service utilization with maintenance of the cost benefits for 2 to 5 years.[2]

The optimal treatment setting for PDs has not been established, and there is little research regarding this as most RCTs compare a specialised programme with 'treatment as usual' or another programme in the same setting.[34] A recent non-randomised controlled study in the Netherlands compared three settings in the treatment of cluster B disorders – outpatient (with specialised psychotherapy), day-hospital and inpatient.[34] Patients improved in all settings in both psychiatric symptomatology and psychosocial functioning, with a marginally significant greater improvement of symptoms amongst the inpatient group compared to the outpatient group. However, treatment compliance

was better in the outpatient group, and patients remained in therapy for longer. Chiesa et al[35] compared community care with a long-term residential program and found similar improvement in both groups. Of note, the community care group had significantly better treatment adherence and a far greater reduction in self-mutilation, suicidality and emergency admissions. When evaluating the influence of self-harming behaviour on outcome in both community based and residential care, Chiesa et al found that those with self-injury did better in community care, whereas those without self-harming behaviour fared slightly better in residential care.[36] No other studies directly comparing outpatient with inpatient care were identified for this review.

In evaluating the use of mental health services over ten years by patients with BPD in MSAD, Hörz et al[37] conclude that these patients tend to use outpatient treatment continuously over prolonged periods of time. The use of psychiatric hospitalisation (not necessarily BPD specific hospitalisation) was intermittent and showed a greater decline over time than the use of outpatient individual therapy. NICE recommends comprehensive multidisciplinary care plans within community mental health services. It reminds members of the team that, when forming a therapeutic relationship, many people with BPD will have experienced rejection, abuse and trauma. Stigma associated with their behavioural disturbance would also have been encountered. NICE cautions against the use of brief (less than 3 months duration) psychological interventions outside a comprehensive service.[29] These ideas point to the necessity of available, effective, specialised treatment of BPD; both for the benefit of the individual sufferer, and of society.

1.2 South African Perspective

Despite the fact that neuropsychiatric illness forms almost 14% of the global burden of disease, and that psychiatric disorders feature prominently in the top ten causes of disability worldwide, mental illness is still inadequately addressed in sub-Saharan Africa.[38-40] Communicable diseases and maternal and child health are prioritized in Africa, as they are seen to represent the highest burden of disease and mortality. This perception appears to be reinforced by a lack of understanding of the interaction between mental illness and other health conditions, and the idea that they are separate in their effect on the total burden of disease. However, evidence points towards a complex relationship between mental illness and general health, in which poor mental health has a significant negative effect on other health conditions.[38,39] In addition, there is growing evidence of a negative cycle between mental illness and poverty, which may be interrupted by improved management of mental disorders.[40-42] It has been argued that it will be impossible to achieve certain Millennium Development Goals without addressing mental health issues.[38,40]

Within the spectrum of mental illness in Africa, most attention is given to primary Axis I disorders and psychiatric illness due to medical disease, especially HIV infection and epilepsy.[38,39] There is also an awareness of growing societal concerns, such as violence, substance use, injuries, prostitution and child abuse.[38,39] However, there is very little research on PDs in Africa, and none was identified in this literature search regarding the influence of personality on other conditions. Nevertheless, the incidence of PDs in 20% of psychiatric inpatients in Kenya[6] and the prevalence of cluster B PDs of 1.5% in South Africa[5] represent a large burden in countries with limited resources.[6] The impact of this burden on society and general health in Africa is not known.

The situation in South Africa differs from that in the rest of Africa because of its apartheid past in which racially divided centralised institutional care was developed with limited community mental health resources.[42,43]. Post-apartheid mental health policy guidelines were developed in 1997. These recommended decentralisation of care with the development of community based services and improved accessibility and availability of mental health services to the general population. However, little of this has been accomplished, and mental health has continued to be of low priority in the context of general health.[42,43]

With regards to PDs in South Africa, comprehensive multidisciplinary services within community mental health are often lacking, and there is still dependence on specialised psychotherapy units. How much of a service these units provide and how successful is the outcome of their care is not known. Joska and Flisher reviewed the services provided at a specialised inpatient psychotherapy unit at Valkenberg Hospital in Cape Town. They found that while psychiatric and medical needs were addressed, psychosocial needs were largely unmet. In particular, patients with BPD had a high number of unmet needs.[12]

1.3 Purpose and Background of this Study

The purpose of this study was to perform a clinical audit of the service provided by the psychotherapy unit at Tara hospital in Johannesburg. Tara hospital is a specialised psychiatric hospital situated in the northern suburbs of Johannesburg. The psychotherapy unit treats personality disorders, depression and anxiety. It is the only inpatient unit of this nature in Southern Gauteng and serves a wide area, including the Johannesburg, Ekurhuleni, West Rand and Sedibeng health districts. Patients are

referred by general psychiatrists in acute hospitals, community clinics, the private sector and the outpatient department at Tara hospital.

Admission to the unit is on a voluntary basis and family involvement is essential. A treatment contract is signed, in which the patient commits to attendance of all ward activities. The patient and a family member sign an agreement as to the removal and destruction of illicit, recreational or harmful substances. Contracts regarding self-harm, poor impulse control and anger management are also signed by the patient.

During the admission the patients are managed by a multidisciplinary team consisting of a psychiatrist, clinical psychologist, occupational therapist, social worker, psychiatric nursing staff, psychiatric registrar and psychology intern. The patients participate in a six week programme, consisting of a closed DBT group twice a week for three weeks followed by three weeks of more emotionally evocative group therapy. Should the patient be unsuitable for the second part of the programme they may repeat the DBT group, and then continue with the more intensive group therapy for three weeks or be discharged. During their admission the patients receive individual psychotherapy twice a week and participate in open groups related to life skills and substance use.

1.4 Objectives

Primary Objectives

1. To conduct a descriptive study of the demographic and clinical profile of patients admitted to the Tara hospital psychotherapy unit in 2007 and 2008
2. To document adverse incidents and premature discharges that occurred during this period and to explore possible associated variables.

An adverse incident is considered to be an incident which interferes with the treatment process and which may result in premature discharge of the patient, drop-out from the programme or referral to another facility. Adverse incidents include breaking ward rules, self-harming behaviour, acting out and suicide attempts. A premature discharge may be a consequence of the adverse incident (dismissal from the programme) or a result of the patient refusing hospital treatment (RHT) during the admission.

Secondary Objectives

To explore the relationship of the adverse incidents to the staff: patient ratio in the ward at the time of the incident.

Implementation Objectives

To make recommendations around service delivery with specific reference to appropriate reporting of incidents, anticipation of adverse incidents and recognition of areas where patient needs are not met by the service.

CHAPTER 2

MATERIALS AND METHODS

2.1 Study Design

The study was a retrospective record review of patient files from the psychotherapy unit at Tara hospital. It is a descriptive study with an analytical component involving adverse incidents and premature discharges, including RHT.

This research was approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg; Protocol Number M080915

Study Population

All of the 203 patients admitted to the psychotherapy unit during 2007 and 2008 were included in the study. However, files were only retrieved for 181 of these patients, the remainder of the files not being found in the records department for unknown reasons. When patients were readmitted during the two year period, data was collected from each admission as a separate entity.

The exclusion criteria were the same as that for admission to the unit, which excludes patients who are psychotic, currently using substances or actively suicidal. In general patients under the age of 18 years are not admitted to the programme unless the presenting complaints and lifestyle of the patient are of an adult nature.

Measurements

Information was drawn from the clinical records of the individual patients and the incident reports. Measurements taken were those used in routine care of patients, and were as follows:

- Demographic data on admission sheets – gender, age, marital status, highest level of education, occupation, population group (as classified in the 2001 Census), home language and religion.
- Hospital classification on admission (and discharge)
- Referral source
- Date of admission and date of discharge
- Nature of discharge – discharge, premature discharge due to non-compliance with the programme, transfer to Sterkfontein or RHT
- Global assessment of functioning (GAF) ratings on admission and discharge
- Adverse incidents requiring transfer to Sterkfontein hospital, premature discharge or containment within the therapeutic programme.
- Axis I diagnosis according to the discharge summary
- Axis II diagnosis according to the discharge summary
- Axis III diagnosis if there was an Axis I diagnosis due to a general medical condition (GMC)
- History of substance use
- Age at index presentation to psychiatric services
- Suicide attempt / parasuicide in the two years prior to admission
- A history of self-harming behaviour either precipitating referral to the programme or occurring immediately prior to admission.
- Psychopharmacology according to class of medication prescribed on discharge

Measurements from incident reports completed by nursing and medical staff:

- Nature of the incident
- Consequence of the incident

2.2 Data Analysis

Data analysis was performed using STATA software version 10.0 (Stata Corporation, College Station, Texas, USA). The parameters measured were condensed to limit the number of variables to two, except for marital status and GAF scores. Therefore education level was simplified to secondary or tertiary achievement, population group to 'Black' (Coloured, Indian or Black African) or 'White' and age at index psychiatric presentation to before or after 18 years. Terms used for the different population groups are those used in the 2001 census. 'Marital' status was used for relationship status and simplified into 'married', 'divorced' or 'single'. 'Married' included those with traditional or common-law marriage, or co-habitation. 'Divorce' was applied to a permanent separation after marriage, living together or common law marriage. 'Single' was used for patients who were not, and never had been, in a long-term stable relationship.

Associations between serious adverse incidents and the patients' demographic data, GAF score on admission, age at index psychiatric presentation, history of substance use, a recent suicide attempt or self-harming behavior was explored using Fisher's Exact Test. Univariate and multivariate analysis using logistic regression was then performed to establish any significant relationship between these variables and the adverse incidents. The same variables were explored in the same manner regarding those patients who refused hospital treatment after they were admitted.

CHAPTER 3

RESULTS

3.1 Demographics

Of the 181 admissions, 157 were female patients (86.7%) and 24 (13.3%) male. Most of the patients were aged between 18 and 45 years. The age distribution is shown in Table 3.1. Four patients were less than 18 years of age. Just over 50% of the patients were single and another 18.2% were either divorced or separated from their partner. Only 50 patients (27.6%) were either married or living with their partner in a stable relationship. These data are depicted in Table 3.2.

Table 3.1 Age distribution of patients admitted in 2007 and 2008

Age	Number of Patients	Percentage of Total
<18 years	4	2.21
18 – 25 years	51	28.18
26 – 35 years	60	33.15
36 – 45 years	43	23.76
46 – 55 years	18	9.94
56 – 65 years	5	2.76

Table 3.2 Relationship status of patients admitted in 2007 and 2008

Relationship Status	Number of Patients	Percentage of Total
Single	94	51.93
Married / Co-habiting	50	27.62
Divorced / Separated	33	18.23
Widow / Widower	2	1.10
Unknown	2	1.10

Regarding population group, the majority of patients were White (146 or 80.67%), 22 were Black African, 8 Coloured and 5 Indian. This is compared with data for Gauteng from the 2001 Census in Table 3.3. As can be seen from this comparison, the population groups of the patients admitted do not reflect those of the province which is served by Tara Hospital.

Table 3.3 Population group of patients admitted in 2007 and 2008

Population Group	Number of Patients	Percentage of Total	2001 Census Percentage
Black African	22	12.15	73.8
Coloured	8	4.42	3.8
Indian / Asian	5	2.76	2.5
White	146	80.66	19.9

The home language used by patients reflects the distribution of population group, but indicates that the majority of whites admitted are English rather than Afrikaans speaking. One hundred and fifteen patients were English speaking, 40 Afrikaans speaking and 21 used an African language as their first language. Other European languages were used by 3 patients and the language was unknown in 2 patients. As with the population group, this is compared with data for Gauteng in the 2001 Census. As is delineated in Table 3.4, Afrikaans is spoken more commonly than English in Gauteng, suggesting that a disproportionate number of English speaking whites were admitted to the unit during the two years studied.

One hundred and thirty one patients were Christian, 17 Jewish, 3 Muslim and 1 Hindu. Eighteen patients declared no religious affiliation, 7 belonged to an alternative religious movement and religious affiliation was unknown in 4 patients.

Table 3.4 Distribution of home language of patients admitted in 2007 and 2008

Language	Number of Patients	Percentage of Total	2001 Census Percentage
English	115	63.54	12.5
Afrikaans	40	22.10	14.4
Sesotho, Setswana or Sepedi	12	6.63	32.2
IsiZulu or IsiXhosa	9	4.97	29.1
Other European Language	3	1.66	Not documented
Unknown	2	1.10	0
Other	0	0	11.8

Regarding education, all patients had at least some secondary school education. Five had a National Certificate and 69 had matriculated. Sixty one patients had a tertiary level of education, 42 with a diploma and 19 with a University degree. The highest level of education was unknown in one patient. The general level of education of the patients was higher than that found for the general population of Gauteng in the 2001 Census. These figures are depicted in Table 3.5.

Table 3.5 Highest level of education of patients admitted in 2007 and 2008

Highest Level of Education	Number of Patients	Percentage of Total	2001 Census Percentage
No Schooling	0	0	8.4
Some Primary	0	0	11.2
Completed Primary	0	0	5.5
Some Secondary	45	24.9	34.3
National Certificate, N1 – N3	5	2.8	Not documented
Grade 12 / Matric	69	38.1	28.0
Tertiary / Higher Education	61	33.7	12.6
Unknown	1	0.5	0

Sixty five patients were unemployed, employment status was unknown in one patient and 115 had some form of employment or were supported by a spouse. Ninety five percent of patients (172) had formal accommodation, 83% lived with family, relatives or acquaintances and 12% lived alone. Only six patients were from informal homes, two of these lived alone. The form of accommodation was unknown in 3 patients.

The referral base of the patients was from both private and state sectors; 104 from the private sector and 77 from the state sector, with one patient whose referral source could not be elicited from the file. From the state sector, 19 patients were referred by other units at Tara Hospital, 17 by Community clinics, 16 by Charlotte Maxeke Johannesburg Academic Hospital (CMJAH), 8 each by Chris Hani Baragwanath Hospital (CHBH) and Helen Joseph Hospital (HJH), 4 by Sterkfontein Hospital (SFH) and 4 by secondary level hospitals. Figure 3.1 depicts the distribution of state referrals.

Figure 3.2 illustrates the distribution of population group according to referral base. As can be seen, only eight patients were referred by CHBH, the largest hospital in Gauteng. Of these eight, six were Black African, one was Coloured and one was White. This is of interest, given the small number of Black African patients admitted to the unit in the two years studied, and the large number of Black African patients attended to at CHBH. Of the 22 Black Africans admitted, six were referred by CHBH, five by Community clinics, three by the private sector, two each by Tara Hospital, CMJAH and HJH and one each by Sterkfontein Hospital and a secondary level hospital.

Figure 3.1 Distribution of referrals from the state sector

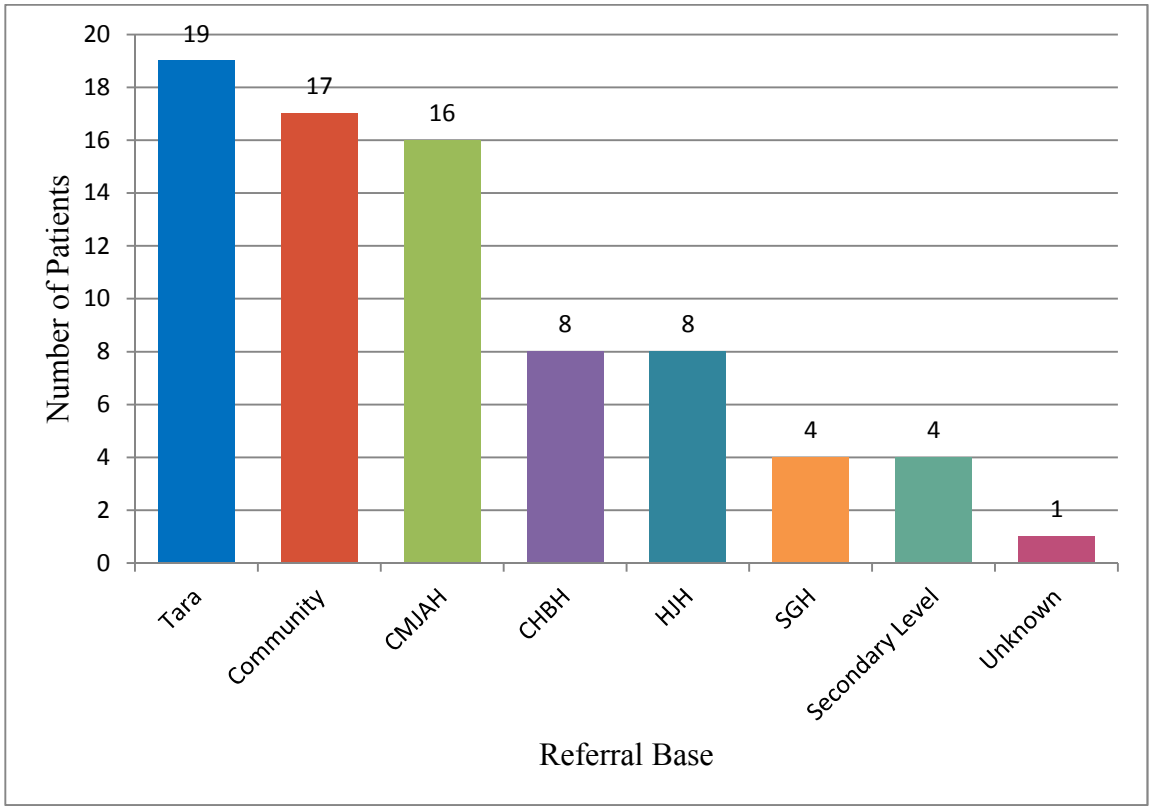
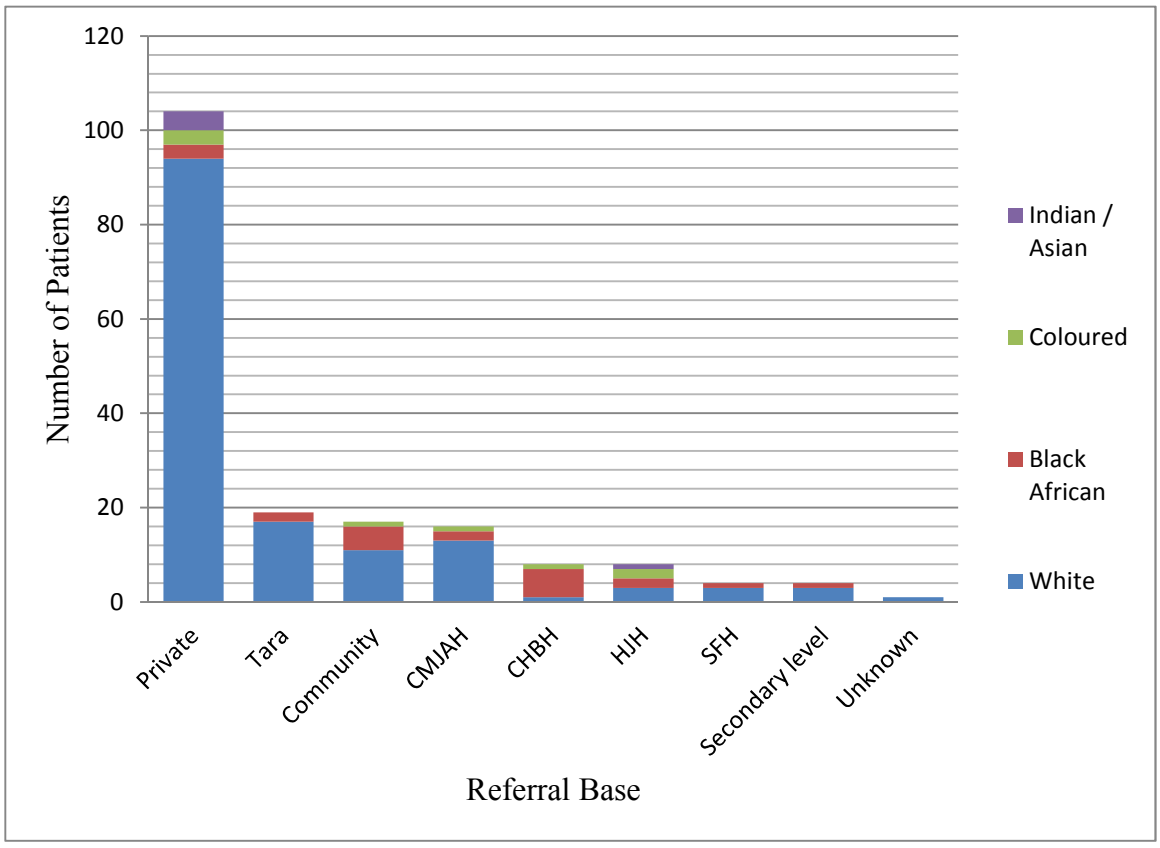


Figure 3.2 Distribution of population group according to referral base



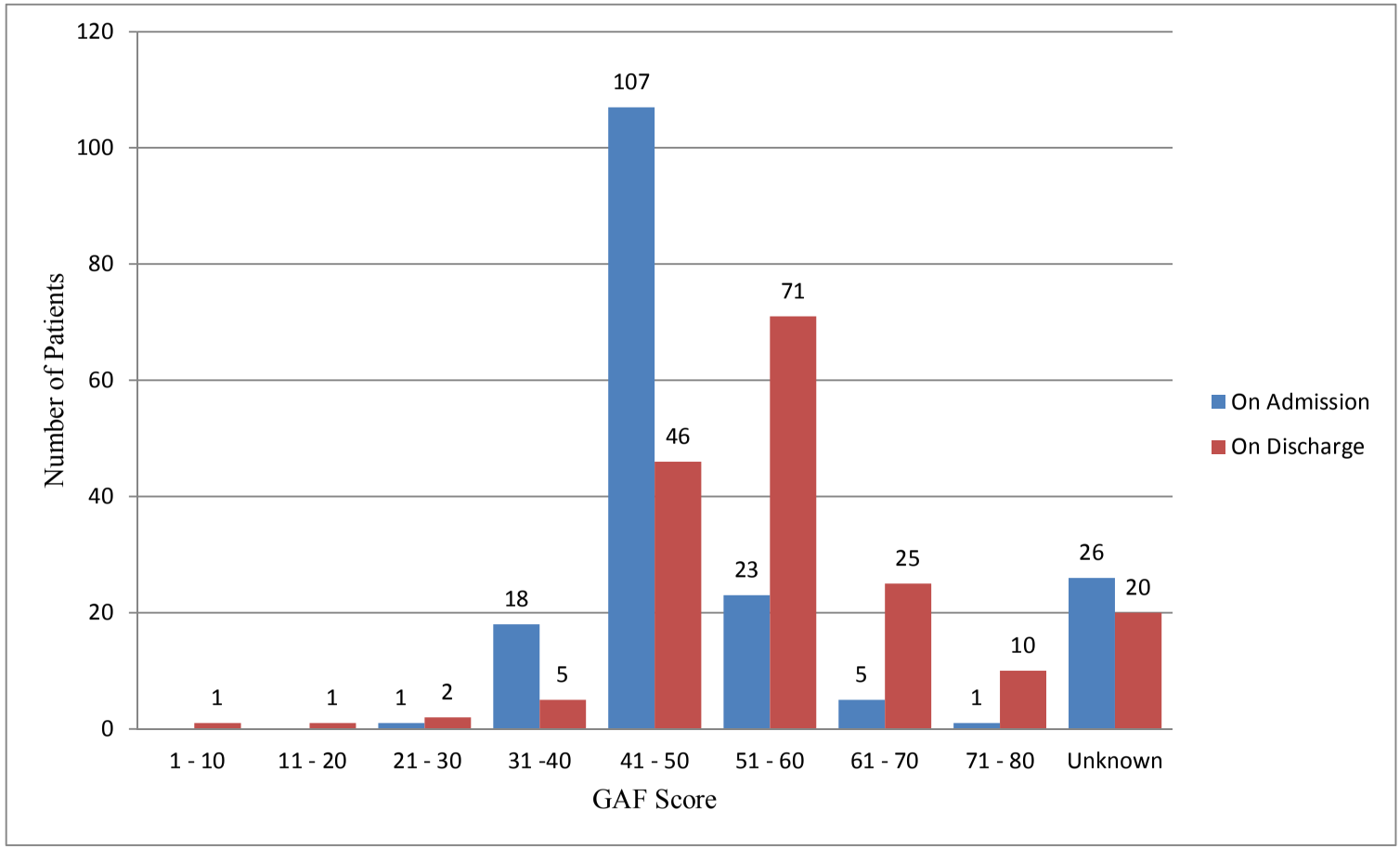
3.2 Details of the Admission

The average duration of hospital stay was 6.5 weeks. Thirty four patients (19.32%) refused hospital treatment at varying stages after admission. Another eleven were discharged prematurely and eight were transferred to Sterkfontein hospital as involuntary users. The premature discharges or transfer to Sterkfontein hospital occurred following a serious adverse incident.

Eighty one patients had a history of a suicide attempt in the two years preceding admission; for most the suicide attempt precipitated the admission. Fifty eight patients had a history of self-harming behaviour other than a suicide attempt at the time of referral or admission.

The majority of patients (107 patients; 59.12%) had a GAF score of 41 – 50 on admission to the unit. In 26 patients the admission GAF score was unknown, 23 had a GAF score of 51 – 60 and 18 a score of 31 – 40. On discharge there was a wider distribution of GAF scores with a general trend towards an improvement in comparison with the admission GAF. Seventy one patients (39.23%) now had a score of 51 – 60, twenty five (13.81%) a score of 61 – 70 and ten were given a score of 71 – 80. There were nine patients with scores of 31 – 40 or below, and in 20 patients the GAF score on discharge was not recorded. This data is depicted in Figures 3.2.

Figure 3.3 GAF score of patients on admission and on discharge



3.3 Adverse Incidents

A total of 41 adverse incidents occurred during the period studied. Twenty two of these were considered serious and analysed for possible associated variables. Incident reports were completed on the 19 'minor' incidents. These included 9 incidents of accidental injury to self, 9 incidents in which the patient suffered from an inconsequential 'faint' or 'blackout' and 1 in which the patient was allegedly assaulted by an intruder. The alleged assault was not confirmed; the patient refused further hospital treatment and was included in the analysis as an RHT.

Of note, there were no incident reports completed for the 22 serious adverse incidents. Recordings of these events are from clinical notes only. One patient, who was transferred to Sterkfontein hospital urgently, had no record of the reasons for transfer in the notes. However, this patient was included in the adverse incident group for analysis. The various serious adverse incidences and their consequences are depicted in Table 3.6.

Table 3.6 Adverse incidents and their consequences

Adverse Incident	Frequency	Consequences	Frequency
Suicide Attempt	1	Transfer to Sterkfontein	1
Suicidal	7	Transfer to Sterkfontein	6
		Suicide Obs in the Ward	1
Self-harming Behaviour	6	Containment in the Ward	3
		Premature Discharge	3
Substance Use	5	Premature Discharge	5
Verbal Aggression	2	Containment in the Ward	1
		Premature Discharge	1
Unknown	1	Transfer to Sterkfontein	1

3.4 Clinical Diagnosis

The diagnoses made and their frequencies are depicted in Table 3.7. Note that many patients had more than one Axis I diagnosis, sometimes due to lack of clarity as to which was the most fitting (i.e. as a differential diagnosis), sometimes due to co-morbidity. All diagnoses made were done so clinically. Although the clinical assessments were based on DSM IV criteria, the relevant criteria were not documented consistently. The figures in Table 3.7 add up to the total number of diagnoses made, including differential diagnoses, not the number of patients.

Mood disorders (diagnosed 175 times, in 135 patients) were the most frequently made Axis I diagnosis, with Major Depressive Disorder (MDD) being the most common of the mood disorders. There was high comorbidity amongst the mood disorders, with two mood disorders diagnosed in 26 patients and 3 in 7 patients. Co-morbidity was highest between MDD and a mood disorder due to a General Medical Condition (GMC),, which occurred together in eleven patients. MDD and dysthymia were also frequently co-morbid, occurring together in eight patients. A mood disorder due to substance use was diagnosed with at least one other possible mood disorder in 13 patients. Substance Use Disorder was the next most frequent diagnosis, being made in 98 patients. A diagnosis of an Anxiety Disorder was made in 38 patients. Other Axis I diagnoses made included Adjustment Disorder, Somatoform Disorders and Eating Disorders.

Of those patients with a Mood Disorder due to a GMC, fifteen were due to epilepsy (one of whom had a stroke and Parkinson's disease as well). The mood disorder was thought to be due to thyroid disease in 4 patients, and to HIV infection in 3 patients. A pituitary adenoma was recorded in 1 patient, as was encephalitis. In 1 patient the GMC was not

recorded, and remained unknown. An additional 2 patients admitted to the unit during the period studied were HIV positive. In these two patients the mental condition necessitating admission was not thought to be due to the HIV infection.

As the patients under study were admitted to a psychotherapy unit, the Axis II diagnosis is of significant interest. However, some patients were diagnosed with a precise personality disorder while others were diagnosed with either cluster A, B or C traits. As it was not possible to distinguish whether this was due to patient or clinician factors, for purposes of analysis, all patients were reduced to the relevant cluster. The frequencies with which these diagnoses were made are shown in Figure 3.4. A co-morbid diagnosis of two different clusters was made in 25 (13.8%) patients.

Table 3.7 Diagnoses noted on Axis I

Axis I Diagnosis		Frequency
Disorders first diagnosed in childhood or adolescence	Conduct Disorder	2
	Asperger's Syndrome	1
Cognitive Disorders	Dementia – unknown aetiology	2
Mental Disorder due to GMC	Mood Disorder due to a GMC	25
Substance-Related Disorders	Substance Use Disorder	98
	Substance Induced Mood Disorder	30
	Substance Induced Anxiety Disorder	2
Psychotic Disorders	Schizophrenia	1
Mood Disorders	Major Depressive Disorder	63
	Dysthymia	33
	Bipolar I Disorder	3
	Bipolar II Disorder	20
	Cyclothymia	1
Anxiety Disorders	Generalised Anxiety Disorder	24
	Panic Disorder	3
	Post-traumatic Stress Disorder	8
	Obsessive Compulsive Disorder	3
Somatoform Disorders	Conversion Disorder	9
Factitious Disorders	Factitious Disorder	2
Sexual Disorders	Gender Identity Disorder	2
Eating Disorders	Bulimia Nervosa	3
	Eating Disorder NOS	11
Impulse-Control Disorders	Intermittent Explosive Disorder	2
Adjustment Disorders	Adjustment Disorder – subtypes unknown	20
Conditions That May Be a Focus of Clinical Attention	Parent – Child Relational Problem	12
	Family Conflict	4
	Partner Relational Problem	15
	Sexual Abuse in Childhood	12
	Bereavement	9

Figure 3.4 Diagnoses according to cluster noted on Axis II

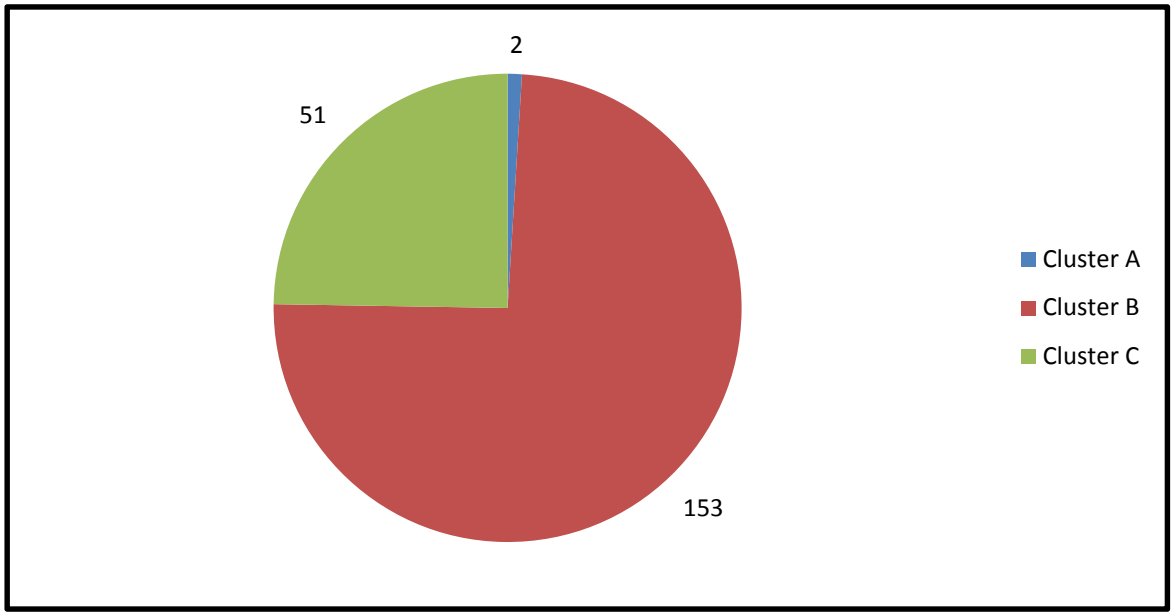


Figure 3.4 depicts the number of times each cluster was diagnosed. As noted above, co-morbidity between two clusters was noted in 25 patients; in all but 2 of these, cluster B and C were co-morbid. One of the patients with Cluster A traits had co-morbid Cluster C traits; the other was diagnosed with Schizoid PD, co-morbid with BPD. Of those patients with Cluster B traits, 110 were diagnosed with a BPD, 10 with Narcissistic PD and 1 with Histrionic PD. Twenty three patients were thought to have antisocial traits. Fifteen of the patients with Cluster C traits were diagnosed with Dependent PD, 9 with Avoidant PD and 1 with Obsessive Compulsive PD.

3.5 Psychopharmacology

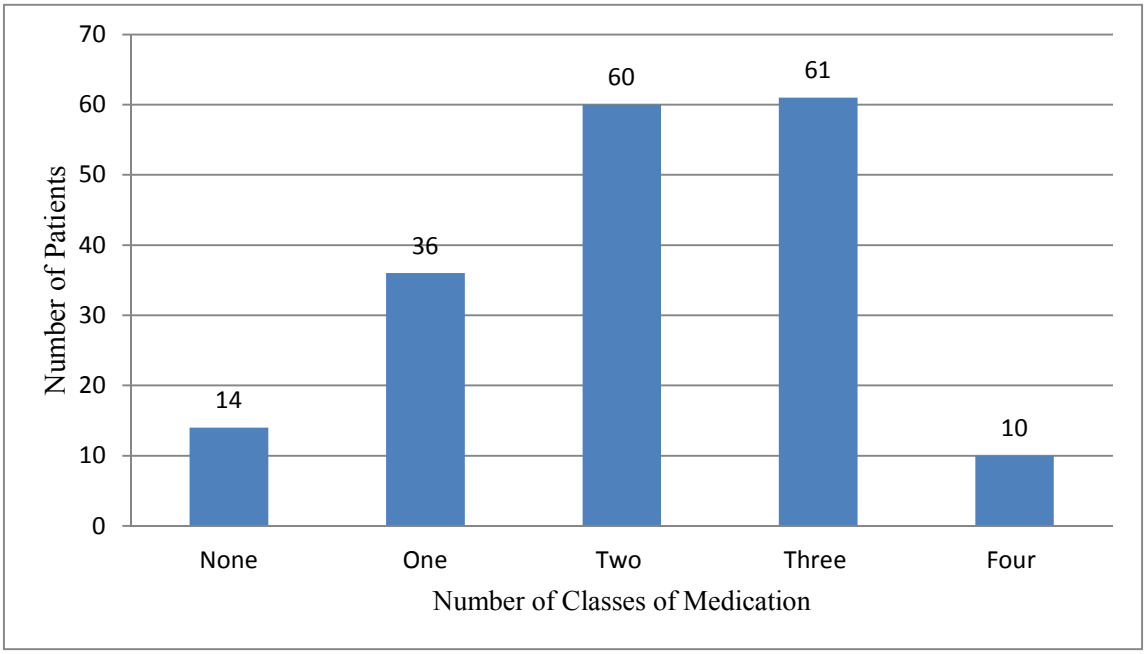
Apart from one patient, for whom the stimulant methylphenidate was prescribed, the psychotropic medication prescribed on discharge was from four classes: sedatives, antipsychotics, mood stabilisers and antidepressants. The medication used, per class, is shown in Table 3.8. One hundred and thirty one patients (72.4%) were treated with a combination of psychotropic drugs from at least two classes of medication. Figure 3.5

depicts the frequency with which medication from more than one class in an individual patient was prescribed.

Table 3.8 Psychotropic medication as prescribed by class

Class of Drug	Freq.	Comments	Freq.
Sedative	59	Benzodiazepine	38
		Non-benzodiazepine	21
Antipsychotic	92	Atypical antipsychotic	61
		Typical antipsychotic	24
		Typical depot	12
		Use of two antipsychotics	5
Mood Stabiliser	92	Lithium	15
		Anticonvulsant (alone or augmentation of lithium)	87
		Use of two anticonvulsants	17
Antidepressant	136	Tricyclic antidepressant	12
		Selective serotonin reuptake inhibitor	87
		Serotonin and noradrenaline reuptake inhibitor	44
		Serotonin reuptake inhibitor and 5HT antagonist	10
		Noradrenaline dopamine reuptake inhibitor	4
		Alpha 2 antagonist	6
		Use of two or more antidepressants	27

Figure 3.5 Distribution of patients prescribed from none to four classes of medication



3.6 Statistical Analysis

As stated above, in section 3.3, the completed incident reports all pertained to minor adverse incidents. No reports were completed for the serious adverse incidents. This meant that the secondary objective, which was to explore the relationship of serious adverse incidents to the staff: patient ratio could not be ascertained. Such an analysis depended on accurate recording of the date and time of the incident, as is required in an incident report. As such a record was not available, the analysis could not be performed.

The second primary objective of the study was to explore the relationship of adverse incidents and premature discharges with possible associated variables. The adverse incidents were divided into two groups – minor and serious. The minor adverse incidents were not included in the analysis as they included inconsequential incidents such as slipping on a wet floor. The serious adverse incidents and the (RHTs) are both

poor outcomes of the admission. The two groups of patients were mutually exclusive and so both were used in exploring for possible associated factors. Univariate analysis with Fisher's Exact Test and logistic regression was performed. This was followed by multivariate analysis with logistic regression to establish any significant relationships.

Univariate Analysis

Univariate analysis using Fisher's Exact Test was performed with each group in turn. The variables explored were as follows:

Gender

Population Group, with Coloured, Black African and Indian grouped as 'Black' versus those of European and Jewish descent as 'White'

Highest level of education (HLOE), divided into secondary vs tertiary education

Income, condensed into either present or absent

Marital Status, see 2.2 above

Referral Source, condensed into from either the state or private sector

GAF score on admission

Cluster A, B or C traits on Axis II

A history of substance use prior to admission

A suicide attempt prior to admission

The presence of self-harming behavior prior to admission

The age of the patient at their index psychiatric presentation, before or after 18 years

Any legal or boarding proceedings during the admission

Tables 3.9 and 3.10 depict the results of Fisher's Exact Test applied to the serious adverse events and RHT respectively. Regarding the adverse incidents a significant association ($p < 0.05$) was found with marital status ($p = 0.002$, with the association being with single people), substance use ($p = 0.023$) and recent self-harm ($p = 0.001$). A weak association was found with those patients who had a diagnosis of Cluster C traits on discharge ($p = 0.042$). Regarding RHT, no significant associations were found using Fisher's Exact Test.

Analysis of both adverse incidents and RHT was also performed using logistic regression. Using the logistic regression model, it was decided to only include those variables which were present on admission, and were not subjective. Therefore the GAF score on admission was excluded, as this score was formed subjectively and often by medical students. In addition, diagnostic categories on Axis II were omitted, as these diagnoses were made in the clinical setting without consistent documentation of criteria or reliability between clinicians. The results are shown in Tables 3.11 and 3.12.

Table 3.9 Analysis of adverse incidents using Fisher's Exact Test

Variable	No Adverse Incident	Adverse Incident	Fisher's exact p value
Gender	Male = 19 Female = 140	Male = 5 Female = 17	0.18
Population Group	Black = 30 White = 129	Black = 5 White = 17	0.773
HLOE	Tertiary = 57; Secondary = 101	Tertiary = 4; Secondary = 18	0.641
Income	Income = 102; No income = 56	Income = 13; No income = 9	0.641
Marital Status	Married = 47 Single = 77 Divorced = 33	Married = 3 Single = 19 Divorced = 0	0.002
Referral Source	Private = 92 State = 67	Private = 13 State = 8	0.816
Admission GAF Score	21-30 = 0 31-40 = 16 41-50 = 97 51-60 = 17 61-70 = 5 71-80 =1	21-30 = 1 31-40 = 2 41-50 = 10 51-60 = 23 61-70 = 0 71-80 = 0	0.064
Cluster A traits	Absent = 158 Present = 1	Absent = 21 Present = 1	0.229
Cluster B traits	Absent = 24 Present = 135	Absent = 4 Present = 18	0.753
Cluster C traits	Absent = 110 Present = 49	Absent = 20 Present = 2	0.042
Substance Use	Absent = 78 Present = 81	Absent = 5 Present = 17	0.023
Parasuicide in previous 2 years	Absent = 72 Present = 87	Absent = 9 Present = 13	0.82
Recent self-harm	Absent = 115 Present = 44	Absent = 8 Present = 14	0.001
Age at index presentation	<18yrs = 52 >18yrs = 104	<18yrs = 6 >18yrs = 16	0.636
Legal / boarding procedures	Absent = 154 Present = 5	Absent = 20 Present = 2	0.203

Table 3.10 Analysis of RHT using Fisher's Exact Test

Variable	No RHT	RHT	Fisher's exact p value
Gender	Male = 22 Female = 126	Male = 2 Female = 31	0.258
Population Group	Black = 31 White = 117	Black = 4 White = 29	0.332
HLOE	Tertiary = 51 Secondary = 97	Tertiary = 10 Secondary = 22	0.838
Income	Income = 95 No income = 53	Income = 20 No income = 12	0.842
Marital Status	Married = 40 Single = 81 Divorced = 25	Married = 10 Single = 15 Divorced = 8	0.479
Referral Source	Private = 86 State = 61	Private = 19 State = 14	1.000
Admission GAF Score	21-30 = 1 31-40 = 16 41-50 = 88 51-60 = 20 61-70 = 4 71-80 = 1	21-30 = 0 31-40 = 2 41-50 = 19 51-60 = 3 61-70 = 1 71-80 = 0	0.914
Cluster A traits	Absent = 146 Present = 2	Absent = 33 Present = 0	1.000
Cluster B traits	Absent = 24 Present = 124	Absent = 4 Present = 29	0.790
Cluster C traits	Absent = 106 Present = 42	Absent = 24 Present = 9	1.000
Substance Use	Absent = 64 Present = 84	Absent = 19 Present = 14	0.176
Parasuicide in preceding 2 years	Absent = 63 Present = 85	Absent = 18 Present = 15	0.247
Recent self-harm	Absent = 105 Present = 43	Absent = 18 Present = 15	0.098
Age at index presentation	<18yrs = 98 >18yrs = 49	<18yrs = 22 >18yrs = 9	0.833
Legal / boarding procedures	Absent = 144 Present = 4	Absent = 30 Present = 7	0.115

Table 3.11 Analysis of adverse incidents using logistic regression

Variable	Odds Ratio	Std. Error	z	P > z	95% Confidence Interval
Gender	0.46	0.26	-1.37	0.171	0.15 – 1.39
Population Group	1.26	0.69	0.43	0.668	0.43 – 3.70
HLOE	2.54	1.46	1.62	0.106	0.82 – 7.87
Income	1.26	0.59	0.50	0.618	0.51 – 3.13
Marital Status	0.90	0.31	-0.31	0.759	0.46 – 1.75
Referral Source	0.85	0.40	-0.35	0.724	0.33 – 2.15
Substance Use	3.27	1.74	2.23	0.026	1.15 – 9.30
Parasuicide in preceding 2 years	1.20	0.55	0.39	0.699	0.48 – 2.96
Recent self-harm	4.57	2.18	3.19	0.001	1.79 – 11.66
Age at index presentation	0.75	0.38	-0.57	0.571	0.28 – 2.03
Legal / boarding procedures	3.08	2.68	1.29	0.196	0.56 – 16.94

Table 3.12 Analysis of RHT using logistic regression

Variable	Odds Ratio	Std. Error	z	P > z	95% Confidence Interval
Gender	2.71	2.07	1.30	0.193	0.60 – 12.13
Population Group	0.52	0.30	-1.14	0.252	0.17 – 1.60
HLOE	1.16	0.48	0.35	0.728	0.51 – 2.63
Income	1.08	0.43	0.18	0.857	0.49 – 2.37
Marital Status	1.10	0.31	0.32	0.746	0.63 – 1.92
Referral Source	1.04	0.41	0.10	0.922	0.48 – 2.23
Substance Use	0.56	0.22	-1.48	0.138	0.26 – 1.20
Parasuicide in preceding 2 years	0.62	0.24	-1.24	0.213	0.29 – 1.32
Recent self-harm	2.03	0.80	1.80	0.071	0.94 – 4.40
Age at index presentation	0.82	0.35	-0.46	0.643	0.35 – 1.91
Legal / boarding procedures	3.6	2.84	1.62	0.105	0.77 – 16.92

Multivariate Analysis

Regarding the adverse incidents and RHTs, those variables with a cut-off of $p < 0.2$ were included in a multivariate analysis using logistic regression, with significance at the 0.05 level. The strongest relationship was that between adverse incidents and recent self-harm ($p = 0.003$, OR = 4.2; 95% CI = 1.6, 11.0). A weaker, but significant, association was

found between adverse incidents and substance use (p = 0.048, OR = 2.9; 95% CI = 1.0, 8.6).

As with adverse incidents, the strongest associations with RHT were found with recent self-harm and substance use. There was a significant relationship between RHT and recent self-harm (p = 0.046, OR = 2.2; 95% CI = 1.0, 4.9), but that with substance use (p = 0.088, OR = 0.5; 95% CI = 0.2, 1.1) was not significant. These data are depicted in Tables 3.13 and 3.14.

Table 3.13 Results of multivariate analysis and adverse incidents

Variable	Odds Ratio	Std. Error	z	P > z	95% Confidence Interval
Substance Use	2.94	1.60	1.98	0.048	1.01 – 8.56
Recent self-harm	4.24	2.05	2.99	0.003	1.64 – 10.95

Table 3.14 Results of multivariate analysis and RHT

Variable	Odds Ratio	Std. Error	z	P > z	95% Confidence Interval
Substance Use	0.51	0.20	-1.71	0.088	0.23 – 1.11
Recent self-harm	2.24	0.90	2.00	0.046	1.02 – 4.92

CHAPTER 4

DISCUSSION

4.1 Demographic and Clinical Profile

This study confirms that the gender difference, clinical diagnosis and level of comorbidity in the patients admitted to the Tara psychotherapy unit during the period studied are similar to other psychotherapeutic clinical populations.[2-4,9,10] Single women with Borderline PD predominated. As with the patients admitted to the psychotherapy unit at Valkenberg hospital,[12] the level of education was high relative to the general population of Gauteng. In this sample all of the patients had at least a secondary school education and a third (61) had received a tertiary level of education. This discrepancy may indicate that patients with a higher education are more likely to seek help for relationship and other problems secondary to the presence of a PD, than those with a lesser education; or that they are more likely to be referred and admitted for inpatient psychotherapy. It could also be a result of those with a higher education having easier access to psychiatric care. Most of the patients (63.5%) had an income, either from their own employment or from support by a partner.

There was high comorbidity with Axis I disorders, most commonly mood disorders, especially major depressive disorder, substance use disorders and anxiety disorders. In addition, a high usage of polypharmacy in the management of the patients is shown. As discussed in the literature review, polypharmacy is common in clinical practice in the management of PDs, but is not recommended.[2,8,20,29] The high use of medication within this unit may be ascribed to the high co-morbidity between Axis I and Axis II disorders, to the severity of the symptoms associated with the PD, or to the need for containment with psychotropics due to the presence of a crisis.

While there is a general positive trend in the GAF score on discharge as compared to that on admission, it is not possible to comment on the long term outcome of the psychotherapy programme from this study. The improvement in GAF score indicates an immediate benefit from the programme while the patients are still in the structured and supportive environment of the ward. However, it is not known if the level of functioning remains improved once in their home environment.

Of interest, the demographic profile of the study population differs markedly from the distribution of population in Gauteng according to the 2001 Census. Black African patients only formed 12.2% of the study population, but form 73.8% of the Gauteng population. This raises many questions regarding the prevalence and treatment of PDs in South Africa, particularly in relation to population group.

Firstly, little is known about the prevalence of PDs in the Black African population, but it is possible that it is similar to that in other population groups. Thuo et al[6] postulate that there may be a lower prevalence of PDs in the general population of Kenya. However, their finding of PDs in 20% of psychiatric inpatients is similar to the figures cited by Clarkin et al[4] and Gunderson.[2] Clarkin et al also cite a prevalence of BPD in the community of 1.3% - 1.4%,[3] similar to the 1.5% for cluster B PDs in the South African population found by Suliman et al.[5] Although their study sample was representative of the South African population, Suliman et al do not document any differences in prevalence or cluster according to population group. Other SASH studies that did analyse for differences in ethnicity and mental illness found no significant differences between ethnic groups regarding the prevalence of anxiety, depressive or substance use disorders,[44] and an equal incidence of non-fatal suicide attempts between black and

white South Africans.[45] Neither of these papers comment on the presence of personality disorder in the conditions studied, and ethnic similarities regarding the prevalence of PDs cannot be inferred.

Secondly, the 12 month treatment rate of PDs in South Africa is lower than that for common mental disorders; 19.9% compared with approximately 25%.[5,46] Suliman et al suggest that this may be related to poor service availability, a lack of awareness or other clinical and demographic factors.[5] However, help-seeking behaviour may also contribute to the low rate. In addition, different patterns in seeking treatment amongst the different population groups may result in discrepancies in the use of services. Black Africans have been found to access help from traditional healers more readily than from formal mental health services for common mental disorders.[46] This could also be true for problems related to PDs, especially as such problems are often those of relationship difficulties, for which Western medicine may not be perceived to be useful. Alternatively, it is possible that differing cultural attitudes to the problematic behaviour associated with PDs allows for greater tolerance, or greater stigmatisation, amongst Black Africans, resulting in reduced help seeking. Differing priorities amongst the different ethnic groups may also influence treatment seeking, with poverty, unemployment and HIV infection being more common in the lives of Black South Africans and dwarfing the difficulties related to PD.

Thirdly, the study population had a generally higher level of education than that of the Gauteng population. This may reflect the selection procedure for the unit and the need for greater articulation in a psychotherapy programme, but may inadvertently exclude Black Africans either due to language barriers, or lower levels of education related to

disadvantaged circumstances. It also raises the question of a relationship between intolerance of problematic experiences, help seeking and education level.

Fourthly, Tara hospital is situated within the historically white northern suburbs of Johannesburg, where there is a poor public transport system. Distance and cost of transport may cause unwillingness amongst Black African patients to be admitted, or a perception amongst referring psychiatrists of Tara hospital being unsuitable due to location.

Finally, in a systematic review of PDs and ethnicity, McGilloway et al[47] suggest that PDs may be overlooked in the routine psychiatric treatment of black vs white patients in the US and UK. They also comment on possible racial bias and pathways into care, resulting in reduced entry into specialist care and reduced treatment for black people with PD. These studies were from developed countries in which black people form a minority group, and so may not be generalized to South Africa. However, the possibility of clinician bias in assessing and referring differing population groups remains.

4.2 Adverse Incidents and Premature Discharges

The adverse incidents and RHTs may indicate a negative outcome of the admission, or they may indicate that the admission is unsuitable for those individual patients at that time in the course of their illness. The adverse incidents are themselves a manifestation of the impulsivity and self-destructive behaviour characteristic of BPD. Refusing hospital treatment may also be a result of poor self-regulation and a difficulty in appraising the long-term consequences of one's behaviour. Hence both represent personality traits which the programme hopes to ameliorate.

After excluding subjective and potentially unreliable variables, recent self-harming behaviour was found to be significantly associated with the occurrence of adverse incidents (p=0.003) and RHT (p=0.046). It is difficult to interpret this as the role of self-harming behaviour in severity of the BPD and in influencing treatment outcome is poorly understood. Chiesa et al[36] compared a group of patients with PD and self-injury to another without self-injury. They also studied the effect of self-harming behaviour on treatment outcome in both a long-term residential and a specialised community based or step-down programme. The presence of self-injury was associated with greater severity of psychopathology. These patients had a higher incidence of substance use and Axis I co-morbidity, more frequent suicide attempts and acute hospitalisations and a history of greater disruption to early attachment relationships. In comparing the treatment settings, it was found that those with patients with self-harming behaviour showed significant improvement in community based care in both psychiatric symptomatology and episodes of self-harm. With long term residential care those who self-harmed did not improve at all over a 2 year period. By contrast patients with no self-harming behaviour showed marginally greater improvement with residential care, compared with community care. In community based care, patients who did not self-harm attained the same level of improvement as those with self-injury, but at a faster rate.

Chiesa et al, in the same article, postulate that the emotional dysregulation of patients with self-harming behaviour may be worsened by the complex, structured inpatient setting, with its intense interpersonal relationships and pressure to improve clinically. Outpatient and community settings appear to be more flexible and tolerant of the patient's behaviour. They offer repeated containment, with less supervision between therapy sessions, and less attention to how the individual's behaviour is affecting other

clients. This appears to be beneficial for this sub-group of patients. Other factors may be that the psychoanalytic programme at the institute studied (both for residential and outpatient programmes) may not address self-harming behaviour as well as other therapies, such as DBT. In addition, there is no specific protocol for the management of self-harming behaviour in their residential programme. The authors suggest that such protocols be researched and possibly included in inpatient care.

Thus the association of adverse incidents and RHT with recent self-harming behaviour in the Tara population may indicate that this sub-group of patients would be more suitably treated in specialised community or outpatient programmes. It may also represent a need for greater awareness of the needs of these patients on admission and the development of specific protocols for inpatient management.

The association of substance use with adverse incidents was less significant than that of self-harming behaviour. This was contrary to expectations that substance use may interfere with the patient's participation in the programme. However, the data collection and analysis does not differentiate between those patients actively using substances at the time of admission and those who have undergone a period of rehabilitation prior to admission. It may be that the level of significance has been influenced by those patients who had been through a rehabilitation programme and were not actively using substances before being admitted.

4.3 Limitations of the Study

This study shares the limitations of all retrospective studies in which data is drawn from clinical files. As mentioned in the results and discussion, there was no standardization of clinical assessment and diagnosis, especially as these were performed by rotating

psychiatric registrars and psychology interns under consultant supervision. In addition, the longer term outcome of the patients could not be evaluated. Although the entire sample was of a reasonable size, the sizes of the serious adverse incident (22 patients) and RHT (34 patients) samples were small, limiting the power of the analysis.

CHAPTER 5

CONCLUSION

5.1 Demographic Profile and Adverse Incidents

This study highlights the discrepancy between the demographic profile of the patients admitted to the Tara hospital psychotherapy unit in 2007 and 2008 and that of the general Gauteng population. It suggests a need for further research and understanding of PDs in the Black African population. In addition, a need for evaluation of referral practices and availability of resources is implicated.

Serious adverse incidents and RHTs occurred in 30.9% of patients. The most significant association found was that between adverse incidents and self-harming behaviour prior to admission. In addition, there was a weakly significant association between RHTs and recent self-harm; thus self-harming behaviour was associated with both forms of negative outcome. This research proposes a need for increased awareness of patients with self-harming behaviour, both on selection for the programme and during admission.

5.2 Reporting of Adverse Incidents

All information regarding the serious adverse incidents was drawn from the clinical notes, as there were no completed incident reports. The detail within the clinical files varied widely. By contrast, reports were completed diligently for minor events which may be perceived as nursing related. This is a grave concern, as serious adverse events may be associated with litigation, and a lack of documentation in this regard may increase the liability of the Department of Health in this regard. As explained in section 3.5, there was no exploration of a relationship with staff: patient ratio due to the lack of incident reports for the serious events. The occurrence of RHTs was taken from the admission and discharge register, as there was no other record of these elsewhere. There

is a need for more objective records and reports to be kept on a routine basis, both for medicolegal reasons and to assist in future evaluation of the service offered by the unit.

5.3 Recommendations

From the literature review, results of this study and the discussion several recommendations may be made. Firstly, there is a need for more information regarding the prevalence and impact of PDs in South Africa in order to develop services appropriately. This calls for more research, not only on prevalence rates in different population groups, but also on the associations of the presence of a PD, especially a cluster B PD, with other aspects of mental and general health as well as socio-economic status. For example, as BPD is associated with impulsivity, unstable relationships and substance use, it might be expected to increase the risk of HIV infection, poor adherence to anti-retroviral treatment, worsen family disruption and increase poverty. Such research would inform the delivery of psychiatric, general health and social development services.

Regarding service development, it appears from the literature that patients with BPD access and remain in community based care with long term improvement in their symptomatology. Short term acute hospital admissions when in 'crisis' are still required and certain patients may benefit from referral to structured, specialised inpatient care. Community based care appears to be the most cost-effective[35] and should be the predominant treatment setting. It is therefore suggested that specialised care in the form of individual and group therapy be made available in the community clinics where there is evidence of need, while maintaining the existing acute hospital and specialised inpatient services such as the psychotherapeutic unit at Tara. The therapy programmes

offered at community clinics should ideally be BPD specific, e.g. DBT, as such therapies have been consistently shown to be superior to general psychiatric care. Community based psychiatric care should be enhanced for the management of those patients with self-harming behaviour in particular.

The demographic profile of the patients admitted to Tara hospital in this study highlights a need for research into the referral patterns by psychiatrists, as well as patient preference for treatment, with regards to patients with PDs. It appears that there is a need for general psychiatrists to be more sensitive to the presence of PD in non-white population groups. In addition, there is possibly a need for general psychiatrists, particularly in the state sector, to have a less nihilistic view regarding the treatment of BPD. It is therefore recommended that such awareness be raised and that patients are offered referral to specialised services more readily. Greater skills development, perhaps with changes to training programmes of general psychiatrists, in managing BPD may also be beneficial, especially in areas with poor psychotherapeutic resources.

Regarding the inpatient psychotherapeutic programme, there is clearly a need for more careful record-keeping of adverse incidents and premature discharges. This is both for possible litigious reasons and for monitoring of the service and patient care. It is also recommended that patients who are actively self-harming at the time of referral be assessed for admission with caution. It may be preferable for these patients to attend a specialised outpatient therapy programme rather than to participate in an intensive and somewhat pressurized inpatient therapeutic schedule.

REFERENCES

References

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. Text revision. Washington DC, American Psychiatric Association 2000.

2. Gunderson JG. Borderline personality disorder. N Engl J Med. 2011;364(21):2037-2042.

3. Clarkin JF, Levy KN, Lenzenweger MF, Kernberg OF. Evaluating three treatments for borderline personality disorder: a multiwave study. Am J Psychiatry. 2007;164(6):922-928.

4. Clarkin JF, Levy KN, Lenzenweger MF, Kernberg OF. The Personality Disorders Institute / Borderline Personality Disorder Research Foundation randomized control trial for borderline personality disorder: rationale, methods, and patient characteristics. J Pers Disord. 2004;18(1):52-72.

5. Suliman S, Stein DJ, Williams DR, Seedat S. DSM-IV personality disorders and their Axis I correlates in the South African population. Psychopathology. 2008;41(6):356-364.

6. Thuo J, Ndetei DM, Maru H, Kuria M. The prevalence of personality disorders in a Kenyan inpatient sample. J Pers Disord. 2008;22(2):217-220.

7. Stein DJ. Borderline personality disorder: toward integration. CNS Spectr. 2009;14(7):352-356.

8. Zanarini MC, Frankenburg FR. The essential nature of borderline psychopathology. J Pers Disord. 2007;21(5):518-535.

9. Skodol AE, Gunderson JG, Shea MT, McGlashan TH, Morey LC, Sanislow CA, et al. The Collaborative Longitudinal Personality Disorders Study (CLPS): overview and implications. J Pers Disord. 2005;19(5):487-504.

10. Linehan MM, Comtois KA, Murray AM, Brown MZ, Gallop RJ, Heard HL, et al. Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. Arch Gen Psychiatry. 2006;63(7):757-766.

11. Dedovic K, Duchesne A, Andrews J, Engert V, Pruessner JC. The brain and the stress axis: the neural correlates of cortisol regulation in response to stress. Neuroimage. 2009;47(3):864-871

12. Joska JA, Flisher AJ. Needs and services at an inpatient psychotherapy unit. Afr J Psychiatry. 2007;10:149-156.

13. Jackson HJ, Burgess PM. Personality disorders in the community: results from the Australian National Survey of Mental Health and Wellbeing Part II. Relationships between personality disorders, Axis I mental disorders and physical conditions with disability and health consultation. Soc Psychiatry Psychiatr Epidemiol. 2002;37(6):251-260.

14. Zanarini MC, Frankenburg FR, Hennen J, Bradford Reich D, Silk KR. Axis I comorbidity in patients with borderline personality disorder: 6-year follow-up and prediction of time to remission. Am J Psychiatry. 2004;161(11):2108-2114.

15. Newton-Howes G, Tyrer P, Johnson T. Personality disorder and the outcome of depression: meta-analysis of published studies. Br J Psychiatry. 2006;188(1):13-20.

16. Newton-Howes G, Tyrer P, Anagnostakis K, Cooper S, Bowden-Jones O, Weaver T. The prevalence of personality disorder, its comorbidity with mental state disorders, and its clinical significance in community mental health teams. Soc Psychiatry Psychiatr Epidemiol. 2010;45(4):453-460.

17. Bateman AW, Fonagy P. Effectiveness of psychotherapeutic treatment of personality disorder. Br J Psychiatry. 2000;177(2):138-143.

18. Fonagy P, Bateman AW. Progress in the treatment of borderline personality disorder (Editorial). Br J Psychiatry. 2006;188(1):1-3.

19. Gunderson JG, Stout RL, McGlashan TH, Shea MT, Morey LC, Grilo CM et al. Ten-year course of borderline personality disorder: psychopathology and function from the Collaborative Longitudinal Personality Disorders Study. Arch Gen Psychiatry 2011;68(8):827-837.

20. Zanarini MC, Frankenburg FR, Hennen J, Riech DB, Silk KR. The Mclean Study of Adult Development (MSAD): overview and implications. J Pers Disord. 2005;19(5):505-523.

21. Zanarini MC, Frankenburg FR, Reich DB, Fitzmaurice G. Time to attainment of recovery from borderline personality disorder and stability of recovery: a 10-year prospective follow-up study. Am J Psychiatry. 2010;167(6):663-667.

22. Zanarini MC, Frankenburg FR, Hennen J, Silk KR. The longitudinal course of borderline psychopathology: six-year prospective follow-up of the

phenomenology of borderline personality disorder. Am J Psychiatry. 2003;160(2):274-283.

23. Bohus M, Haaf B, Simms T, Limberger MF, Schmahl C, Unckel C et al. Effectiveness of inpatient dialectical behavioral therapy for borderline personality disorder: a controlled trial. Behav Res Ther. 2004;42(5):487-499.

24. Kröger C, Schweiger U, Sipos V, Arnold R, Kahl KG, Schunert T et al. Effectiveness of dialectical behavior therapy for borderline personality disorder in an inpatient setting. Behav ResTher. 2006;44(8):1211-1217.

25. Chiesa M, Fonagy P, Holmes J. Six-year follow-up of three treatment programs to personality disorder. J Pers Disord. 2006;20(5):493-509.

26. Bateman A, Fonagy P. 8-year follow-up of patients treated for borderline personality disorder: mentalization-based treatment versus treatment as usual. Am J Psychiatry. 2008;165(5):631-638.

27. Lieb K, Völlm B, Rücker G, Timmer A, Stoffers JM. Pharmacotherapy for borderline personality disorder: Cochrane systematic review of randomised trials. Br J Psychiatry. 2010;196(1):4-12

28. Ingenhoven T, Lafay P, Rinne T, Passchier J, Duivenvoorden H. Effectiveness of pharmacotherapy for severe personality disorders: meta-analyses of randomized controlled trials. J Clin Psychiatry. 2010;71(1):14-25.

29. National Institute for Health and Clinical Excellence. Borderline personality disorder: treatment and management. London, NICE 2009. www.nice.org.uk.

30. Frankenburg FR, Zanarini MC. Personality disorders and medical comorbidity. Curr Opin Psychiatry. 2006;19(4):428-31.

31. Van Asselt ADI, Dirksen CD, Arntz A, Severens JL. The cost of borderline personality disorder: societal cost of illness in BPD-patients. Eur Psychiatry. 2007;22(6):354-361.

32. Bateman A, Fonagy P. Health service utilization costs for borderline personality disorder patients treated with psychoanalytically oriented partial hospitalization versus general psychiatric care. Am J Psychiatry. 2003;160(1):169-171.

33. Bartak A, Soeteman DI, Verheul R, Busschbach JJ. Strengthening the status of psychotherapy for personality disorders: an integrated perspective on effects and costs. Can J Psychiatry. 2007;52(12):803-810.

34. Bartak A, Andrea H, Spreeuwenberg M, Ziegler UM, Dekker J, Rossum BV et al. Effectiveness of outpatient, day hospital and inpatient psychotherapeutic treatment for patients with cluster B personality disorders. Psychother Psychosom. 2011;80(1):28-38.

35. Chiesa M, Fonagy P, Gordon J. Community based psychodynamic treatment program for severe personality disorders: clinical description and naturalistic evaluation. J Psychiatr Pract. 2009;15(1):12-24.

36. Chiesa M, Sharp R, Fonagy P. Clinical associations of deliberate self-injury and its impact on the outcome of community-based and long-term inpatient treatment for personality disorder. Psychother Psychosom. 2011;80(2):100-109.

37. Hörz S, Zanarini MC, Frankenburg FR, Reich DB, Fitzmaurice G. Ten-year use of mental health services by patients with borderline personality disorder and with other Axis II disorders. Psychiatr Serv. 2010;61(6):612-616.

38. Prince M, Patel V, Saxena S, Maj M, Maselko J, Phillips MR, Rahman A. No health without mental health. Lancet 2007;370(9590):859-77.

39. Okasha A. Mental health in Africa: the role of the WPA. World Psychiatry 2002;1(1):32-35.

40. Lund C. Mental health in Africa: Findings from the Mental Health and Poverty Project (editorial). Int Rev Psychiatry. 2010;22(6):547-549.

41. Lund C, De Silva M, Plagerson S, Cooper S, Chisholm D, Das J et al. Poverty and mental disorders: breaking the cycle in low-income and middle-income countries. Lancet. 2011;378:1502-1514.

42. Draper CE, Lund C, Kleintjies S, Funk M, Omar M, Flischer AJ and the MHaPP Research Programme Consortium. Mental health policy in South Africa: development process and content. Health Policy Plan 2009;24:342-356.

43. Petersen I, Lund C. Mental health service delivery in South Africa from 2000 to 2010: One step forward, one step back. S Afr Med J. 2011;101:751-757

44. Williams DR, Herman A, Stein DJ, Heering SG, Jackson PB, Moomal H et al. Twelve-month mental disorders in South Africa: prevalence, service use and demographic correlates in the population-based South African Stress and Health Study. Psychol Med. 2008;38(2):211-220.

45. Joe S, Stein DJ, Seedat S, Herman A, Williams DR. Prevalence and correlates of non-fatal suicidal behaviour among South Africans. Br J Psychiatry. 2008;192(4):310-311.

46. Seedat S, Williams DR, Herman AA, Moomal H, Williams SL, Jackson PB et al. Mental health service use among South Africans for mood, anxiety and substance use disorders. S Afr Med J. 2009;99(5 Pt 2):367-373.

47. McGilloway A, Hall RE, Lee T, Bhui KS. A systematic review of personality disorder, race and ethnicity: prevalence, aetiology and treatment. BMC Psychiatry 2010;11(10):33-46.