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Unipolar mania reconsidered: evidence from a South African study

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Abstract

Objective: There is a lack of studies that examine prevalence and phenomenology of bipolar disorder in Africa. In literature, a unipolar manic course of illness in particular is reported to be rare. The purpose of this study was to investigate and describe the course of illness and clinical features for a cross-section of patients diagnosed with bipolar disorder attending public hospitals in Limpopo Province, South Africa and to determine the rate of a unipolar manic course in this sample of patients. **Method:** This was a descriptive, cross-sectional study of patients presenting with a history of mania between October 2009 and April 2010, to three hospitals in Limpopo Province. A purposeful sample of 103 patients was recruited and interviewed using the Affective Disorders Evaluation. Results: This study confirms that a unipolar manic course is indeed much more common than occurrences suggested in present day literature, with 57% of the study sample ever experiencing manic episodes. Patients presenting with a unipolar manic course of illness, as described in this study, may contribute to the search for an etiologically homogeneous sub-group, which presents a unique phenotype for genetic research and the search for genetic markers in mental illness. With a view to future research, a unipolar manic course therefore needs to be considered as a specifier in diagnostic systems in order to increase the awareness of such a course of illness in bipolar disorder. **Conclusion:** Fifty seven percent (57%) of study subjects had only ever experienced manic episodes, which is in keeping with findings from Africa and other non-Western countries. Identifying etiologically homogenous subgroups in psychiatry can also aid the profession in developing a reliable and valid nosology for psychiatric disorders. We need to consider a unipolar manic course at least a specifier in DSM and ICD.

Keywords: Mood disorders; Bipolar disorder; Recurrent; Mania; Unipolar mania

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Introduction

There is a scarcity of studies examining prevalence and phenomenology of bipolar disorder in Africa[1]. In literature, a unipolar manic course of illness in particular is reported to be rare[2]. The purpose of this study was to investigate and describe the course of illness and the clinical features in patients diagnosed with bipolar disorder attending three public hospitals in Limpopo Province, South Africa and to determine the rate of a unipolar manic course in this sample.

The idea for studying bipolar disorder and in particular unipolar mania in South Africa came about in 2006 while the first author was working at Mokopane Hospital, a hospital in rural South Africa, where he noticed that the number of patients presenting with manic symptoms with a diagnosis of bipolar disorder, far outnumbered those presenting in the depressive phase of the illness. In fact, most patients seemed to have a recurrent unipolar manic course; the mania accompanied by severe psychotic symptoms of a schizophrenic nature from the onset of the illness. Furthermore, these patients seldom presented to hospital or out-patient clinics with symptoms of depression.

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Unipolar mania

In 1966 Angst[3] and Perris[4], were the first to report on the entity of unipolar mania. Both Angst and Perris claimed that unipolar depression and bipolar disorders were distinct entities[5] and that unipolar mania was strongly related to bipolar disorder. In general, the occurrence of a manic only course in bipolar patients is estimated to be in the region of 10% to 20% [2], but rates have been found to vary substantially from a low of 1,1% [6] to a high of 65,3% [7].

Lee and Yu[8], in response to a study by Shulman and Tohen[9], asserted in their letter to the British Journal of Psychiatry that there was sufficient evidence of a higher prevalence of unipolar mania in non-Western cultures such as Africa, China and India.

On separating the study findings of Western vs. non-Western countries, an interesting discrepancy emerges with regard to the rate of unipolar mania. Table 1 reflects findings from Western countries and Table 2 reflects results from studies from non-Western countries.

The studies from Africa in particular seems to point towards an increased occurrence of a unipolar manic course in bipolar patients[7,23,25].

Bipolar disorder research in African, African-Caribbean and African-American patients in the UK and the USA

It would appear from studies of bipolar disorder in African, African-Caribbean and African-American patients in both

Table 1: Findings on unipolar mania for Western Countries				
Author	**Country**	**Year**	**Definition**	**Rate of Unipolar Mania**
Perris [4]	Sweden	1966	≥ 1 manic episode, no depressive episodes	4,5%
Abrams & Taylor [10]	USA	1974	"never had a depressive episode"	28%
Abrams et al. [11]	USA	1979	2 manic episodes with no depressive episodes	18%
Nurnberger et al. [12]	USA	1979	≥ 1 manic episode with no treatment for depression	15,7%
Perris [6]	Sweden	1982	≥ 1 manic episode, no depressive episodes	1,1%
Pfohl et al. [13]	USA	1982	≥ 1 manic episode, no depressive episodes	33,6%
Shulman & Tohen [14]	Canada	1994	3 manic episodes with no depressive episodes and 10 years elapsed since hospitalisation for 1st manic episode	12%
Solomon et al. [15]	USA	2003	No depressive episode in 15- year prospective follow-up study of manic patients	16,5%
Perugi et al. [16]	Italy	2007	≥ 3 manic episode, 10 years of illness with no depressive episodes	21,8%
Average				**16,8%**

Table 2: Findings on unipolar mania for non-Western countries				
Author	**Country**	**Year**	**Definition**	**Rate of Unipolar Mania**
Srinivasan et al. [17]	India	1985	≥ 3 manic episode, no depressive episodes	40%
Makanjuola [18]	Nigeria	1985	≥ 2 manic episode, no depressive episodes	53%
Khanna et al. [19]	India	1992	≥ 4 manic episode, no depressive episodes	44%
Lee [20]	China	1992	≥ 2 manic episode, no depressive episodes	36%
Aghanwa [21]	Fiji Islands	2001	≥ 3 manic or hypomanic episodes, no depressive episodes and affective illness of at least 4 years	47,2%
Yazici et al. [22]	Turkey	2002	≥ 4 manic episode, no depressive episodes in 4 year follow-up	16,3%
Negash et al. [23]	Ethiopia	2005	Non report of depressive episode in a community-based study	59,8%
Dakhlaoui et al. [7]	Tunisia	2008	≥ 2 manic episodes without depression	65,3%
Andrade-Nascimento et al. [24]	Brazil	2011	Only manic episodes with no history of depression and duration of illness ≥ 15 years	5,4%
Average				**40,78%**

the UK and the USA that they are less likely than Caucasian patients to experience depressive episodes before the onset of first mania, experience more severe psychotic symptoms at first mania[26], and are more likely to be misdiagnosed as having schizophrenia[27].

A number of studies have found that there seems to be an increased occurrence of psychosis among African-Caribbean people living in the UK[28,29] as well as an increased occurrence of mania. Leff et al. reported that the African-Caribbean population more often displayed mixed manic and schizophrenic symptoms[30]. In fact, Van Os et al. calculated that the occurrence for mania among African-Caribbean people in Camberwell, South London, was approximately three times that of the white group in their study[31].

Kirov and Murray conclude from a South London study "there may be genuine differences between ethnic groups in the form of presentation of bipolar disorder"[32].

In contrast, Caucasian subjects in studies conducted in Europe and the USA seemed to spend far more time with depressive symptoms than with mania in the course of their illness as shown by Angst [33] and Judd et al.[34].

Lloyd et al. found in the AESOP (Aetiology and Ethnicity of Schizophrenia and Other Psychoses) study in the UK, a multi-centre population-based study of first-episode psychosis, that the incidence of bipolar disorder was higher among black and minority ethnic groups than in the white population[35]. Dean et al in the same study concluded that African-Caribbean ethnicity was independently associated with aggression and that aggression was associated with a diagnosis of mania[36].

There appears to be no doubt that bipolar disorder presents differently in patients of African descent.

Genetic implications of unipolar mania and schizoaffective disorder

To our knowledge, the genetics of unipolar mania has never been studied but considering the historical origins of the concept of schizoaffective psychosis and its pivotal position in nosology, the genetics involved deserves particular interest.

Unipolar mania in the African context can arguably be very similar to schizoaffective disorder. However, considering criterion B in the DSM-IV-TR criteria for schizoaffective disorder "During the same period of illness, there have been delusions or hallucinations for at least 2 weeks in the absence of prominent mood symptoms"[37], the bipolar patients with a unipolar manic course do not fulfil this particular criterion as the psychotic symptoms disappears with resolution of the mood symptoms.

Three studies during the 1970s and 1980s investigated the risk of psychosis in first-degree relatives of probands with schizoaffective illness. Angst found the risk of schizophrenia and affective disorder to be approximately equal in first-degree relatives of schizoaffective probands and the risk of schizoaffective illness less than that of either of the prototypical psychotic illnesses[38]. In two other studies, one by Tsuang[39] and the other by Baron[40], schizoaffective disorder was found to be more closely related to affective

illness than schizophrenia, both authors concluding that schizoaffective illness is genetically not separate from the major psychoses.

These findings led to the continuum theory in the 1980s, which was strongly endorsed by several authors who argued that the psychoses are represented on a continuum from pure affective illness to deteriorating schizophrenia[41,42].

Crow argues that schizoaffective disorder, schizophrenia and bipolar disorder represent a spectrum of variation at a single genetic locus that regulates severity of symptoms irrespective of diagnosis[43].

Lake and Hurwitz take the continuum theory one step further, viewing the concept of a continuum as consistent with a single disease and arguing that this single disease is a mood disorder that can account for the symptoms typically assigned the diagnoses of schizoaffective disorder or schizophrenia[44].

In the largest family study from a Swedish population of bipolar disorder and schizophrenia ever conducted, overlap in genetic susceptibility across bipolar and schizophrenia is shown[45]. A genome-wide association study of European individuals provides compelling evidence that the aggregate polygenic contribution of many alleles of small effect adds to susceptibility for schizophrenia but also influences susceptibility to bipolar disorder[46].

Recent studies of de novo copy-number variants (CNV's) indicate that they may also have an influence on the risk for developing bipolar disorder albeit slightly less so than for schizophrenia[47].

Hamshere maintains "cases with a rich mixture of clinical features of bipolar mood episodes and the psychotic symptoms typical of schizophrenia (a broadly defined schizoaffective illness) may be particularly useful for genetic studies"[48]. Defining accurate phenotypes in psychiatric genetics is important for future research in disentangling the ethiopathogenesis of these illnesses.

Method

Purpose of the study

The purpose of this study was to investigate and describe the course of illness and clinical features in a cross-section of patients diagnosed with bipolar disorder and attending three public hospitals in Limpopo Province, South Africa. From this information, we wanted to determine the occurrence of a unipolar manic course in this specific sample. If unipolar mania is found to be as prevalent in South Africa as in the rest of Africa, it may have diagnostic and treatment implications, as well as implications for genetic research.

Study design

Descriptive, cross-sectional study.

Methodology

A purposeful sample of 103 patients presenting with a history of mania between October 2009 and April 2010, in three hospitals in the Limpopo Province was recruited and interviewed using the Affective Disorders Evaluation (ADE) [49].

Hospitals included in the study

Mankweng Hospital is part of the Polokwane-Mankweng Hospital Complex (PMHC) situated in the Capricorn District of Limpopo Province, Mokopane Hospital is a regional hospital in the Mokgalakwena Municipality of the Waterberg area of Limpopo Province and George Masebe Hospital is a district hospital in the Waterberg area and renders a service to the local community, which consists of Bakenberg and Rebone.

Ethical considerations

Ethical approval for the study (protocol number 136/2009) was obtained on 26/08/2009 from the University of Pretoria, Faculty of Health Sciences Research Ethics Committee. The Limpopo Department of Health and Social Development Research Ethics Committee granted permission on 04/11/2009 to continue with the study.

Patients admitted under the Mental Health Care Act as either assisted or involuntary patients were not requested to participate in the study until such time that they were deemed able to give informed consent and provide an adequate history. Personal information, names and file numbers of patients were handled with utmost confidentiality but were documented for future reference, follow up and verification of information.

For further information regarding the informed consent, see PhD dissertation with title "A Cross-Sectional Descriptive Study Of Clinical Features And Course Of Illness In A South African Population With Bipolar Disorder" at the following website; http://upetd.up.ac.za/UPeTD.htm.

Measuring instrument

The Affective Disorder Evaluation (ADE)[49] was completed by the researcher for every study subject. The researcher was assisted by registered nurses fluent in Northern Sotho, who translated the questions to non-English-speaking participants.

The ADE is a standardised tool for initial clinical assessment of patients possibly suffering from bipolar disorder. Developed for the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD), the main objective of the ADE is to provide an efficient way of making a reliable current and lifetime diagnosis of bipolar disorder[50]. The ADE uses an adaptation of the mood disorder modules from the Structured Clinical Interview for DSM-IV (SCID)[51]. These modules assess current mood episode and lifetime mood disorder diagnoses and flow in an orderly sequence designed to reflect the DSM-IV mood disorder classification.

Sample size

The sample size was calculated with the objective of prevalence of a unipolar manic course determination in mind. Under the assumption that the expected prevalence of a unipolar manic only course in the study population is 35%, a sample size of 88 patients was considered to be able to estimate the prevalence to an accuracy of 10% with 95% confidence.

Data analysis

The data summary covered descriptive statistics like mean and standard deviation for continuous variables whilst for categorical variables (nominal and ordinal) use was made of proportion, percentages and cross-tables for subgroup, e.g. sex, age categories etc., employed hazard ratios. Testing was done at the 0,05 level of significance.

Definition of recurrent unipolar mania

One of the challenges in the research of recurrent bipolar

mania is the lack of consensus on the defining criteria. In the studies published during the last decade there appears to be some consensus on the presence of at least three manic episodes with no depressive episodes, but there is no consensus on the timeframe for the same[5].

Aghanwa defined "recurrent mania" as three previous episodes of mania or hypomania (ICD-10) and the presence of affective illness for at least four years[21]. On the other hand, Yazici et al. defined recurrent mania by the occurrence of at least four episodes of mania (DSM-IV) and at least four years of follow up without any depressive episode[22].

For purposes of this study, a unipolar manic course was considered in all patients who had never experienced a major depressive episode. However, the occurrence of unipolar mania was also established for those in the sample who was diagnosed with bipolar disorder in particular and had three or more lifetime number of phases without the occurrence of any depressive episodes.

Results

A purposeful sample of 103 patients presenting with a history of mania between October 2009 and April 2010, to the three hospitals in the Limpopo Province was recruited. The mean age was 36,6 years with a standard deviation of 11,9. Sociodemographic characteristics of the sample are given in Table 3.

From the entire sample (n=103), fifty-seven reported ever having experienced only manic episodes. Excluding those with schizoaffective disorder, schizophrenia and substance induced psychotic disorder (n=7), fifty-six percent (53/94) reported ever having experienced only manic episodes. When considering those subjects with three or more episodes of affective illness as possibly having a unipolar manic course of illness, a substantial 44,68% (42/94) appears to have such a course of illness (Table 4).

Patients with a duration of illness of four years or longer and five or more episodes are considered as having a unipolar manic course of illness. 32% (30/94) would still qualify (Table 5). See Table 6 for a comparison of depressive and manic episodes (DAM) vs. manic episodes only (MO).

Discussion

Comparisons between unipolar manic and bipolar groups from studies as referred to earlier seems to yield inconclusive results as to significant differences. Some researchers have observed characteristics specific to patients with unipolar mania as opposed to bipolar disorder. Unipolar mania appears to be more common in men[11,19] and had an earlier age at onset of illness[9,22]. In the present study (as depicted in Table 5) the following differences appeared when comparing the Depressive and manic (DAM) group with the Manic only (MO) group.

The mean age of the MO group was 38,18 years vs. the DAM group at 34,66 years. There were more males in the MO

Table 3: Sociodemographic characteristics of the sample

Variable		Frequency (n = 103)	%
Sex	Male	46	44,66
	Female	57	55,34
Marital status	Single	72	69.9
	Married	24	23.3
	Widowed	5	4.85
	Divorced	2	1.95
Religious affiliation	Zion Christian Church	65	63.11
	Christian	26	25.24
	None	8	7.77
	Other	4	3.88
Education	None	8	7.77
	Primary	14	13.59
	Secondary	55	53.4
	Tertiary	26	25.24
Employment	Employed	12	11.65
	Unemployed	72	69.9
	Retired	5	4.85
	Student	7	6.8
	Self-employed	7	6.8
Financial support	None	1	0.97
	Pension	1	0.97
	Part-time employment	3	2.91
	Full-time employment	13	12.62
	Family	31	30.1
	Social Grant	54	52.43
Axis I diagnosis	Bipolar Disorder	94	91.26
	Schizoaffective disorder	7	6.8
	Schizophrenia	1	0.97
	Substance induced psychotic disorder	1	0.97

Table 4: Episode pattern of the sample			
		Frequency	%
Total Sample (n=103)	Depressive and manic episodes	44	42,72
	Manic only episodes	59	57,58
Excluding Non-bipolar subjects (n=94)	Depressive and manic episodes	41	43,62
	Manic only episodes	53	56,38
Bipolar Disorder (n=94)	Depressive and manic episodes (including manic only episodes but <3 episodes)	52	55.32
	Manic only episodes (≥ 3 episodes)	42	44.68

Table 5: Years since onset of illness vs. number of phases in manic only group					
(n=53)		Years since onset of illness			
Number of phases		1	2	3	≥4
	1-2	4	3	0	3
	3-4	0	0	3	8
	≥ 5	0	0	2	30

group [54% (32/59) vs. 31% (14/44)], which was statistically significant [p=0.028]. This is in keeping with earlier studies showing that unipolar mania appears to be more common in men[11,19] while some showed no statistical difference[16-18] and in one study there were more females compared to males with unipolar mania but not statistically significant[21].

No obvious difference appeared with regard to marital status with 22% (13/59) in the MO group being married vs. 25% (11/44) in the DAM group [p=0.815] and this was in keeping with findings in other studies[21,22].

The rate of unemployment was slightly less in the MO group [67% (40/59)] vs. 72% (32/44) in the DAM group, which still is high for both groups. This is higher than the 33% found in the study by Aghanwa[21]. A possible explanation could be that employment in rural communities is very scarce in this part of South Africa considering that the average unemployment rate for South Africa is 25,53% and 32,46% for Limpopo in particular[52]. Unemployment is most probably related however to the fact that individuals with severe and enduring mental illness are less able to compete in the open labour market because of the nature of their illness as well as stigmatisation[53]. More patients received a disability grant in the MO group (57% (34/59)) vs. 45% (20/44) in the DAM group.

The MO group reported a family history of bipolar mood disorder [54% (32/59) vs. 61% (27/44)] [p=0.548], alcohol abuse [47% (28/59) vs. 52% (23/44) [p=0.692] and suicide [15% (9/59) vs. 18% 8/44)] [p=0.790] less frequently than the DAM group. Abrams and Taylor also found the unipolar manic group to have significantly fewer relatives with affective illness and alcoholism[10]. However, it seems that most other studies found no difference between the two groups with regard to family history of mental illness[7,13,16,18,22].

The MO group also reported having attempted suicide significantly less than the DAM group [16% (10/59) vs. 40% (18/44)], a statistically significant difference [p=0.013] and similar to results from other studies[16,22].

The MO group reported a history of violence more often [50% (30/59) vs. 47% (21/44)] [p=0.843] but had a lesser chance at having a forensic history [28% (17/59) vs. 34% (15/44)] [p=0.668].

Only 3% (2/59) in the MO compared to 15% (7/44) in the DAM group reported being HIV positive which was statistically significant [p=0.036]. Age of onset did not appear to differ dramatically between the two groups.

The MO group reported more psychotic symptoms [delusions: 89% (53/59) vs. 79% (35/44)] [p=0.166], [paranoid ideation: 88% (52/59) vs. 61% (27/44)] [p=0.002] and [hallucinations: 77% (46/59) vs. 63% (28/44)] [p=0.126]. The difference in paranoid ideation was statistically significant [p=0.002]. These findings are generally in keeping with results from other studies. Abrams et al. found their unipolar group to experience more grandiosity[11]. Pfohl also found that the unipolar group experienced significantly more delusions but less hallucinations[13]. In Makanjuola's study, the unipolar group had more grandiose delusions but the difference was not statistically significant[18]. Yazici et al.[22] found the unipolar group to have significantly more psychotic features compared to the bipolar group, as did Perugi et al.[16].

In keeping with the above, it would appear that the MO group tended to be prescribed more anti-psychotics [haloperidol: 54% (32/59) vs. 43% (19/44)] [p=0.321], [zuclopenthixol depot: 49% (29/59) vs. 38% (17/44)] [p=0.321], [risperidone: 23% (14/59) vs. 20%(9/44)] [p=0.812], [clozapine: 10% (6/59) vs. 11% (5/44)] [p=1.000] and fewer mood stabilisers [lithium: 18% (11/59) vs. 25% (11/44)] [p=0.473] and [valproate: 57% (34/59) vs. 59% (26/44)] [p=1.000].

None of the patients in the MO group were on anti-depressants [0% (0/59) vs. 11% (5/44)], a statistically significant difference [p=0.012].

The MO group tended to abuse substances more than the DAM group both with regard to a history of abuse and current abuse:

• History of alcohol abuse [42% (25/59) vs. 36%(16/44)] [p=0.550]

• Current alcohol abuse [13% (8/59) vs. 4% (2/44)] [p=0.183]

• History of cannabis abuse [25% (15/59) vs. 9% (4/44)] was statistically significant [p=0.042]

• Current cannabis abuse [8% (5/59) vs. 2% (1/44)] [p=0.235]

Abrams found the bipolar group to abuse substances

Table 6: Depressive and manic episodes (DAM) vs. Manic episodes only (MO)						
		DAM (n = 44)	%	MO (n = 59)	%	P value
Demographics						
Mean age		34,66	NA	38,18	NA	
Gender	Males	14	31,82	32	54,24	0.028
	Females	30	68,18	27	45,76	
Marital status	Married	11	25,00	13	22,03	0.815
Education	Tertiary	12	27,27	14	23,75	0.819
Employment	Unemployed	32	72,73	40	67,8	0.667
Financial support	Social grant	20	45,45	34	57,63	0.238
History						
Family history of mental illness	Bipolar mood disorder	27	61,36	32	54,24	0.548
	Alcohol abuse	23	52,27	28	47,45	0.692
	Suicide	8	18,18	9	15,25	0.790
History of suicide attempt	Yes	18	40,9	10	16,95	0.013
History of violence	Yes	21	47,72	30	50,85	0.843
Forensic history	Yes	15	34,1	17	28,8	0.668
Medical History						
HIV status	Positive	7	15,91	2	3,39	0.036
Course and clinical features						
Age of onset for mania	≤ 19	12	22,73	11	22,03	0.424
	≥ 20	34	77,23	46	77,97	0.413
Mood elevation features	Paranoid ideation	27	61,36	52	88,14	0.002
	Hallucinations	28	63,64	46	77,97	0.126
	Delusions	35	79,5	53	89,83	0.166
	Increased energy	14	31,82	10	16,95	0.100
Treatment						
Attended Traditional Healer	Yes	27	61,36	39	66,10	0.680
Current medication	Valproate	26	59,09	34	57,63	1.000
	Lithium	11	25,0	11	18,64	0.473
	Haloperidol	19	43,18	32	54,24	0.321
	Zuclopenthixol depot	17	38,64	29	49,15	0.321
	Risperidone	9	20,45	14	23,73	0.812
	Clozapine	5	11,36	6	10,17	1.000
	SSRI's	5	11,36	0	0	0.012
Substances						
Alcohol	Current abuse	2	4,55	8	13,56	0.183
	History of abuse	16	36,36	25	42,37	0.550
Cannabis	Current abuse	1	2,27	5	8,47	0.235
	History of abuse	4	9,1	15	25,42	0.042
Diagnosis, Bipolarity index, CGI						
Comorbid anxiety disorder	Yes	19	43,18	12	20,34	0.017
Bipolarity index	81-100	25	56,81	27	45,76	0.321
	71-80	9	20,45	20	33,90	0.184
	61-70	9	20,45	8	13,56	0.173
CGI	Mild to Moderate	28	63,64	35	59,32	0.343
	Marked to Severe	9	20,45	18	30,51	0.058

more than the unipolar group[11] as did Dakhlaoui[7], however, Andrade-Nascimento[24] found no difference between the two groups and Pfohl[13] found the unipolar manic group were more likely to have a history of substance abuse particularly cannabis and amphetamines.

There appeared to be a significant difference between the two groups in terms of comorbidity with the DAM group twice as likely to have a comorbid anxiety disorder [20% (12/59) vs. 43% (19/44)], a statistically significant finding [p=0.017] and consistent with the results of Andrade-Nascimento et al.[24].

The MO group scored lower on the Bipolarity Index ["81-100": 45% (27/59) vs. 56% (25/44)] [p=0.321] and ["71-80": 33% (20/59) vs. 20% (9/44)] [p=0.184], in general than the DAM group.

There was a tendency for more subjects in the MO group to be scored 'Markedly ill' to 'Severely ill' [30% (18/59) vs. 20% (9/44)], compared with the DAM group [p=0.058].

Study Limitations

The limitations of this study need to be recognised before the implications of the findings are discussed. Language was probably the biggest obstacle in conducting this study and the fact that interpreters had to be used. The difficulties associated with explaining some concepts - particularly eliciting a history of depressive episodes - were also certainly a limitation. Eliciting a traditional African presentation of depression may be particularly challenging in South Africa[54,55]. In more traditional societies the symptoms of depression are more likely to be delivered metaphorically or symbolically as idioms of distress, linguistic images, metaphors and associative phrases. However, the way the ADE[49] is designed and the type of questions asked makes it improbable that depressive episodes were missed.

Interpreters were mostly registered nurses whose native language was Northern Sotho and who worked in the particular psychiatric unit providing care for psychiatric patients. When possible, use was made of registrars training to become psychiatrists, who were fluent in Northern Sotho.

A much more important limitation would be recall bias. As with most questionnaires, when history is being taken, patients might not be able to remember everything about their illness in detail and recall bias is therefore a definite limitation of this study. In order to avoid recall bias, information from clinical records in hospital files as well as collateral information from family members was obtained if available. The reasons Negash et al.[23] considered explaining the high rate of non-reporting of depressive episodes deserves consideration in the present study as well, in that recall bias might lead to under reporting milder episodes of depression. Depressive symptoms may also be seen as part of normal life rather than as a psychiatric disorder.

Selection bias could be another very important limiting factor as this was a hospital-based sample which would favour inclusion of patients with manic as opposed to depressive episodes. The aggression and disruptivity associated with mania is more likely to result in referral to mental health care services. Not all patients with manic episodes may necessarily seek help at a hospital either but might go to either private practising doctors or traditional healers.

Another limitation may be the fact that the methodology could be criticised, as this was a purposeful sample with the majority of patients being recruited while hospitalised and all patients being interviewed only once. This precludes generalisation of the findings. In future, a prospective study with a control group may be considered as the cross-sectional nature of the study, without a prospective component, makes it impossible to accurately evaluate and predict the course and outcome of the illness.

Conclusion

The important finding of this current study is the fact that 57% of study subjects had only ever experienced manic episodes. In addition, even after exclusion of those who were not diagnosed with bipolar disorder, the rate was still 56%. If one defines a true unipolar manic course in terms of three or more phases without the occurrence of a depressive episode the rate was 45%, in stark contrast to the rate of 10-20% as reported in the literature[2], but in keeping with findings from Africa[7,18,23] and other non-Western countries[5,20].

It would appear that there are indeed differences between the two groups and in the present study the Depressive and Manic (DAM) group were more likely to have a history of attempted suicide, be HIV positive, be prescribed antidepressants and have a comorbid anxiety disorder whereas the Manic Only (MO) group were more likely to be males, have more psychotic features, in particular paranoid ideation, and have a history of cannabis abuse.

Identifying etiologically homogenous subgroups in psychiatry can also aid the profession in developing a reliable and valid nosology for psychiatric disorders. The earlier view that bipolar disorder is a chronic illness with alternating phases of depression and mania together with euthymic intervals, has gradually been replaced by an understanding of the heterogeneity of this disease and the need to identify phenotypic markers associated with sub-forms. The "manic only" group as described in this article may contribute to the search for an etiologically homogeneous sub-group. As a unique phenotype, a manic only course of illness in bipolar disorder presents an opportunity for genetic research and the search for genetic markers in mental illness.

It would make sense therefore that we need to consider a unipolar manic course as at least a specifier in the DSM as well as ICD, in order to heighten the awareness of such a course of illness in bipolar disorder, with a view to research and in particular genetic research.

If the Kreapelinian dichotomy continues to survive for the time being and we continue to consider the psychotic disorders categorically, one could also postulate that a certain sub-group of patients currently being diagnosed as bipolar disorder in Africa may in fact have a completely different illness. They may in fact suffer from a psychotic-type illness that lies somewhere on the spectrum between what are currently described as bipolar mood disorder and schizoaffective disorder. An appropriate descriptive name for this illness that could be considered would be "Recurrent Manic Psychotic Illness".

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