SCHIZOAFFECTIVE DISORDER IN AN ACUTE PSYCHIATRIC UNIT:

PROFILE OF USERS AND AGREEMENT OF DIAGNOSIS WITH OPERATIONAL CRITERIA (OPCRIT)

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfillment of the requirements for the degree of

Master of Medicine in the branch of Psychiatry.

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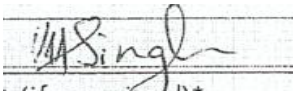
Declaration

I, Ryola Rangi Singh, hereby declare that this research report is my own work. It is being submitted for the degree of Master of Medicine in the branch of Psychiatry, at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.



R. R. Singh

____5____day of ___September___ 2013

Dedication

I dedicate this work to my parents who have always believed in me and encouraged me to aim high, work hard, achieve my goals and to never stop learning.

I also dedicate this to my husband who has been a great source of inspiration, comfort and support and who has provided valuable assistance and feedback on this project.

Abstract

Introduction:

Schizoaffective Disorder remains poorly understood. Experts still disagree on whether it is a discrete disorder; whether it exists on a spectrum between Bipolar Disorder and Schizophrenia or whether it even exists.

Objectives:

The study aimed to describe the demographic, clinical and treatment profile of mental health care users (MHCUs) diagnosed with Schizoaffective Disorder at a regional hospital (Helen Joseph Hospital) in Johannesburg, Gauteng. It also aimed to determine the degree of agreement between the clinicians' diagnosis and Operational Criteria (OPCRIT).

Methods:

All MHCUs at Helen Joseph Hospital psychiatric unit with a discharge diagnosis of Schizoaffective Disorder between January 2004 and December 2010 were included. The demographic, clinical and treatment profiles as well as data required for OPCRIT were extracted from hospital records and discharge summaries.

Results:

The main findings were that most MHCUs diagnosed with Schizoaffective Disorder were female with a mean age of illness onset of 25 years; had impaired social, occupational and interpersonal functioning; had a family history of mood disorders; were non-adherent on admission and were treated with at least 1 antipsychotic and 1 mood stabiliser. Also, there was no agreement between the clinicians' diagnosis and OPCRIT.

Conclusion:

More rigorous research is needed to accurately describe the profile of MHCUs diagnosed with Schizoaffective Disorder to improve understanding and management of their condition.

Acknowledgements

With grateful thanks to my supervisor, Professor U. Subramaney for her unwavering support, patience and encouragement; simple, clear and concise guidance as well as imparting invaluable lessons on life and learning.

I am also very appreciative of Professor A.B.R. Janse van Rensburg's assistance in developing my protocol; identifying mental health care users for this study and for his fervor that helped initiate this process.

Lastly, I am thankful to Professor E. Libhaber for all her time and effort in helping me with the statistical analysis.

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NOMENCLATURE

APA: American Psychiatric Association

DSM: Diagnostic and Statistical Manual of Mental Disorders

DSM IV TR: Diagnostic and Statistical Manual of Mental Disorders Fourth Edition, Text Revision

HREC: Human Research and Ethics Committee

ICD: International Classification of Diseases

MEMS: Medication Event Monitoring System

MHCUs: Mental Health Care Users

NICE: National Institute for Health and Clinical Excellence

OPCRIT: Operational Criteria

Psychosis NOS: Psychosis Not Otherwise Specified

RDC: Research Diagnostic Criteria

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

In 1933, Jacob Kasanin reported on 9 cases, which he personally studied at the Boston Psychopathic Hospital, that were all given a diagnosis of Dementia Praecox, but who seemed quite atypical (1). These mental health care users (MHCUs) were fairly young men and women who were in good physical health, had average to superior intelligence and were well-integrated into society. They presented with sudden onset of both “schizophrenic” and affective symptoms following emotional and environmental stressors. Most cases had a vague history of a previous episode in adolescence with complete recovery. The psychotic symptoms were not very bizarre and had little passivity phenomena. The psychosis lasted a few weeks to a few months and was followed by recovery. Kasanin described these MHCUs as having “acute schizoaffective psychoses” and suggested that they were an intermediate group, with their outcome being better than Schizophrenia and worse than mood disorders.

In 1952, Schizoaffective Disorder became well recognised after it was incorporated in the Diagnostic and Statistical Manual of Mental Disorders I (DSM I) (2). In the DSM I and the DSM II it was recognised as a subtype of Schizophrenia (3). In the DSM III, it was placed in the category of Psychotic Disorders Not Elsewhere Specified (4). In the DSM III-R the disorder was placed back in the category of Schizophrenia and other psychotic disorders, where it has remained (5). The current definition of Schizoaffective Disorder according to DSM IV-TR requires, “An uninterrupted period of illness during which, at some time, there is a Major Depressive Episode, a Manic Episode, or a Mixed Episode concurrent with symptoms that meet Criterion A for Schizophrenia. The Major Depressive Episode must include Criterion A1: depressed mood. During the same period of illness, there have been delusions or hallucinations for at least 2 weeks in the absence of prominent mood symptoms. Symptoms that meet criteria for a mood episode are present for a substantial portion of the total duration of the active and

residual periods of the illness. The disturbance is not due to the direct physiological effects of a substance (e.g. a drug of abuse, a medication) or a general medical condition." (6).

As clinicians and scientists we should aspire to care for and treat our mental health care users as effectively as possible, guided by the evidence to support our practice behaviour. For this to occur, we are obligated to formulate a stable and valid diagnosis for which we can provide treatment. How then, does assigning a diagnosis of Schizoaffective Disorder benefit our users? This diagnosis has always been under scrutiny for a multitude of reasons. More than seventy five years after the term 'Schizoaffective Disorder' was coined by Kasanin, it remains a poorly understood condition with experts still unable to reach a consensus regarding the place for Schizoaffective Disorder in psychiatry.

The acute psychiatric unit at Helen Joseph Hospital is the point of entry for most mental health care users that live in that catchment area. It provides assessment, care, treatment and rehabilitation of these MHCUs and is thus believed to be representative of other acute psychiatric units in Johannesburg. It is hoped that this research will provide a local perspective and shed some clarity on the diagnosis and profile of mental health care users deemed to have Schizoaffective Disorder.

CHAPTER 2

LITERATURE REVIEW

2.0 LITERATURE REVIEW

2.1 A Continuum between Schizophrenia and Mood Disorders

Marneros supports the view that Schizoaffective Disorder occupies a position between Schizophrenia and Mood Disorders especially with regard to prognosis, premorbid and socio-demographic variables (7). He also suggests that 2 subtypes of the disorder need to be distinguished which include longitudinal aspects in the definition (8). He describes a “concurrent” type in which people have only a coincidence of schizophrenic and affective symptoms; and a “sequential” type under a longitudinal aspect with a symptom change between different episodes.

In a recent systematic review that compared Schizoaffective Disorder with Schizophrenia and Mood Disorders, Cheniaux et al attempted to ascertain the relationship of Schizoaffective Disorder to Schizophrenia and Mood Disorders and whether it could be classified as a discrete disorder (9). Following a search throughout MEDLINE, psychINFO, Cochrane Library, SCIELO and LILACS databases, 155 articles were appraised for this study. Several variables were examined including demographics, family morbidity, symptoms, dexamethasone suppression tests and neuro-imaging amongst others. The literature did not support Schizoaffective Disorder being classified as a separate disorder. They hypothesised that Schizoaffective Disorder is possibly a heterogeneous group of both Schizophrenia and Bipolar Disorder or in the middle of a continuum between the two disorders. Given that no clear distinction could be made between the three disorders, studies that included a comparison between Schizophrenia and Mood Disorders may have been useful.

2.2 Schizoaffective Disorder as a Psychotic Mood Disorder

Adding to the controversy, Lake and Hurwitz, in their review concluded that Schizoaffective Disorders are actually psychotic mood disorders and Schizoaffective Disorder as a discrete entity does not exist (10). Their review looked at studies from 1949 to 2005 comparing Schizoaffective Disorder with Schizophrenia and Mood Disorders and studies that compared Schizophrenia with psychotic mood disorders - 256 such articles were found. Articles were assigned to five different categories based on the conclusions i.e. Schizoaffective Disorder is similar to Schizophrenia; it is a heterogeneous disorder existing on a continuum between Schizophrenia and Mood Disorders; it is more similar to Mood Disorders; it is a separate disease and an inconclusive or ambivalent conclusion. The review considers the possibility that Schizophrenia, Schizoaffective Disorder and psychotic mood disorders are actually one disorder i.e. a psychotic mood disorder. There is much evidence in the review to support this. Firstly, "schizophrenic symptoms" actually mean psychotic symptoms which are present in all three disorders. The use of clinical characteristics to distinguish these disorders has not proven useful. They reported on one study that found that all three disorders share the same genetic susceptibility loci. Also, 8 of 11 chromosome loci were found to overlap for Schizophrenia and Bipolar Disorder. It is worth noting however, that there may have been bias in the interpretation of the study conclusions and in the authors' assigning of articles to specific categories.

2.3 Diagnostic Stability of Schizoaffective Disorder

Schwartz et al did a follow up study at 6 months and 24 months of 547 subjects with an initial diagnosis of psychosis (11). They found that the least stable diagnoses were Psychosis Not Otherwise Specified (44%) and Schizoaffective Disorder (36%). Maj et al reported that the inter-rater reliability for Schizoaffective Disorder was poor (Cohen's kappa of 0.22) (12). However in

their study only a small number (15 MHCUs) met the DSM IV criteria for the disorder. This probably reflects the limitations of the DSM IV and other diagnostic systems i.e. International Classification of Diseases (ICD 10) and Research Diagnostic Criteria (RDC), which are also being frequently updated. The DSM IV criteria which is more widely used and is said to be more stringent than the other two diagnostic systems, requires that the exact length of the mood episode be determined which is not always possible. In addition, it states that the mood symptoms must be present for a substantial part of the total duration of the illness – however this "substantial" period is not specified.

Researchers such as Maier question whether the disorder exists at all (13). In a recent retrospective study at two university hospitals in Copenhagen, Vollmer-Larsen et al examined the degree to which the clinicians' diagnosis of Schizoaffective Disorder was in accordance with the operational criteria for the disorder (14). They re-evaluated 59 MHCUs using the Operational Criteria checklist (OPCRIT) that were given an ICD-10 discharge diagnosis of Schizoaffective Disorder. The OPCRIT was applied to the users' hospital records. Diagnoses were allocated by OPCRIT and by agreement of 2 psychiatrists. They found that only 6 users met the ICD-10 criteria and none of the users met the DSM IV criteria for the disorder on a lifetime basis. This may be attributed to the fact that in Denmark, clinicians have to abide by ICD-10 criteria to make diagnoses.

2.4 Use of OPCRIT to Diagnose Schizoaffective Disorder

The OPCRIT checklist for psychotic and affective illnesses was developed in 1991 by McGuffin et al and it considers a polydiagnostic approach to psychiatric disorders (15). OPCRIT for Windows version 4.0 is a 90-item checklist of psychopathology, pre-morbid functioning, personal history and family history. It has built-in algorithms that are designed to generate

reliable diagnoses from case notes according to the operational criteria of 12 major classification systems (e.g. DSM IV, ICD-10 etc). It has not incorporated the latest DSM IV TR (text revision) criteria into the algorithms, but for the purposes of this study, it is worth noting that no differences exist between the DSM IV and DSM IV TR criteria for Schizoaffective Disorder. Consensus best-estimate lifetime diagnosis is deemed to be the most reliable way to determine lifetime psychiatric diagnoses. In a study by Craddock et al, it was found that diagnoses generated by OPCRIT showed excellent agreement with the current "gold standard" of consensus best-estimate lifetime diagnosis (16). They describe OPCRIT as, "a convenient, reliable, rapid and valid approach to polydiagnostic assessment that can be used as an adjunct to conventional (but time-consuming) best-estimate consensus diagnostic procedures." Williams et al found that there were good levels of reliability of DSM III-R OPCRIT diagnoses (kappa 0.73) in a multicentre trial involving clinicians from Europe and America (17).

2.5 Treatment Guidelines

Adding to the dearth of knowledge regarding Schizoaffective Disorder, no treatment guidelines exist for this illness. The American Psychiatric Association (APA) guidelines, National Institute for Health and Clinical Excellence (NICE) guidelines, Maudsley Prescribing Guidelines and the Standard Treatment Guidelines for common psychiatric disorders in South Africa do not provide the clinician with an algorithm or protocol for treating this illness. The Australian and New Zealand treatment guidelines give a brief outline of treatment for first episode schizoaffective psychosis (18). This adds more weight to the argument that Schizoaffective Disorder as a discrete entity does not exist.

2.6 Conclusion

To date, no studies have looked at the agreement of Schizoaffective Disorder diagnosis between the clinician and that generated by OPCRIT in South Africa. In anticipation of the DSM V and ICD 11 in 2013, it is imperative that we examine the quality of the Schizoaffective Disorder diagnosis and its usefulness as a distinct nosological category. It is important that we look at whether this “label” benefits our users in any way. This study also attempts to describe the profile of the users that have been assigned this diagnosis.

CHAPTER 3

THE STUDY

3.0 THE STUDY

3.1 Objectives

The core aim of the study was to explore the diagnosis of Schizoaffective Disorder. This was attempted using two main objectives. The first was to describe the demographic, clinical and treatment profile of mental health care users (MHCUs) diagnosed with Schizoaffective Disorder at Helen Joseph Hospital (a local acute psychiatric unit). The second objective was to determine the degree of agreement between the clinicians' diagnosis and that generated by OPCRIT. This study hypothesised that there would be little to no agreement between the clinicians' diagnosis of Schizoaffective Disorder and the OPCRIT diagnoses. This was based on the available evidence that Schizoaffective Disorder has had poor diagnostic stability; poor inter-rater reliability as well as there being poorly-defined criteria for the disorder.

3.2 Design

A retrospective record review was undertaken of all users given a diagnosis of Schizoaffective Disorder at Helen Joseph Hospital for the period from January 2004 to December 2010.

3.3 Method

The study population comprised all MHCUs who were diagnosed with Schizoaffective Disorder at Helen Joseph Hospital over a 6 year period. Based on preliminary data, this was estimated to encompass approximately 90 users. No exclusion criteria were considered and all differential diagnoses were taken into account.

The MHCUs' hospital records were used as the data source in order to ascertain the following:

1) To describe the profile of MHCUs diagnosed with Schizoaffective Disorder, demographic data, family history, past psychiatric history and treatment history were recorded (appendix B).

2) The OPCRIT checklist for Windows version 4 (appendix C) was used to yield a computer-generated diagnosis according to DSM IV criteria.

The OPCRIT first requires input pertaining to the MHCUs' details and history such as source of information; demographic data; age and mode of onset; illness duration; pre-morbid functioning (social, occupational and personality); stressor or coarse brain disease prior to onset; substance use disorder within 1 year of onset and family history of Schizophrenia or other mental illnesses.

It then requires information regarding duration and description of the following signs and symptoms: appearance and behaviour; speech and thought form disorders; affect and associated features; abnormal beliefs and ideas; abnormal perceptions; substance use disorders and a general appraisal. The general appraisal category assesses aspects such as credibility of information given by users; rapport difficulties; insight; level of impairment during the episode; deterioration from pre-morbid level of functioning; whether the psychotic symptoms responded to neuroleptics or not and the course of the disorder.

These symptoms are recorded for the time frame being studied (i.e. most recent episode, worst ever episode, lifetime ever occurrence of signs and symptoms or other specified episode). For this study, symptoms were recorded on an 'other specified episode' basis. The episode used was the one that had the most information in the users' files. The OPCRIT instruction guidelines recommend that psychotic symptoms be rated either on a lifetime ever or episode by episode basis and that affective symptoms be rated for specific episodes (15, 16).

3.4 Statistical Analysis

The data was entered into an Excel spreadsheet and analysed using Statistica version 8.0. Descriptive analysis was undertaken using frequencies and percentages for categorical variables, and means (standard deviation) or medians (range) where appropriate.

For comparisons of proportions, Chi-square or Fischer's exact tests were used where appropriate. For comparison of means, the t-test or Mann-Whitney test were used for non-normally distributed variables.

Agreement between the clinicians' diagnosis and OPCRIT diagnosis was measured using the kappa coefficient. The kappa coefficient measures the agreement between 2 raters and takes into consideration the agreement occurring by chance. It ranges from 0 (no agreement) to 1 (complete agreement).

Statistical significance was determined at the 0.05 level.

3.5 Ethics

Ethics approval was obtained from the University of Witwatersrand's Human Research and Ethics Committee (HREC) (Appendix A). Each user's file was assigned a number and no identifying user information was utilised. Each file was stored with the researcher and no one else had access to the files.

3.6 Funding

All costs were undertaken by the researcher.

CHAPTER 4

RESULTS

4.0 RESULTS

A psychiatrist at the psychiatric ward at Helen Joseph Hospital kept records of demographic and diagnostic data for every mental health care user (MHCU) admitted and subsequently discharged from that ward. Users that were given a discharge diagnosis of Schizoaffective Disorder between 2004 and 2010 were retrieved from this database. Approximately 90 MHCUs were identified, however only 45 of their files were traced. This was largely due to all MHCUs' files from the entire hospital being housed in one central administration section and files that were older than 5 years being destroyed to make space for newer files.

4.1 Demographic Profile of MHCUs

Of the total sample of 45 MHCUs, 68.89% (N=31) were female and 31.11% (N=14) were male (Table 4.1). The mean age of the users at the time of the study was 44 years, with the youngest being 23 years and the oldest being 73 years. Majority of the users (84.44%, N=38) were not married. Only 11.11% (N=5) of the users were employed despite 79.07% (N=34) of them having 10 years or more of education. Data regarding whether or not users were on a disability grant were only recorded for 34 out of the 45 users. Of these 34 users, 64.71% (N=22) were on a disability grant.

Table 4.1 Demographic Profile of Mental Health Care Users

N	45
Age (mean ± SD) (years)	44 ± 12.28
Gender [n (%)] Females	31 (68.89)
Males	14 (31.11)
Race [n (%)] Black	17 (37.78)
White	15 (33.33)
Indian	7 (15.56)
Coloured	6 (13.33)
Marital Status [n (%)] Single	38 (84.44)
Married	7 (15.56)
Level of Education [n (%)] <10 years*	9 (20.93)
≥10 years*	34 (79.07)
Unemployed [n (%)]	40 (80.89)
On a Disability Grant [n (%)]**	22 (64.71)

* Data not recorded in file for 2 users
**Data not recorded in file for 11 users

4.2 Psychiatric History of MHCUs

The mean age of onset of mental illness for 43 users was 25 years (Table 4.2). This information was not available in the hospital records of 2 users. The mean number of days spent in hospital was 23 days, with the shortest stay being 2 days and the longest being 53 days. More than half of the users (60%, N=27) had had 5 or more psychiatric admissions. A Substance Use Disorder was present in 24.44% (N=11) of users. The specific substance of abuse or dependence was not recorded for most users and this data has therefore not been analysed.

Table 4.2 Psychiatric History of Mental Health Care Users

N	45
Age of Onset of Mental Illness (mean ± SD) (years)*	25 ± 7.11
Number of Days in Hospital (mean ± SD)	23 ± 12.77
Number of Admissions [n (%)] <5	18 (40)
≥5	27 (60)
Positive Family Psychiatric History [n (%)]	25 (55.56)
Presence of Substance Use Disorders [n (%)]	11 (24.44)

*Data not recorded in file for 2 users

4.3. Family Psychiatric History

There was a family history of mental illness present in 55.56% (N=25) of the users in the sample (Figure 4.1). Of those with a family history of mental illness, the specific mental illness was only recorded for 52% (N=13) of users. Of these, 76.92% (N=10) had a family history of a mood disorder: 46.15% (N=6) with Bipolar Disorder and 30.77% (N=4) with Depression. A family history of Schizophrenia was present in 7.70% (N=1) of users. A family history of both Bipolar Disorder and Schizophrenia was present in 15.38% (N=2) of users.

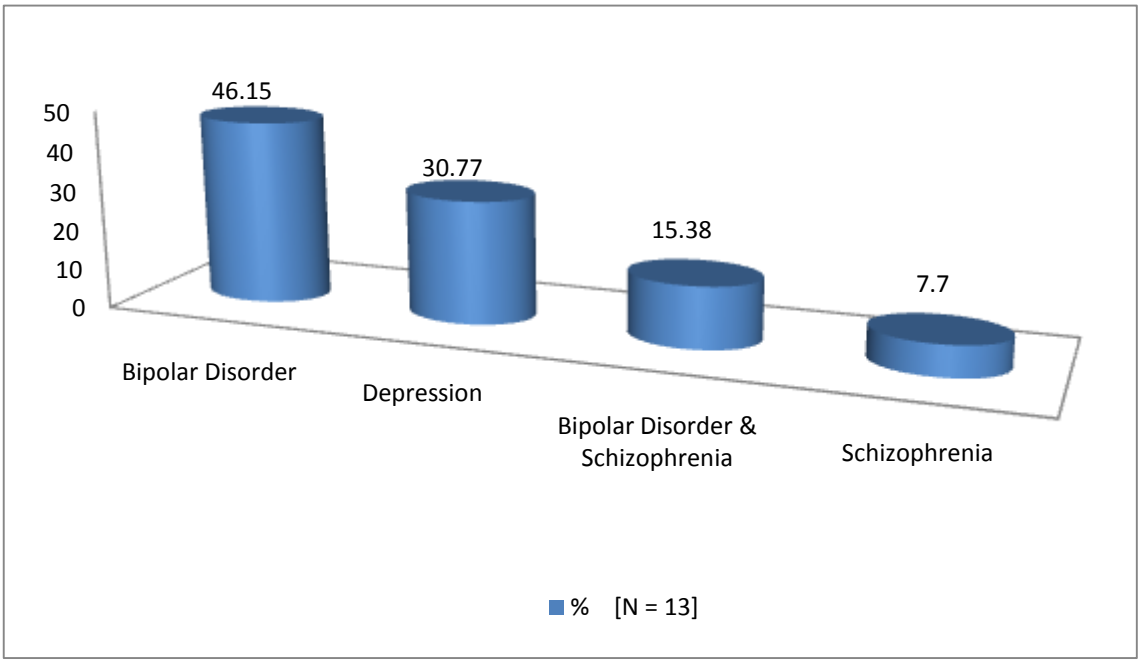

Figure 4.1 Family Psychiatric History

4.4 Clinical Profile of Users

4.4.1 Treatment Adherence

A total of 86.05% (N=37) of the MHCUs were non-adherent to treatment at the time of admission (Figure 4.2). Treatment refers specifically to the medication prescribed for their psychiatric illness. Treatment adherence was not applicable in 4.65% (N=2) of users. This is because this was their index psychiatric presentation and they were therefore not on any prescribed psychiatric medication.

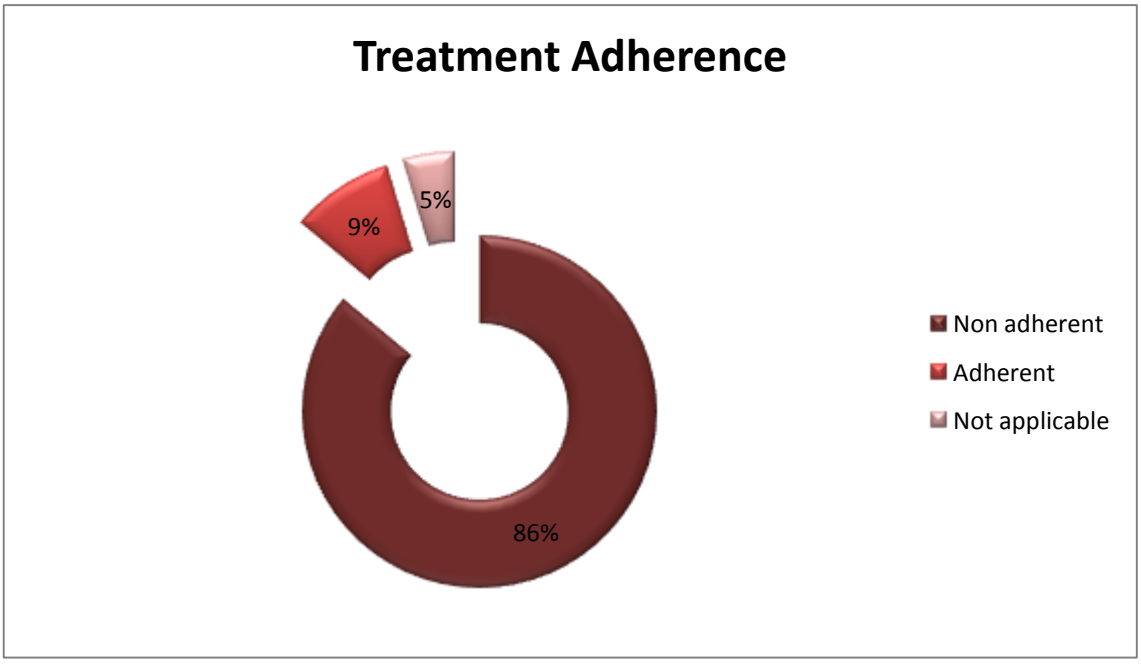

Figure 4.2 Treatment Adherence

4.4.2 Diagnostic Profile

For the admission studied, 62.22% (N=28) of MHCUs were given a discharge diagnosis of Schizoaffective Disorder (Figure 4.3). The subtype of the disorder was only specified for 75% (N=21) of these users, with 90.48% (N=19) being diagnosed with the Bipolar subtype and 9.52% (N=2) with the Depressive subtype. In addition, 20% (N=9) were diagnosed with Schizophrenia; 15.56% (N=7) with Bipolar Disorder and 2.22% (N=1) with Substance-induced Psychotic Disorder upon discharge.

A differential diagnosis was only given to 19 of the 45 users. Of these, 68.42% (N=13) were diagnosed with Schizoaffective Disorder; 15.79% (N=3) with Bipolar I Disorder; 10.53% (N=2) with Schizophrenia and 5.26% (N=1) with Dementia.

Information on previous diagnoses was only available for 34 users. Of these, Schizophrenia was diagnosed in 47.06% (N=16) and Bipolar I Disorder in 38.24% (N=13). Only 8.82% (N=3) of users were diagnosed with Schizoaffective Disorder on their previous admissions. Major Depressive Disorder was previously diagnosed in 5.88% (N=2) of users.

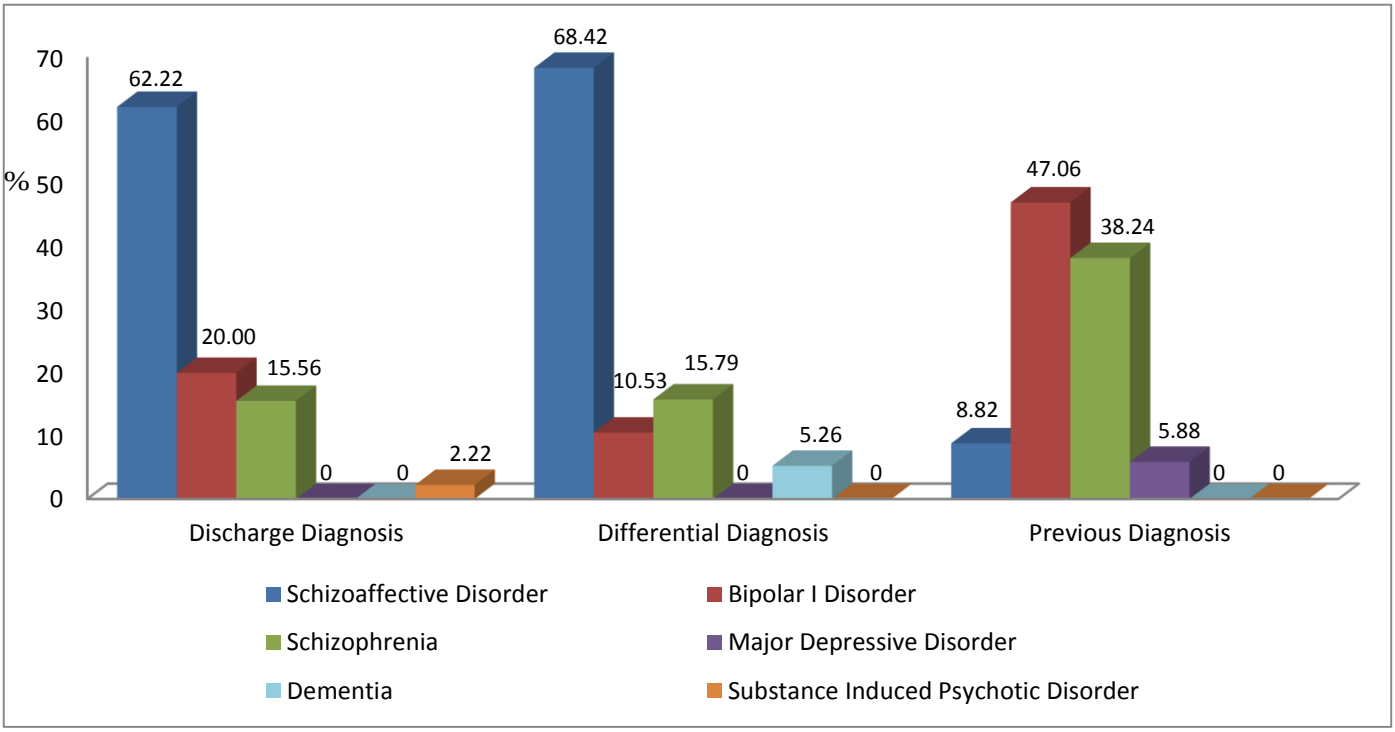

Figure 4.3 Diagnostic Profile

4.4.3 Treatment Profile

4.4.3.1 Number of Neuroleptics

During the admission studied, 77.78% (N=35) of MHCUs were treated with 1 antipsychotic while 22.22% (N=10) were treated with 2 antipsychotics (Table 4.3). The typical depot antipsychotics Flupenthixol Decanoate (Fluanxol) or Zuclopenthixol Decanoate (Clopixol) were the second antipsychotic used in those MHCUs that were treated with 2 antipsychotics. Majority of the users (80%, N=36) were on a combination of at least 1 mood stabiliser and at least 1 antipsychotic. No mood stabiliser was prescribed in 20% (N=9) of users, while 73.33% (N=33) were given 1 mood stabiliser and 6.67% (N=3) were given 2 mood stabilisers. Of those on 2 mood stabilisers (N=3), 2 users were treated with a combination of Sodium Valproate and Lithium and 1 was treated with Carbamazepine and Lithium. An antidepressant was prescribed for 11.11% (N=5) of the users.

Table 4.3 Number of Neuroleptics

N		45
Number of Antipsychotics [n (%)]	0	0 (0)
	1	35 (77.78)
	2	10 (22.22)
Number of Mood Stabilisers [n (%)]	0	9 (20)
	1	33 (73.33)
	2	3 (6.67)
Number of Antidepressants [n (%)]	0	40 (88.89)
	1	5 (11.11)
	2	0 (0)
Combination of at least 1 Antipsychotic and 1 Mood Stabiliser [n (%)]		36 (80)

4.4.3.2 Antipsychotics

a) Typical Antipsychotics

With regard to oral medication, Haloperidol was prescribed for 33.33% (N=15) of MHCUs while 2.22% (N=1) received Trifluoperazine (Figure 4.4). Flupenthixol Decanoate (Fluanxol) depot was prescribed to 26.67% (N=12) of users, while 8.89% (N=4) received Zuclopenthixol Decanoate (Clopixol) depot.

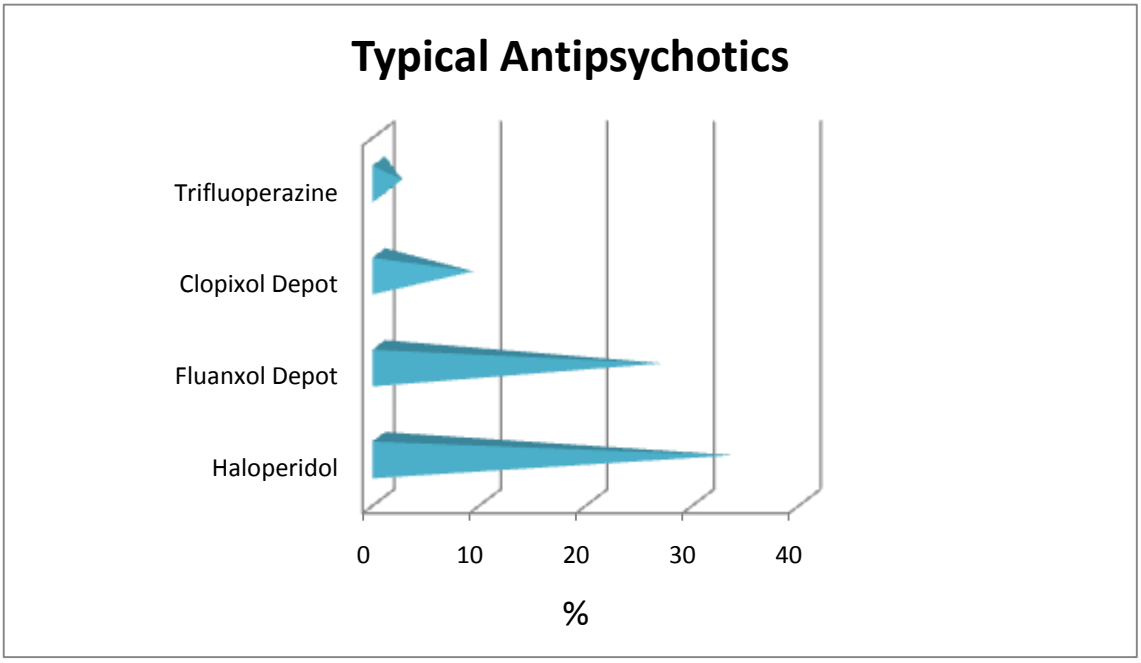

Figure 4.4 Typical Antipsychotics

b) Atypical Antipsychotics

Risperidone was used to treat 40% (N=18) of MHCUs, while Clozapine was used to treat 8.89% (N=4) of users (Figure 4.5). The depot Risperidone Consta was prescribed in 2.2% (N=1).

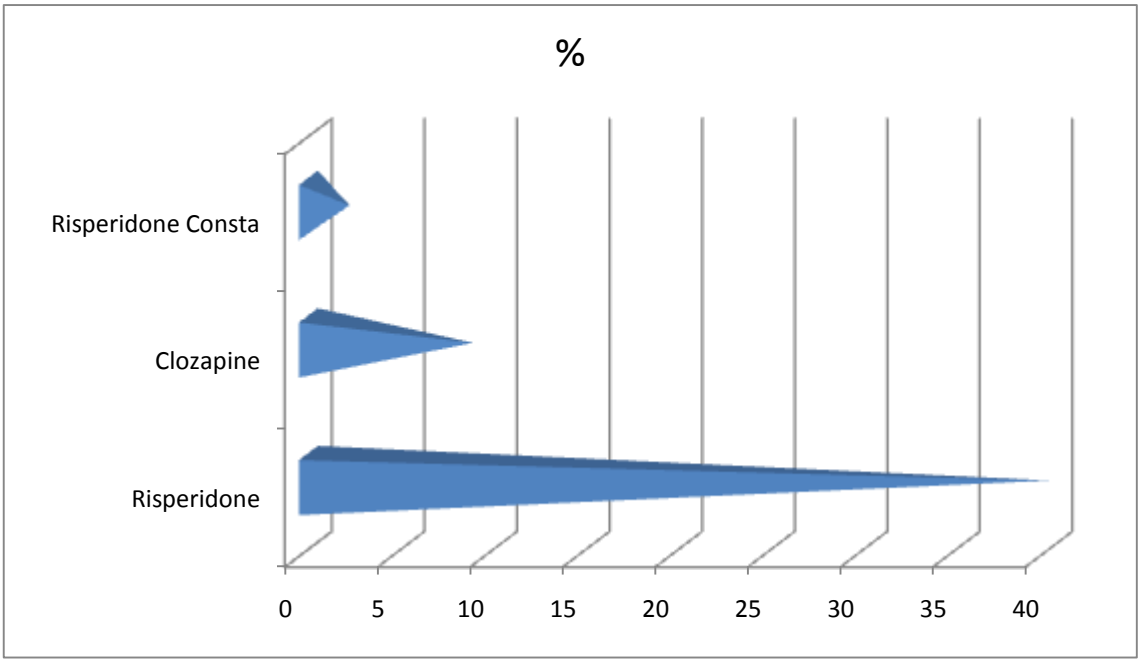

Figure 4.5 Atypical Antipsychotics

4.4.3.3 Mood Stabilisers

Mood stabilisers were not prescribed at all for 20% (N=9) of the users. Majority (60%, N=27) of the users were treated with Sodium Valproate, while 13.33% (N=6) received Carbamazepine, 11.11% (N=5) received Lithium and 2.22% (N=1) received Lamotrigine (Figure 4.6). Only 6.66% (N=3) of users received a combination of 2 mood stabilisers.

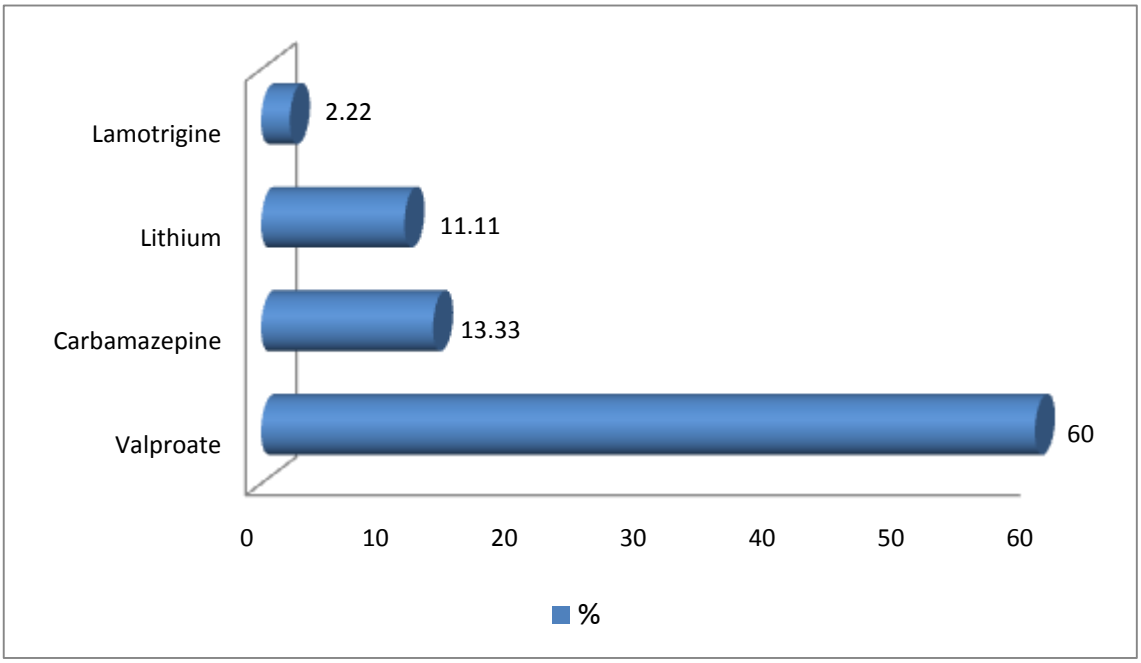

Figure 4.6 Mood Stabilisers

4.4.3.4 Antidepressants

Citalopram was prescribed to 8.89% (N=4) of MHCUs and Mianserin to 2.22% (N=1) (Figure 4.7).

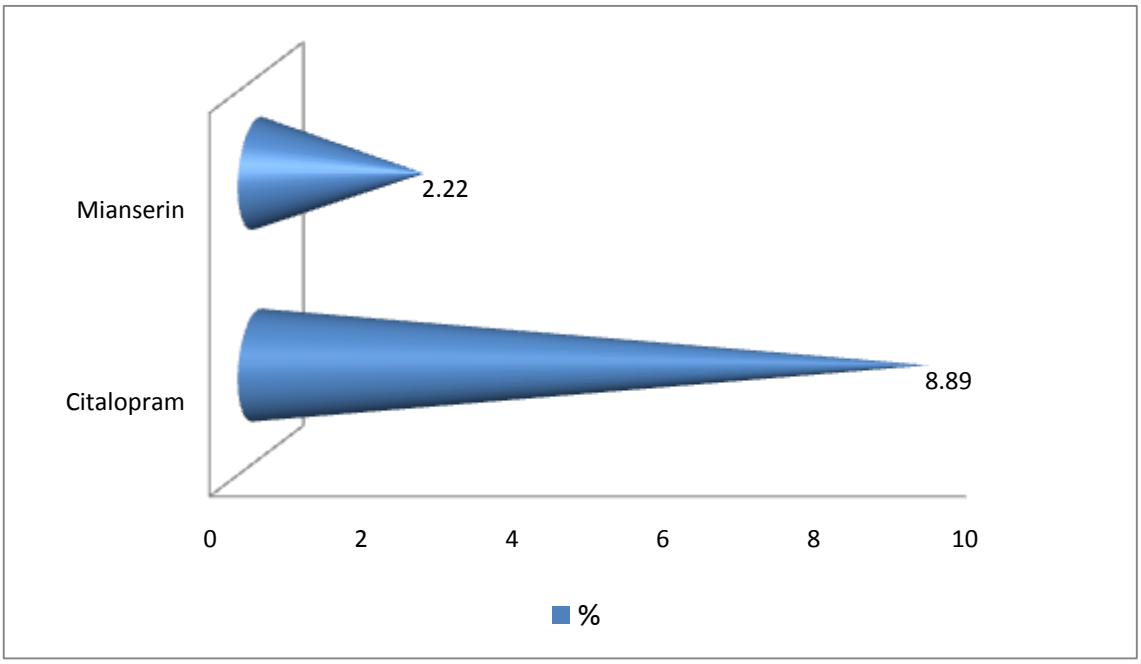

Figure 4.7 Antidepressants

4.4.4 Further Treatment

Upon discharge from Helen Joseph Hospital, 55.56% (N=25) were referred to their local psychiatric clinic for follow up and 11.11% (N=5) were referred to a psychiatric placement facility (Figure 4.8). The remaining mental health care users were transferred to other psychiatric hospitals for further care, treatment and rehabilitation: 22.22% (N=10) to Tara Hospital and 11.11% (N=5) to Sterkfontein Hospital.

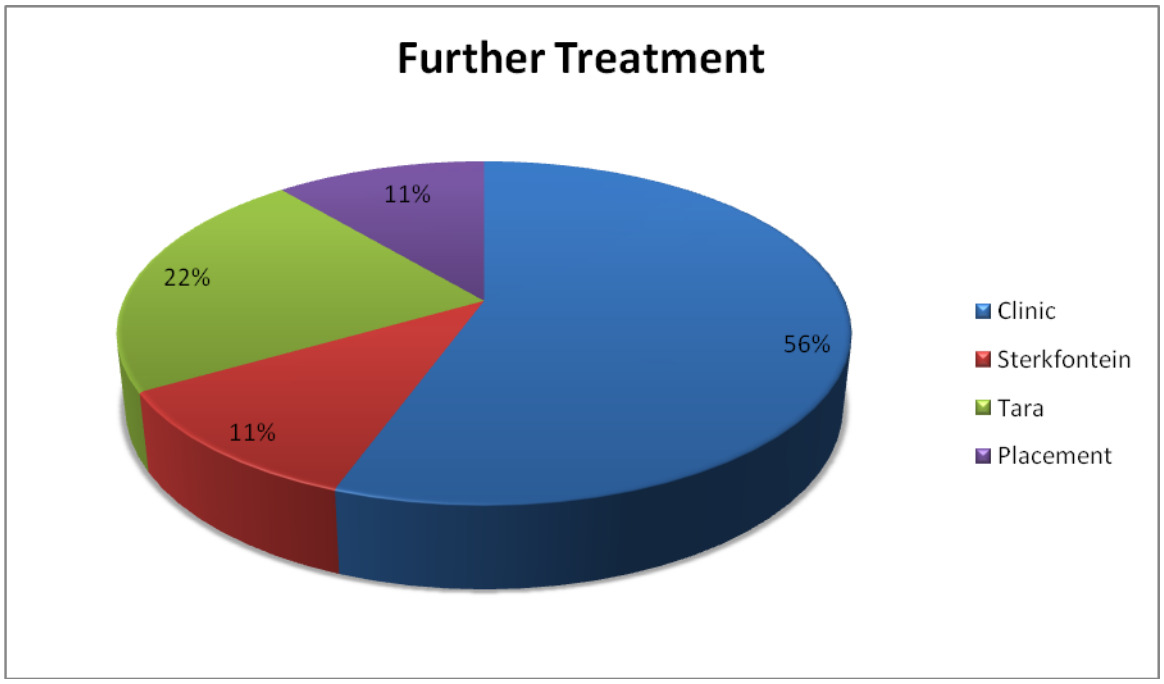

Figure 4.8 Further Treatment

4.5 Diagnoses Generated by OPCRIT

The most common diagnosis generated by OPCRIT was that of Psychosis Not Otherwise Specified (26.67%, N=12) (Figure 4.9). Schizoaffective Disorder was diagnosed in 24.44% (N=11) of users. Similarly, Bipolar I Disorder was diagnosed in 24.44% (N=11) of users. The least commonly generated diagnoses were Schizophreniform Disorder (17.78%, N=8), Delusional Disorder (4.44%, N=2) and Schizophrenia (2.22%, N=1).

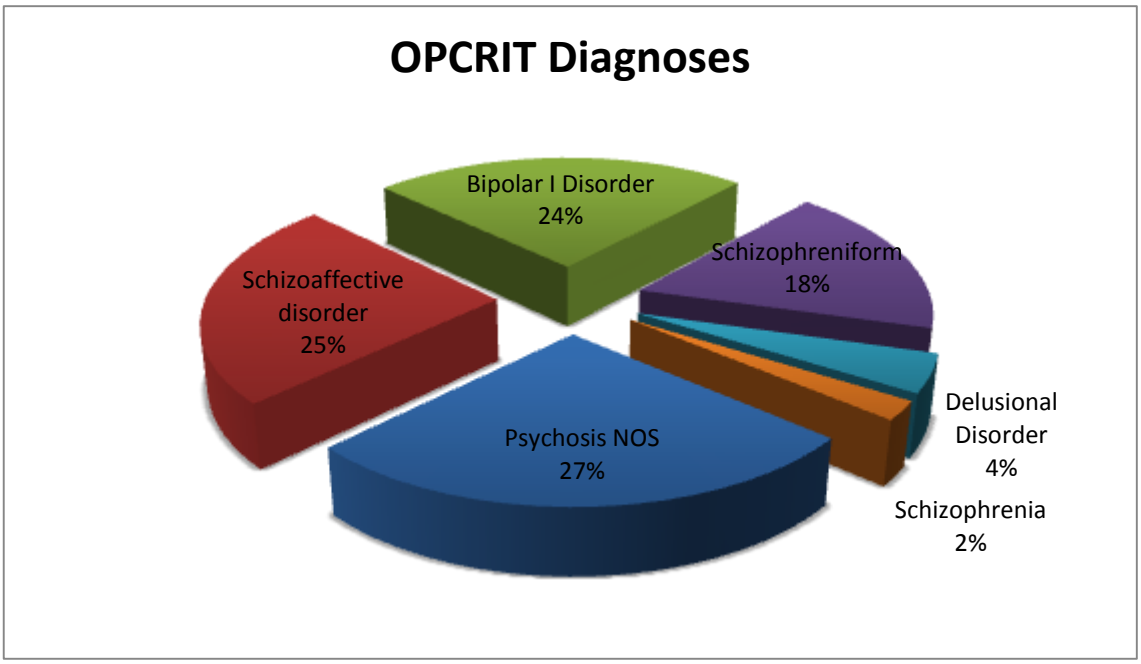

Figure 4.9 Diagnoses Generated by OPCRIT

4.5 a) Exploratory Analysis

Entering data into the OPCRIT checklist from information in the mental health care users' records proved to be challenging. This was because a fair proportion of the information required by OPCRIT was not documented in the users' records. It therefore stands to reason that Psychosis Not Otherwise Specified (NOS) was the most common diagnosis generated by OPCRIT. Further exploration was therefore conducted to try and elicit the most common variables for which information was lacking.

4.5 b) The Most Common Variables in OPCRIT for which Data was Lacking

This data was only available for 44 of the 45 users. Of these 44 users, the '*mode of illness onset'* was not recorded for most (86.36%, N=38) of the users (Figure 4.10). Of note, the second most common variable for which information was absent was that of *'relation between mood and psychotic symptoms*'. This information was absent for 27.27% (N=12) of users and is an important criterion used to make the diagnosis of Schizoaffective Disorder. The presence of *'poor work adjustment'* was not documented for 25% (N=11) of users. For 22.73% (N=10), there was no documentation of the presence of *'substance use within 1 year of symptom onset'*. Other variables for which information from the users' records were lacking included: *'stressor prior to onset'*, 20.45% (N=9); *'employed at onset'*, 18.18% (N=8); *'poor social adjustment'*, 18.18 (N=8); *'premorbid personality disorder'*, 15.91% (N=7) and '*brain disease prior to onset'*, 2.27% (N=1).

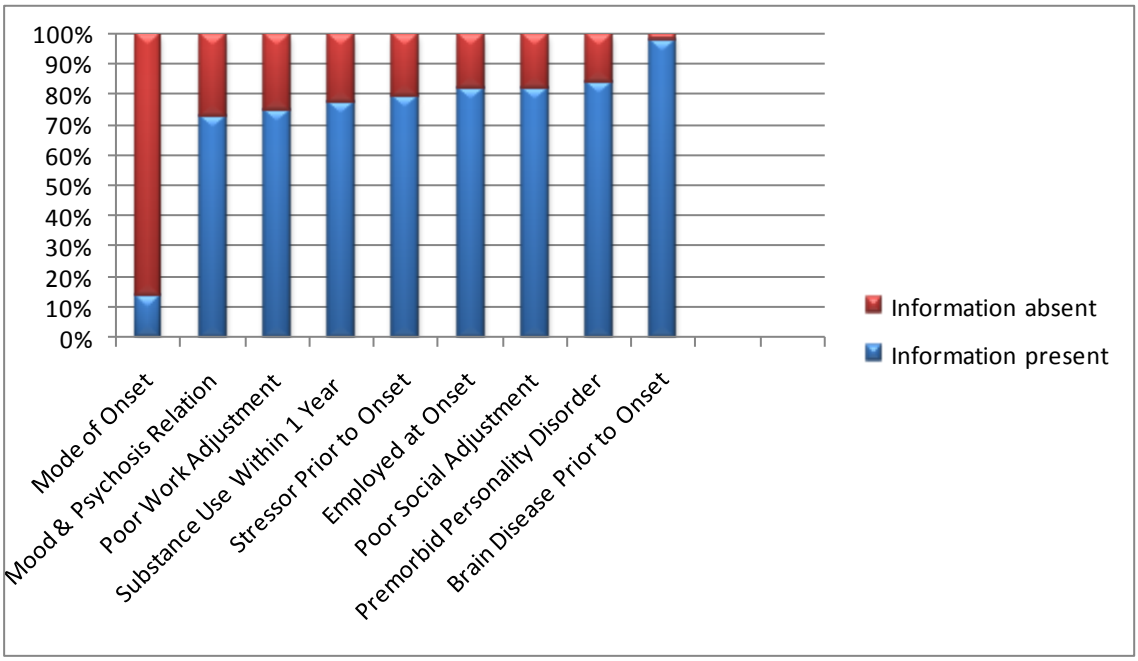

Figure 4.10 OPCRIT Variables for which Data was Most Lacking

4.6 Agreement between Clinician and OPCRIT

The Kappa Coefficient was found to be (-0.0014). This means that there was no agreement between the clinicians' diagnosis and that generated by OPCRIT. This result is in keeping with the research hypothesis that there would be little or no agreement between the clinicians' diagnosis and OPCRIT.

CHAPTER 5

DISCUSSION

5.0 DISCUSSION

This study set out to describe the profile of MHCUs at Helen Joseph Hospital that were diagnosed with Schizoaffective Disorder as well as to determine the degree of agreement between the clinicians' diagnosis and that generated by OPCRIT. Below is a summary of the main findings that have emerged from the study. This will be followed by a detailed discussion of the results.

The study revealed that the majority of MHCUs diagnosed with Schizoaffective Disorder were female (68.89%, N=31), not married (84.44%, N=38) and unemployed (88.89%, N=40). Of the 34 users in which this information was recorded, 64.71% (N=22) were noted to be on a disability grant. The mean age of illness onset was 25 years and majority of MHCUs (60%, N=27) had 5 or more previous psychiatric admissions. The average duration of hospitalisation during the study period was 23 days. There was a positive family history of mental illness in 55.56% (N=25) of users. Of the 52% (N=13) of users in which the specific mental illness in the family was documented, Bipolar I Disorder was the most common (46.15%, N=6). Of the 43 users who were previously on psychiatric medication, majority (86.05%, N=37) were non-adherent to treatment at the time of re-admission. Previous diagnoses were only recorded for 34 users and revealed that no more than 8.82% (N=3) were diagnosed with Schizoaffective Disorder on previous admissions, whereas 47.06% (N=16) of these users were previously diagnosed with Schizophrenia. Majority (80%, N=36) of MHCUs were treated with a combination of at least 1 antipsychotic and 1 mood stabiliser during admission. Psychosis Not Otherwise Specified (26.67%, N=12) was the most common diagnosis generated by OPCRIT. This was followed closely by Schizoaffective Disorder (24.44%, N=11) and Bipolar I Disorder (24.44%, N=11). The Kappa coefficient revealed that there was no agreement between the clinicians' diagnosis and the OPCRIT diagnosis.

5.1 Demographic Profile of MHCUs

Epidemiological data on Schizoaffective Disorder is lacking (19, 20). Marneros reports that there are no epidemiological data on Schizoaffective Disorder, but no reasons are given as to why this is so (20). Abrams and colleagues concur that there is little data to base firm estimates on the epidemiology of this disorder but report that the lifetime prevalence may be between 0.2% and 1.1% (19). Kebede and Alem reported the lifetime prevalence of the disorder in Ethiopia to be 0.5% (21).

It appears that collating data on the epidemiology of Schizoaffective Disorder is difficult due to the poor reliability and stability of the diagnosis and because diagnostic criteria for the disorder have changed over time. Making the diagnosis in a clinical setting has proven challenging as the reliability for most definitions of Schizoaffective Disorder is low. The DSM IV criteria for the disorder has been criticised for not being specific enough especially with regard to the proportion of the duration of the mood episodes to the total duration of the active and residual phases of the illness. Also, Vollmer-Larsen et al found that MHCUs with affective symptoms super-imposed on pre-existing Schizophrenia, as well as those with affective disorders with accompanying psychotic symptoms were being misdiagnosed as having Schizoaffective Disorder (14). Re-iterating this, Abrams and colleagues infer that the wide range of epidemiological estimates for this disorder should make one question the manner in which the diagnosis was made (19).

Gender

In this study, 68.89% (N=31) of the sample was female. This is in keeping with the findings of Vollmer-Larsen et al who reported that the diagnosis was given more frequently to women (14). In Vollmer-Larsen's study, the percentage of females diagnosed with Schizoaffective Disorder at

2 university hospitals were 68.75% (N=22) and 81.48% (N=22) respectively. Echoing this, Abrams et al in their review quote the DSM IV-TR as well as several studies that suggest that approximately ⅔ of people with the disorder are female (19).

Race

According to the *Mid-year Population Estimates 2011* from Statistics South Africa, 79.5% of the population is Black; the White and Coloured population make up 9% each and Indian/Asians comprise 2.5% of the population (22). In this study, the diagnosis was given almost equally to Black and White South Africans (37.78%, N=17) and (33.33%, N=15) respectively, and this was at least twice as much as was diagnosed in Indian (15.56%, N=7) and Coloured (13.33%, N=6) South Africans. This infers that the disorder does not seem to predominate in any specific race. However, given the small sample size in this study, this cannot be stated with certainty. No studies were found that commented on the racial demographics of MHCUs diagnosed with Schizoaffective Disorder.

Social, Occupational and Interpersonal Functioning

In this study, majority of the users were single (84.44%, N=38); unemployed (88.89%, N=39) and were on a disability grant (64.71%, N=22). This suggests that the majority of these users experienced dysfunction in some or most aspects of their life. This is consistent with the Schizoaffective Disorder sample in Vollmer-Larsen's study that described the majority of these users as having chronic or longstanding illness, characterised by severe occupational dysfunction or disability (14). This is in contrast to the cases of Schizoaffective Disorder that were originally described by Kasanin (1). Kasanin's MHCUs were described as having a sudden onset of symptoms precipitated by a definite stressor and who had good recovery. Kasanin also suggested that these users may have permanent recovery if they were in a good environment

with proper social and industrial adjustment.

5.2 Psychiatric History of MHCUs

Age of Onset

The mean age of illness onset for this sample was 25 years (range 14 – 44 years). These figures are similar to those in the Vollmer-Larsen study which revealed a mean age of 27 years at Hospitals 1 and 2 with age ranges of 13 – 56 years and 15 – 46 years respectively (14). Vollmer-Larsen et al also reported that the Schizoaffective Disorder diagnosis was given for the first time to subjects within a wide age range (17 – 81 years in Hospital 1 and 24 – 75 years in Hospital 2 respectively). In the present study, it was not possible to comment on age at which users were first diagnosed with Schizoaffective Disorder as this data was lacking for more than 50% of users.

In their review, Abrams et al state that Schizoaffective Disorder seems to have a broad age of onset in adults (19). Abrams et al quote a study by Angst and Preisig in 1995 and one by Dell'Osso et al in 1993 that showed an earlier age of onset in those with Schizoaffective Disorder compared to those with Unipolar or Bipolar Disorder and those with psychotic mania or mixed episodes respectively. This suggests that the age of onset for Schizoaffective Disorder is earlier than for mood disorders and may be similar to that of Schizophrenia.

However, Abrams et al also quote a 1990 study by Marneros and colleagues that did a record review as well as prospective interviews with 900 people diagnosed with Schizophrenia, Mood disorders and Schizoaffective Disorder. That study showed that of those with Schizoaffective Disorder, a third developed the disorder between 25 and 30 years, a third developed it prior to age 25 years and a third developed it after age 35 years. The fact that a third of people with

Schizoaffective Disorder had an age of onset similar to Schizophrenia and another third had an age of onset similar to Bipolar Disorder reverts to the age-old debate of whether Schizoaffective Disorder is a variant of Schizophrenia, Bipolar Disorder, a co-occurrence of the two disorders or a discrete disorder.

This marked variability in age of onset coupled with lack of epidemiological data on MHCUs with Schizoaffective Disorder seems to be largely due to differences in the way in which the disorder is being diagnosed. This makes one understand why Abrams and many others are calling for a dimensional approach as opposed to the long-standing categorical approach to diagnosis of psychiatric disorders.

Hospitalisation

a) Number of Days in Hospital

The average length of stay for the admission studied was 23 days. Again, no other studies have looked at the profile of these users and it is therefore not possible to make any deductions from this.

This average length of stay however is not an accurate reflection of the total duration of illness for the admission studied for two main reasons. Firstly, only 55.56% (N=25) were discharged to follow up at their local clinic. This means that the remaining 44.44% (N=20) required further care, treatment and rehabilitation and were transferred to Tara Hospital, Sterkfontein Hospital or a placement facility. Secondly, we do not have adequate information on the duration of the illness prior to these users requiring hospitalisation.

b) Number of Admissions

In this study, 60% (N=27) of users had 5 or more previous psychiatric admissions. Vollmer-

Larsen's study of those diagnosed with Schizoaffective Disorder at two university hospitals also found that these users had had numerous admissions (14). The mean number of admissions were 16 (range: 1 – 63) at Hospital 1 and 15 (range: 3 – 37) at Hospital 2. The number of admissions alone does not predict the natural history, outcome or prognosis of the disorder. However, this coupled with other factors demonstrating social, occupational and inter-personal dysfunction may be suggestive of a poorer outcome in these users. Unfortunately, the available literature on this disorder has not been consistent in predicting outcomes in these users. Some studies suggest a similar outcome to Schizophrenia (23, 24, 25). Others suggest a better outcome than Schizophrenia and a similar outcome to mood disorders (26, 27). While still others suggest that the outcome is better than in Schizophrenia but worse than in mood disorders (28, 29). Again, these discrepancies may be attributed to the changing criteria over time and poor reliability and stability of the diagnosis. Increasingly, the notion of considering Schizoaffective Disorder in a dimensional view as opposed to a categorical one is becoming more appealing. If this were so, we could accept that these users have varying degrees of dysfunction in domains of information processing and emotional regulation and that their outcomes could be based on the severity of dysfunction in these domains.

5.3 Family Psychiatric History

Of the 52% (N=13) of users in which the psychiatric diagnosis in the family was recorded, 76.92% (N=10) were noted to have a mood disorder: 46.15% (N=6) with Bipolar Disorder and 30.77% (N=4) with Depression. A family history of Schizophrenia was present in 7.70% (N=1) of users and a family history of both Bipolar Disorder and Schizophrenia were present in 15.38% (N=2) of users. Despite the results suggesting a higher preponderance of mood disorders in these users, it is difficult to draw any substantial conclusions from this as data was not present for almost half of this sub-sample (48%, N=12). The fact that 7.7% of the sample (N=1) had a

family history of Schizophrenia and 15.38% (N=2) had a family history of both Bipolar Disorder and Schizophrenia suggests that Schizoaffective Disorder has a link to both mood disorders and psychotic disorders. This is in line with newer evidence that has demonstrated abnormalities in the gene DISC1 (acronym for Disrupted in Schizophrenia 1) in MHCUs with Schizophrenia, Bipolar Disorder and Schizoaffective Disorder (30, 31, 32).

5.4 Clinical Profile of Users

5.4.1 Treatment Adherence

In this sample, 86.05% (N=37) of the users were non-adherent to their psychiatric treatment at the time of admission. The reasons for non-adherence were not documented in most of these users' files. The fact that the majority of the users were non-adherent is not surprising however.

In a 3 month study period, defining non-adherence as missing more than 30% of doses, Byerly and colleagues used electronic monitoring with Medication Event Monitoring System (MEMS) caps in 25 MHCUs with Schizophrenia and Schizoaffective Disorder to assess adherence (33). They found that 48% of these users were non-adherent and that the clinicians did not identify any of the non-adherent users. Using the same definition of non-adherence stated above, Byerly and colleagues did a further 6 month study assessing adherence in MHCUs with Schizophrenia and Schizoaffective Disorder using electronic monitoring with MEMS caps; users' reports; prescribers' reports as well as a MHCU questionnaire (34). Non-adherence rates were found to be 5% as reported by MHCUs, 7% as reported by prescribers, 54% as revealed by the questionnaire and 57% as revealed by the MEMS caps data.

In addition, Olfson and colleagues compared rates of adherence to antipsychotic medication in MHCUs with Schizophrenia and Schizoaffective Disorder using Medicaid claims data from 55 330 MHCUs (35). They found the adherence rates to be 59.2% in those with Schizoaffective

Disorder and 63.8% in those with Schizophrenia but stated that this was not a significant difference. The reasons given for the slightly lower adherence rates in those with Schizoaffective Disorder included the fact that mood stabilisers, antidepressants and anxiolytics were prescribed more frequently and that there were higher rates of substance abuse and hospitalisations in these individuals.

The non-adherence rate in this study is higher than the rates reported in the literature. This is possibly due to this study being done on individuals that required admission at the time and them being most non-adherent at that point. As noted by Goff et al, MHCUs are not simply "adherent" or "non-adherent", but are rather best described as being "partially-adherent" as their level of adherence may fluctuate over time (36).

5.4.2 Diagnostic Profile

As noted from the results, the differential diagnoses upon discharge in this sample included Substance-Induced Psychotic Disorder, Bipolar Disorder, Schizophrenia and Schizoaffective Disorder. This sample had also received a variety of diagnoses on previous admissions which included Schizophrenia, Bipolar Disorder, Schizoaffective Disorder and Major Depressive Disorder. Of note, only 8.82% (N=3) of users were diagnosed with Schizoaffective Disorder in their previous admissions. This variation in diagnoses over time was also highlighted in the study by Vollmer-Larsen et al (14). They noted that of the 37 MHCUs previously diagnosed using ICD-8, 16 had between 3 and 5 different diagnoses previously and 4 had been diagnosed as having both Schizophrenia and an affective disorder previously. Vollmer-Larsen et al also observed that of the 9 MHCUs previously diagnosed as having Schizoaffective Disorder using ICD-8, only 4 maintained this diagnosis.

Schwartz et al prospectively assessed 547 MHCUs with a first admission for psychosis at 6 and

24 months and found that Schizoaffective Disorder was one of the least stable diagnoses at 36% (11). They concluded that factors such as the evolution of the illness, new information being presented and poor reliability of diagnoses made cross-sectionally all contributed to diagnostic instability over time. Considering the ambiguity of the DSM-IV criteria for this disorder as well as diagnoses historically being made categorically and often without considering the longitudinal aspects of a user's presentation, it is not surprising that Schizoaffective Disorder has historically had poor reliability and diagnostic stability.

The American Psychiatric Association (APA) seems to have heeded some of these concerns as noted in the proposed revisions for Schizoaffective Disorder in the upcoming DSM 5 (37). Firstly, they have changed Criterion B such that one is required to look at the 'lifetime duration of the illness' (as opposed to 'same period of illness' in DSM IV-TR) in which there is at least a 2 week history of delusions or hallucinations in the absence of a 'major mood episode (depressive or manic)' (as opposed to just 'prominent mood symptoms' as stipulated in DSM IV-TR). They have also specified that the major mood episode should be present for 50% or more of the total duration of time after Criterion A has been met. Additionally, they clarify that 'periods of successfully treated mood symptoms count towards the cumulative duration of the major mood episode.' These proposed changes in DSM 5 are promising and it is hoped that this in conjunction with other factors such as genetic markers will lead to a more robust and stable Schizoaffective Disorder diagnosis in the future.

5.4.3 Treatment Profile

Review articles on the treatment of Schizoaffective Disorder have all made similar criticisms pertaining to research in this area (38, 39, 40, 41, 42). A common concern is that very little research has been done on the treatment of Schizoaffective Disorder alone. Most studies have

included MHCUs with Schizoaffective Disorder in studies of Schizophrenia or Bipolar Disorder. Also, a lot of the results in this regard are based on post-hoc analyses which bring the reliability of the conclusions drawn into question. These study samples have also being noted to be markedly heterogeneous in terms of different diagnostic criteria being used to make the diagnosis (RDC, ICD, DSM IV etc) and different subtypes of the disorder being considered. All these review articles correctly note that despite Schizoaffective Disorder being seen as a distinct diagnosis in DSM IV-TR, no specific treatment guidelines exist for this disorder. The conclusions drawn from these review articles have been similar. Atypical antipsychotics (Ziprasidone, Olanzapine, Risperidone, Quetiapine and Clozapine) as well as the typical antipsychotics (Fluphenazine and Haloperidol) are considered the treatments of choice. Mood Stabilisers (Lithium and Carbamazepine in particular) in combination with the above-mentioned antipsychotics are also deemed to be reasonable treatment options. The literature suggests that deciding on whether to put a MHCU on an antipsychotic alone or in combination with a mood stabiliser should be guided by the clinical presentation being dominated either by psychotic or affective symptoms respectively. Antidepressants may be used adjunctively in circumstances where the depressive symptoms do not respond adequately to the antipsychotic alone.

The findings of this study are in keeping with the above recommendations as all users in this study were on at least 1 antipsychotic, of which the atypical antipsychotic Risperidone was most commonly prescribed (40%, N=18). Also, the majority of the users in this study (80%, N=36) were on a combination of at least 1 antipsychotic and at least 1 mood stabiliser. Of note, Sodium Valproate was the most commonly prescribed mood stabiliser (60%, N=27) in this study, yet information in the literature regarding the use of Sodium Valproate in Schizoaffective Disorder MHCUs is scant.

5.5 Diagnoses Generated by OPCRIT

In this study, the most common diagnosis generated by OPCRIT was Psychosis Not Otherwise Specified (26.67%, N=12) while the Schizoaffective Disorder diagnosis was allocated by OPCRIT for 24.44% (N=11) of users. If one considers all that has already been discussed regarding the ambiguities and complexities involved in arriving at a diagnosis of Schizoaffective Disorder, it is not surprising that the most common diagnosis generated by OPCRIT in this study was Psychosis Not Otherwise Specified (26.67%, N=12) rather than Schizoaffective Disorder. However, equal weighting in this respect should also be accorded to the fact that retrospective data was entered into the OPCRIT program and that we should therefore accept that the results produced are determined largely by the adequacy of the information recorded in the files. Vollmer-Larsen's study reports only on the ICD 10 and not the DSM IV diagnoses generated by OPCRIT and it is therefore not possible to make a comparison with their study (14).

However, what is noteworthy is that Vollmer-Larsen et al point out that, "The OPCRIT checklist is the best available, but not ideal for diagnosing Schizoaffective Disorder." Certainly, it would have been more useful to supplement the OPCRIT with a clinical interview of these users and make a consensus best-estimate lifetime diagnosis of Schizoaffective Disorder.

5.5 a) Exploratory Analysis

Examining which of the information required by OPCRIT was most absent in the records of these users was not a primary objective of this study. Nonetheless, when considering that there was no agreement between the clinician and OPCRIT, it was deemed worthwhile to explore possible reasons for this. This information was only available for 44 of the 45 users.

5.5 b) The Most Common Variables in OPCRIT for which Data was Lacking

Particularly relevant to this study was that the second most common variable for which data was absent was that of '*relation between mood and psychotic symptoms'*. This information was absent for 27.27% (N=12) of the users. For this variable, '*relation between mood and psychotic symptoms*,' OPCRIT requires that one selects from the following options: 0) there is no occurrence; 1) psychotic symptoms dominate the clinical picture although occasional affective disturbance may occur; 2) psychotic and affective symptoms are balanced but delusions or hallucinations have occurred for at least 2 weeks without prominent mood symptoms; and 3) affective symptoms predominate although psychotic symptoms may also occur. According to the OPCRIT guidelines on rating the items, the general rule is that if one is uncertain, one should be conservative and rate down. The guidelines also mention that missing or unrated items are treated by the scoring program as zeros. One can therefore surmise that the absence of this data which was critical for the diagnosis of Schizoaffective Disorder influenced the diagnoses generated by OPCRIT.

5.6 Agreement between Clinician and OPCRIT

As noted in the results, this study revealed that there was no agreement between the clinicians' diagnosis and the OPCRIT diagnosis for these users. These findings are somewhat similar to those of the Vollmer-Larsen study which found that no users met the DSM IV criteria for Schizoaffective Disorder on a lifetime basis (14). The advantage of Vollmer-Larsen's study over this one is that in addition to using OPCRIT, they also had 2 psychiatrists review the users' files and reach a consensus about their diagnoses. However, one needs to bear in mind that the Vollmer-Larsen study incorporated MHCUs that were given a discharge diagnosis of Schizoaffective Disorder either on an episode or a lifetime basis, but they specifically rated

these users on whether they met the criteria for the disorder on a lifetime basis only. Given that they were able to do this on a lifetime basis using retrospective case notes implies that they had adequate and relevant information to do so. Their justification for rating on a lifetime basis is that according to ICD 10 and DSM IV, the diagnosis of Schizoaffective Disorder should only be made after considering the whole illness pattern.

In this study, it was not possible for the researcher to draw a conclusion about whether these users met DSM IV criteria for Schizoaffective Disorder on a lifetime basis due to insufficiency of the information in the files. As such, data entered into OPCRIT was on an 'other specified episode or time period' basis to allow for a period of illness for which most information was available as opposed to a 'lifetime ever occurrence of symptoms and signs' basis. However, it is worth noting that when the exact information was entered into OPCRIT, but the 'lifetime ever occurrence of symptoms and signs' option was selected, this did not alter the diagnoses generated by OPCRIT in any of the cases. This is most likely because the diagnoses generated by OPCRIT are dependent on many variables and not just a single item.

One may deem this study's finding of no agreement between the clinicians' and OPCRIT diagnoses as trivial as the findings are based largely on lack of information in the users' files as well as there being no ideal research tool to conclusively and confidently diagnose Schizoaffective Disorder. However, one should also consider the underlying implications of this finding which reverts to the earlier review of the literature. Firstly, this disorder is thought to be rare, poorly understood and definitely inadequately studied. As a result, the current available DSM IV criteria for the disorder are ambiguous and therefore open to interpretation by clinicians. Vollmer-Larsen et al reported on some of the most common reasons for MHCUs being incorrectly diagnosed with Schizoaffective Disorder according to ICD 10 (14). These included: a) diagnosing Schizoaffective Disorder in users whose affective symptoms were superimposed on

pre-existing Schizophrenia; b) users with an affective disorder being misdiagnosed as Schizoaffective Disorder due to the presence of co-morbid psychotic symptoms; c) lack of temporal relation between affective and psychotic symptoms and d) some users having significant organic and substance use backgrounds that could account for their symptoms. This brings to light the urgent need for further research hopefully culminating in better understanding and diagnosis of Schizoaffective Disorder.

5.7 Limitations

This study has many limitations. Firstly, a retrospective record review is not ideal for this type of study as the results and conclusions depend greatly on the quality of the information in the files. Many of the users in the study sample had had numerous psychiatric admissions to Helen Joseph Hospital but not all the notes of all these admissions were found. The data was therefore collected using the admission that had the most complete and detailed information.

Besides there being an inadequate amount of information, it was also noted that histories and mental state examinations were done by medical students as well as by medical officers and registrars in different stages of their psychiatric training and therefore with different degrees of experience and accuracy in assessing these users. Of specific relevance to this study, the researcher often had to make inferences about the temporal relationship between mood and psychotic signs and symptoms as these were often not clearly stated in the files. This of course could influence the results. Also, there was often little detail about possible confounding factors such as the impact of substance use disorders as well as pre-existing and co-morbid medical conditions.

Another important limitation of this study is the notably small sample size. Considering that Schizoaffective Disorder is thought to be rare, a very large sample size was not anticipated

.

However, the initial study period was supposed to be from 2004 to 2007, but this was extended to 2010 to try and increase the sample size. Unfortunately, despite approximately 90 users identified as being diagnosed with Schizoaffective Disorder between 2004 and 2010, only 45 of these users' records were actually found. This small sample size therefore precludes any meaningful interpretations or conclusions being made from these results.

Adding to the limitations, the researcher had no experience with the use of the OPCRIT checklist prior to this study. This does of course bring in to question the validity of the results obtained from OPCRIT. That being said, cognisance should also be taken of the instructions provided by OPCRIT version 4.0 which state: "The package is specifically for the needs of the researcher and is intended to be used by clinicians or investigators trained in clinical research. It is not recommended for use by raters without previous experience in psychopathology and psychiatric diagnosis" (Appendix D). The instructions also recommend that if one is unfamiliar with OPCRIT, the 90 questions program should be used initially. This allows for data to be entered item by item and if one is uncertain about what the question requires, a simple click on the adjacent information button provides guidance in this respect. It is therefore hoped that the researcher's clinical experience with psychopathology as well as the use of the guided 90 question OPCRIT program adequately addresses this concern.

5.8 Conclusion and Recommendations

Even though this study was done retrospectively and on a very small sample, the profile of users in this study is in some ways akin to that of the Schizoaffective Disorder users described in more contemporary international literature. These similarities include a female preponderance of individuals with impaired social, occupational and interpersonal functioning who have been given a wide variety of diagnoses over time. The current concept of Schizoaffective Disorder is

quite disparate from the 9 cases originally illustrated by Jacob Kasanin in 1933. However, what Kasanin has provided us with is the reality that there is a subset of MHCUs that do not fit into the once popular, neat, dichotomous categories of having either a psychotic disorder or a mood disorder. For decades this subset of users has sparked confusion and controversy and as such, has been neglected in psychiatric research. Fortunately, interest in the Schizoaffective Disorder construct has been gaining momentum in recent times and attempts have been made to demystify the illness. However, we are not yet at the juncture where we can make firm conclusions or give clear guidelines about the disorder based on the current available evidence.

It is therefore recommended that more research be done in this field. In South Africa in particular, very little, if any, research has been done on this disorder. South Africa has a rich heritage of people with differing cultures, ethnicities and socio-economic backgrounds. Research on Schizoaffective Disorder in South Africa to determine whether the epidemiology, illness pattern, treatment response and outcomes vary in this diverse population may therefore prove useful. Most studies, even those done internationally, incorporate Schizoaffective Disorder MHCUs in studies that are focusing primarily on users with Schizophrenia or Bipolar Disorder. As a result, this subset of MHCUs has never received the individual research attention it requires and hence little is understood about the disorder. Of course, attempting to conduct research on Schizoaffective Disorder alone may prove quite complex due to the current vague criteria for the disorder that is open to interpretation. It is hoped that this problem will be eliminated with the advent of the revised DSM 5 criteria for Schizoaffective Disorder.

Future research should perhaps examine this group of MHCUs diagnosed with Schizoaffective Disorder longitudinally and follow them up prospectively to be able to more accurately describe their demographic, clinical and treatment profile. It is also anticipated that greater light will be shed on the disorder with advances in the exploration of biomarkers for psychiatric illnesses.

Ideally, all those involved in the care, treatment and rehabilitation of mental health care users should be trained on the importance of proper history-taking, note-keeping and assessment of these users so as to facilitate more accurate diagnoses and tailored management plans.

The age-old debate on whether Schizoaffective Disorder exists at all does not change the fact that there will always be those mental health care users that appear to have a mixture of Bipolar Disorder and Schizophrenia. Whatever name we eventually choose to call them by, we should do so based on a dimensional approach to their symptom presentation and sound evidence. It is hoped that this in combination with an unequivocal definition of the disorder will enhance the understanding and therefore, the long-term treatment and outcome of those diagnosed with Schizoaffective Disorder.

APPENDIX A

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Singh

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER M080501**
PROJECT	Schizoaffective disorder in an Acute Psychiatric Unit: Profile of Users and Agreement of Diagnosis with Operational Criteria (OPCRIT)
INVESTIGATORS	Dr RR Singh
DEPARTMENT	Psychiatry
DATE CONSIDERED	08.05.30
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 09.04.29 **CHAIRPERSON** .....
(Professor P E Cleaton Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Dr A Janse van Rensburg

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...

APPENDIX B

Data Collection Sheet

Age	----------		
Gender	0-male	1-female	
Marital status	0-married	1-single	
Number of years of education	----------		
Occupational status	0-unemployed	1-employed	
Disability grant	0-no	1-yes	
Age at onset of mental illness	----------		
Axis I diagnosis on discharge	----------		
Differential Axis I diagnosis	----------		
Specify subtype:	0-bipolar	1-depressive	
Previous psychiatric diagnoses	----------		
Number of previous hospitalizations	----------		
Duration of most recent hospitalisation (days)	----------		
Family history of mental illness	0-no	1-yes	2-unknown
If yes, specify if possible	----------		

Substance history 0-no 1-yes 2-unknown

Treatment adherence on admission 0-no 1-yes 2-unknown

Treatment on discharge:

a) Antipsychotics 0-no 1-yes

If yes, how many 1 2 3 and

Specify 0-typical 1-atypical

Drug name and dosage ----------

Drug name and dosage ----------

Drug name and dosage ----------

b) Mood stabiliser 0-no 1-yes

If yes, how many 1 2 3 and

Drug name and dosage ----------

Drug name and dosage ----------

Drug name and dosage ----------

c) Antidepressant 0-no 1-yes

If yes, how many 1 2 3 and

Drug name and dosage ----------

Drug name and dosage ----------

Drug name and dosage ----------

Other drug(s), specify name and dosage ----------

Follow up plan ----------

APPENDIX C

Opcrit for Windows (v4), Item Checklist.

Details & History

1	Source of Rating	(1-6)	
2	Time Frame	(1-4)	
3	Gender	(0,1)	
4	Age of onset		
5	Mode of onset	(1-5)	
6	Single '(subject never married / lived as married)'	(0,1)	
7	Unemployed at onset	(0,1)	
8	Duration of illness in weeks (max=99)		
9	Poor work adjustment	(0,1)	
10	Poor premorbid social adjustment	(0,1)	
11	Premorbid personality disorder	(0,1)	
12	Alcohol/drug abuse within one year of onset of psychotic symptoms	(0,1)	
13	Family history of schizophrenia	(0,1)	
14	Family history of other psychiatric disorder	(0,1)	
15	Coarse brain disease prior to onset	(0,1)	
16	Definite psychosocial stressor prior to onset	(0,1)	

Appearance & Behaviour

17	Bizarre behaviour	(0,1)	
18	Catatonia	(0,1,2)	
19	Excessive activity	(0,1,2,3)	
20	Reckless activity	(0,1,2,3)	
21	Distractibility	(0,1,2,3)	
22	Reduced need for sleep	(0,1,2,3)	
23	Agitated activity	(0,1,2,3)	
24	Slowed activity	(0,1,2,3)	
25	Loss of energy/tiredness	(0,1,2,3)	

Speech & Form of Thought

26	Speech difficult to understand	(0,1)	
27	Incoherent	(0,1,2)	
28	Positive formal thought disorder	(0,1,2)	
29	Negative formal thought disorder	(0,1,2)	
30	Pressured speech	(0,1,2,3)	
31	Thoughts racing	(0,1,2,3)	

Affect and Associated Features

32	Restricted affect	(0,1,2)	
33	Blunted affect	(0,1,2)	
34	Inappropriate affect	(0,1,2)	
35	Elevated mood	(0,1,2,3)	
36	Irritable mood	(0,1,2,3)	
37	Dysphoria	(0,1,2,3)	
38	Diurnal variation (mood worse mornings)	(0,1)	
39	Loss of pleasure	(0,1,2,3)	
40	Altered libido	(0,1,2)	
41	Poor concentration	(0,1,2,3)	
42	Excessive self reproach	(0,1,2,3)	
43	Suicidal ideation	(0,1,2,3)	
44	Initial insomnia	(0,1,2,3)	
45	Middle insomnia (broken sleep)	(0,1)	
46	Early morning waking	(0,1,2,3)	
47	Excessive sleep	(0,1,2,3)	
48	Poor appetite	(0,1,2,3)	
49	Weight loss	(0,1,2,3)	
50	Increased appetite	(0,1,2,3)	
51	Weight gain	(0,1,2,3)	
52	Relationship between psychotic and affective symptoms	(0,1,2,3)	
53	Increased sociability	(0,1,2,3)	

Abnormal Beliefs and Ideas

54	Persecutory delusions	(0,1,2)	
55	Well organised delusions	(0,1,2)	
56	Increased self esteem	(0,1,2,3)	
57	Grandiose delusions	(0,1,2,3)	
58	Delusions of influence	(0,1,2)	
59	Bizarre delusions	(0,1,2)	
60	Widespread delusions	(0,1,2)	
61	Delusions of passivity	(0,1,2)	
62	Primary delusional perception	(0,1,2)	
63	Other primary delusions	(0,1,2)	
64	Delusions & hallucinations last for one week	(0,1,2)	
65	Persecutory/jealous delusions & hallucinations	(0,1,2)	
66	Thought insertion	(0,1,2)	
67	Thought withdrawal	(0,1,2)	
68	Thought broadcast	(0,1,2)	
69	Delusions of guilt	(0,1,2,3)	
70	Delusions of poverty	(0,1,2,3)	
71	Nihilistic delusions	(0,1,2,3)	

Abnormal Perceptions

72	Thought echo	(0,1,2)	
73	Third person auditory hallucinations	(0,1,2)	
74	Running commentary voices	(0,1,2)	
75	Abusive/accusatory/persecutory voices	(0,1,2)	
76	Other (non affective) auditory hallucinations	(0,1,2)	
77	Non-affective hallucination in any modality	(0,1,2)	

Substance Abuse or Dependence

78	Life time diagnosis of alcohol abuse/dependence	(0,1)	
79	Life time diagnosis of cannabis abuse/dependence	(0,1)	
80	Life time diagnosis of other abuse/dependence	(0,1)	
81	Alcohol abuse/dependence with psychopathology	(0,1)	
82	Cannabis abuse/dependence with psychopathology	(0,1)	
83	Other abuse/dependence with psychopathology	(0,1)	

General Appraisal

84	Information not credible	(0,1)	
85	Lack of insight	(0,1)	
86	Rapport difficult	(0,1)	
87	Impairment/incapacity during disorder	(0,1,2,3)	
88	Deterioration from premorbid level of functioning	(0,1)	
89	Psychotic symptoms respond to neuroleptics	(0,1)	
90	Course of disorder	(1-5)	

APPENDIX D

OPCRIT 4 WINDOWS

THE OPCRIT CHECKLIST AND PROGRAMS (VERSION 4.0)

The operational criteria OPCRIT checklist for psychotic and affective illness has been designed to facilitate a polydiagnostic approach to mental illness. The package is specifically for the needs of the researcher and is intended to be used by clinicians or investigators trained in clinical research. It is not recommended for use by raters without previous experience in psychopathology and psychiatric diagnosis.

In version 4.0, the items contained within the checklist allow classification of subjects according to the functional psychosis and affective disorder categories in DSM-IV, DSM-III, DSM-IIIR, ICD-10 research criteria, the St. Louis criteria (Feighner et al), the Research Diagnostic Criteria (Spitzer et al) and the criteria of Taylor and Abrams. OPCRIT also allows the diagnosis of schizophrenia to be made according to the 'flexible' criteria of Carpenter et al, and the first rank symptoms of Schneider. Where appropriate, a classification into schizophrenia subtypes is made using the systems of Tsuang and Winokur, Crow and Farmer et al.

A classification approximating to the French concepts of non-affective functional psychosis has been incorporated based on the descriptions published by Pichot and by C. Pull et al.

Using OPCRIT 4 Windows

The Windows version has been designed to be straightforward to use. There is no manual as such but help can be obtained on most of the control buttons by right clicking.

Guidelines for rating

OPCRIT checklist ratings can be based on hospital case notes (charts), prepared abstracts, or on written material supplemented by personal interview. Obviously the quality of the source information will have a direct bearing on diagnostic accuracy. The checklist is not designed to be used with any specific interview although all of the items from OPCRIT have been incorporated in the Diagnostic Interview for Genetic Studies (DIGS).The Diagnostic Interview for Psychosis (DIP) which follows the overall OPCRIT format is currently under development by Jablensky and colleagues.

Psychotic symptoms may be rated on a lifetime ever or on an episode by episode basis. However it is recommended that affective symptoms are rated for specific episodes.

Data can be entered by clicking on the ‘spreadsheet’ or ’90 questions’ buttons (using routines that correspond to the ‘by-line’ and the ‘by-item routines in the older DOS versions). Data from DOS versions can also be imported. There are now routines for exporting diagnostic results and labelled items to SAS, SPSS and STATA.

A score of 1 on those items having a '0,1' scoring format, means that particular item is

present, otherwise specific scoring instructions are given. A definition of every item is can be obtained in the '90 questions' program by clicking on the 'i' (information) button.

In rating OPCRIT items the general rule is that if you are in doubt you should be conservative, and rate down. Missing or unrated items are treated by the scoring program as zeros. Because OPCRIT includes several different classifications some of the descriptions of symptoms overlap. The specification of items, where possible, follows the descriptions provided by the authors of the various criteria. Otherwise the specification of signs and symptoms follow the description in standard texts and take as a model the glossary of the Present State Examination of Wing et al.

Compared to earlier versions (OPCRIT 2.X) versions 3.X and onwards have included a number of new items, some of which are unnecessary just to arrive at operational diagnoses. However, they are included to provide a more complete 'minimum data set'. For example although items concerning drug/alcohol/substance abuse, coarse brain disease and psychosocial stress are included in this version of OPCRIT, these are not taken into account in the diagnostic algorithms. However, the OPCRIT diagnostic screen will highlight those individuals who have one or more of these potentially confounding factors.

(1) If you are unfamiliar with the OPCRIT system it is best to start with the '90 questions' program which allows you to enter the data item by item and provides help on the adjacent 'i' button..

(2) Once you are familiar with the specifications you have the option of recording your ratings first on the OPCRIT coding sheets (which can be printed out from within the OPCRIT program) and then transfering them to the computer using the 'spreadsheet' program.

This Windows version OPCRIT (4.0) is on general release for the first time as of October 2004. If you mention use of OPCRIT in papers or grant applications please cite one or both of the following :

McGuffin P, Farmer AE, Harvey I. A polydiagnostic application of Operational Criteria in Studies of Psychotic Illness: Development and reliability of the OPCRIT system. Archives of General Psychiatry 1991;48:764-770.

Williams J, Farmer AE, Ackenheil M, Kaufmann CA, McGuffin P. A multicentre reliability study of the OPCRIT computerised diagnostic system. Psychological Medicine 1996;26:775-783.

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