



Mood, motor, and speech abnormalities in schizophrenia, mania, and other psychotic disorders: a comparative analysis

Abstract

Background: Although schizophrenia is conceptualised as psychosis that affects predominantly thought and, mania that affects mood, careful observation of the psychopathology indicates that there is considerable overlap of mood, motor, and speech abnormalities between various psychotic disorders. **Aims:** This study aimed to examine the nature and types of mood, motor, and speech abnormalities present in schizophrenia, mania, and other psychotic disorders and, compare the nature of these abnormalities. **Method:** In total, 90 patients (divided equally between three study groups) were recruited for study participation via systematic random sampling. Mood, motor, and speech abnormalities were assessed using the Present State Examination, version 10 in the Schedule for Clinical Assessment in Neuropsychiatry. **Results:** Rates of expansive and irritable mood in patients with mania were significantly higher relative to those observed in patients with schizophrenia and other psychotic disorders. However, other symptoms such as reduced sleep and socially embarrassing behaviour did not differ significantly between the three groups. Rates of bizarre and irrelevant behaviour, poor personal hygiene and habits observed in patients with schizophrenia and other psychotic disorders were higher relative to those observed in patients with mania. Rates of blunting and flattening of affect in patients with schizophrenia were significantly higher relative to those observed in mania and other psychotic disorders. **Conclusion:** Although the frequency with which some abnormalities were observed was significantly higher in some psychotic disorders, others such as neglect of common dangers and socially embarrassing behaviour did not differ significantly between the three groups.

Keywords: Psychopathology. Behaviour. Affect.

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INTRODUCTION

Psychiatric disorders can be classified roughly according to the 'triaspsychica': cognition, emotion (mood-affect), and behaviour (conative functions).[1] Schizophrenia is considered a form of psychosis and its most striking features include cognition; mania and melancholia which are affective disorders; and antisocial personality disorder/psychopathy which involves behavioural disturbance.[1]

Schizophrenia, mania, and other psychotic disorders form the major diagnostic entities in psychiatry and have been known by various names throughout history. Little was known about the nature of psychopathology until 1896, when Emile Kraepelin first attempted to classify psychiatric illnesses into two major groups, namely dementia praecox and manic-depressive insanity. In 1911, Eugen Bleuler coined the term 'schizophrenia' and emphasised diagnosis based on symptomatology. The seminal works of Bleuler, Schneider, and Jasper led to numerous studies involving phenomenology.

The famous saying, "In theory there is no difference between theory and practice, in practice there is" (Yogi Berra),

applies to 'triaspsychica'. However, this classification system is not absolute and it involves considerable symptom overlap between the psychiatric diagnostic entities; therefore, it is not used in diagnosis. Clinical experience and various studies have shown that the symptoms of various psychiatric illnesses overlap. For example, irritability is observed in schizophrenia, depression, and mania, while in bipolar disorder, which involves depression and mania, patients' moods and activity levels are disturbed.[2] In addition, although flight of ideas is typical in mania, it is also observed in schizophrenia.[3] Moreover, mania and hypomania are associated with mood elevation and increased energy and activity,[1] and inflated self-esteem, pressure to keep talking, decreased sleep, flight of ideas, and increased libido are included in the diagnostic criteria for manic episodes in bipolar disorder.[2,4] Further, slow movement, marked excitement, posturing, mutism, and negativism are some of the catatonic signs observed in schizophrenia, depression, and manic stupor. Many negative symptoms, such as marked apathy, retarded speech, incongruent emotional responses, and social withdrawal are observed mainly in schizophrenia.[2] However, according to

literature, so-called ‘manic’ and ‘schizophrenic’ symptoms overlap across various psychotic disorders.[5-8]

Given that psychiatric disorders involve higher levels of mental processing, it is the rule, rather than the exception, that psychiatric disorders will affect different high-level processes, producing alterations in language, belief, thought, perception, and emotion in different individuals. In other words, mood, motor, and speech abnormalities could occur in any psychotic illness. Over the years, many researchers have studied various aspects of psychiatric phenomenology but, unfortunately few have been conducted in Northeast India. Lucas *et al.*[9] posited that patients’ symptoms could be meaningfully related to their sociocultural backgrounds rather than their diagnoses. In other words, sociocultural beliefs and values influenced the content of various psychopathological patterns.[10,11] Given that the vast majority of the population in Northeast India lives below the poverty line, the effects of individuals’ superstitious and cultural beliefs on the evaluation of the nature and types of mood, motor, and speech abnormalities in various psychotic illnesses could elucidate the influence of culture on their expression of psychological phenomena. Therefore, the current study aimed to examine various aspects of mood, motor, and speech abnormalities in schizophrenia, mania, and other psychotic disorders in patients attending psychiatric services at Assam Medical College and Hospital (AMCH) in Dibrugarh.

METHOD

The study was approved by the institutional ethics committee at AMCH. A cross-sectional study was conducted in the Department of Psychiatry at AMCH between 1 July 2005 and 30 June 2006. Participants were recruited from inpatients at the psychiatry department, using systematic random sampling, whereby every third case was selected for inclusion in the study, based mainly on the date and time of admission. The following diagnostic groups were included in the study: schizophrenia, mania, and other psychotic disorders.

Other psychotic disorders included persistent delusional disorder, acute and transient psychotic disorder, and unspecified nonorganic psychotic disorders. Individuals who fulfilled tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) diagnostic criteria for these disorders were included in the study.

Sample size

The overall sample size was 90, with 30 participants in each of the diagnostic groups (schizophrenia, mania, and other psychotic disorders). The sampling algorithm is shown in Figure. 1.

Inclusion and exclusion criteria

The inclusion criteria were as follows: age of 18 years or older; fulfillment of the ICD-10 criteria for schizophrenia, manic episodes, bipolar affective disorder, and other psychotic disorders, which included persistent delusional disorder, acute and transient psychotic disorder, and unspecified nonorganic psychotic disorders; and the ability to participate in the study

and complete the procedure. The exclusion criteria were as follows: diagnosis of schizoaffective, rapid cycling affective, induced delusional or schizotypal disorder; comorbid systemic illness (e.g. septicaemia or other acute infection); altered levels of consciousness; mental sub-normality and comorbid substance use disorders.

Measurement tools

The following measurement tools were used in the study:

- Semi-structured proforma for sociodemographic variables
- The ICD-10 Classification of Mental and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines[3]
- Present State Examination-10 (PSE-10) in the Schedule for Clinical Assessment in Neuropsychiatry (SCAN) [12,13]

SCAN is used to assess, measure, and classify major psychiatric illnesses. It was developed within the framework of the World Health Organization and the National Institute of Health joint project on the Diagnosis and Classification of Mental Disorders, Alcohol and Drug-related Problems.

PSE-10 in SCAN was used in the study. In addition, as the study was designed to assess mood, motor, and speech abnormalities, the questionnaire was developed using only the SCAN chapters that pertained to these issues.

Interview procedure

Patients who attended the psychiatric inpatient services at AMCH were assessed and diagnosed according to the ICD-10 diagnostic guidelines, and those who fulfilled the inclusion criteria were recruited for participation in the study. Confirmation of diagnosis was made after patients’ cases were discussed with consultant psychiatrists. Once

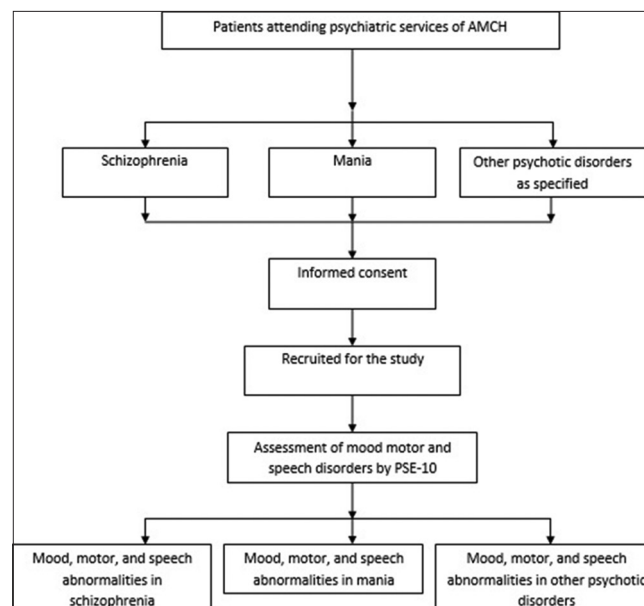


Figure 1: Sampling algorithm. AMCH = Assam Medical College and Hospital; PSE-10 = Present State Examination-10

the patients had provided informed consent, they were assessed for mood, motor, and speech abnormalities via the questionnaire developed using PSE-10 in SCAN. However, no rigid interview pattern was established and the interview sequence was flexible to maximise data collection. Each interview lasted between 60 and 90 minutes. Participants' responses were coded according to the SCAN provisions.

RESULTS AND OBSERVATIONS

The data collected were tabulated and the significance of the observable differences were tested by using Chi-square test.

Participants' demographic characteristics

Most of the participants were men from rural areas who practiced the Hindu religion. The participants' demographic characteristics are summarised in Table 1.

Patients with other psychotic disorders consisted of 20 patients with acute and transient psychotic disorder, eight with persistent delusional disorder, and two with unspecified nonorganic psychotic disorders.

Levels of expansive and irritable mood in patients with mania were significantly higher relative to those observed in patients with schizophrenia and other psychotic disorders ($p < 0.001$). Similarly, rates of pressing and racing thoughts, over talkativeness, self-reported over activity, overly entertaining speech, exaggerated self-esteem, over optimism, and actions based on expansive mood in patients with

mania were significantly higher ($p < 0.001$) relative to those observed in the other two groups. However, rates of other symptoms such as reduced sleep and socially embarrassing behaviour did not differ significantly between the three groups. In addition, the proportions of patients with mania and schizophrenia who reported increased sexual drive were significantly higher relative to that of patients with other psychotic disorders (Table 2).

Rates of bizarre behaviour ($p = 0.002$), irrelevant behaviour ($p = 0.025$), and poor personal hygiene and habits ($p < 0.001$) in patients with schizophrenia and other psychotic disorders were higher relative to those observed in patients with mania (Table 3). The rate of blunting and flattening of affect in patients with schizophrenia was significantly higher relative to that observed in patients with mania and other psychotic disorders ($p < 0.001$).

The proportions of patients with mania who exhibited pressure of speech ($p = 0.003$), flight of ideas ($p < 0.001$), and circumstantiality ($p < 0.001$) were significantly higher relative to those observed in patients with schizophrenia and other psychotic disorders. None of the patients with mania exhibited incoherence, while one exhibited magical/illogical thinking. In addition, one and four patients with other psychotic disorders exhibited incoherence and magical/illogical thinking respectively. Moreover, none of the patients with mania or other psychotic disorders exhibited perseveration. None of the participants exhibited neologism or idiosyncratic use of words or phrases (Table 4).

Table 1: Participants' demographic characteristics

Variable	Schizophrenia	Mania	Other psychotic disorders
Age in years (Mean±SD)	28.63±9.07	32.03±10.48	31.53±12.73
Income in rupees (Mean±SD)	3,596.67±2,322.26	3,573.33±1,726.54	4,096.57±2,185.49
Years of education (Mean±SD)	8.17±4.17	8.37±3.62	8.53±4.54
Sex			
Male	23	22	20
Female	7	8	10
Religion			
Hindu	27	28	25
Muslim	3	2	5
Locality			
Urban	6	9	8
Rural	24	21	22
Marital status			
Married	17	22	18
Unmarried	13	8	9
Divorced/widowed	0	0	3
Occupation			
Employed	7	8	7
Self-employed	9	10	4
Household duties	11	7	8
Unemployed	2	2	7
Student	1	3	4

DISCUSSION

There was a significant overlap of symptoms across all study groups. Flight of ideas occurred mainly in patients with mania but, could not be considered the hallmark of manic disorder as it occurred occasionally in excited schizophrenia and organic states, particularly those resulting from hypothalamic lesions. In addition, Mazumdar *et al.* [14] reported that flight of ideas and pressure of speech were observed in patients with schizophrenia. However, the frequency with which these symptoms were observed in patients with mania was significantly higher relative to that

observed in the other two groups, which is consistent with classical teaching and findings from other studies in which flight of ideas, pressure of speech, and circumstantiality were observed most commonly in patients with mania. [15] In the current study, none of the participants exhibited neologism or idiosyncratic use of words or phrases. In a study examining thought, language, and communication disorders in schizophrenia, Mazumdar *et al.*[14] found that clanging, neologism, and stilted speech were the rarest types of disorder. In the current study, incoherence was observed in patients with schizophrenia and other psychotic disorders but not in those with mania. This is consistent

Table 2: Symptoms (expansive mood and ideation) according to diagnostic group

Symptom	Schizophrenia	Mania	Other psychotic disorders	p-value
Expansive mood	6	21	4	<0.001
Irritable mood	1	9	3	0.015
Pressing and racing thoughts	0	10	0	<0.001
Over talkativeness	4	29	3	<0.001
Distractedness	3	21	5	<0.001
Self-reported over activity	1	25	1	<0.001
Sharpened thinking	0	18	0	<0.001
Overly entertaining speech	2	24	1	<0.001
Exaggerated self-esteem	1	30	2	<0.001
Over optimism	1	29	0	<0.001
Actions based on expansive mood	2	28	1	<0.001
Decreased sleep	25	26	19	0.080
Socially embarrassing behaviour	10	9	8	0.853
Increased sexual drive or activity	7	11	2	0.015

Table 3: Symptoms (motor and behavioral symptoms and affect) according to diagnostic group

Symptom	Schizophrenia	Mania	Other psychotic disorders	p-value
Slowness of movement	1	0	1	1.00
Bizarre behaviour	9	0	7	0.002
Irrelevant behaviour	6	0	2	0.025
Personal hygiene and habits	16	0	14	<0.001
Neglect of common dangers	3	1	5	0.284
Blunting or flattening of affect	18	0	12	<0.001

Table 4: Symptoms (speech abnormalities) according to diagnostic group

Symptom	Schizophrenia	Mania	Other psychotic disorders	p-value
Retarded speech	1	0	2	0.770
Pressure of speech	2	10	1	0.003
Flight of ideas	2	14	1	<0.001
Circumstantiality	3	18	2	<0.001
Abnormal loudness of voice	10	23	5	<0.001
Rambling speech	1	0	2	0.770
Perseveration	1	0	0	1.00
Approximate answering	3	0	1	0.318
Incoherent speech	2	0	1	0.770
Magical/illogical thinking	7	1	4	0.084

with Andreasen and Grove's concept and categorisation of positive and negative speech disorders in which negative and positive speech disorders are typically observed in schizophrenia and mania respectively. According to Andreasen and Grove,[16] composite ratings of positive and negative speech disorders were stable determinants of mania and schizophrenia, while global thought disorder was not.

Rates of sharpened thinking, overly entertaining speech, exaggerated self-esteem, and over optimism in patients with mania were significantly higher relative to those observed in the other two groups ($p < 0.001$). Pressing and racing thoughts were observed in ten patients with mania but, none of the patients with schizophrenia or other psychotic disorders. In addition, 24 patients with mania, two patients with schizophrenia, and one patient with other psychotic disorder exhibited overly entertaining speech. All 30 patients with mania exhibited exaggerated self-esteem while only one patient with schizophrenia had exaggerated self-esteem. Therefore, the prevalence of these thought disorders in patients with mania were significantly higher relative to that observed in the other two groups ($p < 0.001$). This result is in consistent with the findings reported by Freeman,[17] who found that these symptoms were more common in, but not peculiar to, manic depressive psychosis and could be observed in other mental illnesses such as schizophrenia.

Limitations

The study was subject to three limitations. First, it was a cross-sectional study; therefore, the diagnostic stability of cases involving patients with acute and transient psychotic disorder was not assessed. Second, correlations between illness duration and the phenomena included in the study were not assessed. Third, the study included a small sample.

Clinical implications

The main findings of the study were as follows: the rates of mood-related symptoms, such as expansive and irritable mood in patients with mania were significantly higher relative to those observed for patients with schizophrenia and other psychotic disorders; none of the patients with mania exhibited incoherence and the rates of certain behavioural abnormalities, such as neglect of common dangers and socially embarrassing behaviour did not differ significantly between the three groups. Although the frequency with which some of the abnormalities were observed was significantly higher in specific psychotic disorders, none could be considered pathognomonic of a particular psychotic disorder. Therefore, clinicians should not jump to diagnostic conclusions based on the mere presence or absence of a particular abnormality, rather, the overall clinical picture should be taken into account.

Conclusion

In conclusion, there was some overlap of symptoms with respect to mood, motor, and speech abnormalities between various psychotic disorders. Moreover, although the frequency with which some of the abnormalities were observed was significantly higher in specific psychotic disorders, none could be considered pathognomonic of a particular psychotic disorder.

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