ORIGINAL RESEARCH

Unveiling the Spectrum: A Comprehensive Exploration of First-Episode Acute Psychosis and Its Multifaceted Dimensions

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ABSTRACT

Background: This study comprehensively explores the first episode of Acute Psychosis and its socio-demographic associations, examining gender, age of onset, rural-urban disparities, educational, socio-economic status, marital status, and family type. Clinical manifestations, stressful life events, and PANSS scores were studied, with a focus on diagnostic subtypes and correlation analyses.**Methods:**A cross-sectional study involving 56 Acute Psychosis patients utilized ICD 10 criteria, assessing using PSLES, PANSS, and FRS. Comparative analyses based on sex, marital status, onset of illness, suicide attempts, family history, and delusions were conducted.**Result:**The study revealed a slight male preponderance in Acute Psychosis, contrary to earlier findings. Variability in age of onset was noted, with males experiencing an earlier onset. Rural areas showed a higher prevalence. Delusions, especially persecutory, were predominant. Stressful life events significantly varied between diagnostic subtypes, notably lower in Acute Schizophrenia-like Psychotic Disorder (F23.2). PANSS scores indicated a higher prevalence of positive symptoms, with F23.3 exhibiting fewer positive symptoms. Marital status differences were significant among diagnostic subtypes.**Conclusion:**This study enhances our understanding of Acute Psychosis, providing nuanced insights into demographic patterns and symptomatology, informing future research and clinical approaches.

Key words: Acute Psychosis, Socio-demographic Variables, Diagnostic Subtypes, First-Rank Symptoms, Stressful Life Events, PANSS Scores.

INTRODUCTION

The recognition of Acute Psychosis as a distinctive descriptive entity stands as a watershed moment in psychiatry, formally acknowledged by the World Health Organization (WHO) in 1992 through the introduction of the International Classification of Diseases, 10th edition (ICD-10).[1] Initially termed Acute and Transient Psychotic disorders, it was designated the code (F 23) within the ICD-10 framework. According to the ICD-10 criteria, Acute Psychosis is characterized by an acute onset within two weeks, accompanied by full remission within one to three months.[2] The diagnostic criteria further include the presence of typical syndromes and the concurrent existence of associated acute stress.[2]

The journey toward the current conceptualization of Acute Psychosis has been a protracted one, shaped by significant developments in our understanding of the neurobiology of psychiatric illnesses. The advent of pharmacological interventions for psychiatric conditions not only revolutionized treatment modalities but also paved the way for a more profound comprehension of mental disorders from therapeutic, concurrent, dimensional, and biological perspectives.[3] This transformative period in psychiatric research played a crucial role in reshaping the diagnosis and classification of mental illnesses, particularly with the discovery of antipsychotic and antidepressant medications.[4]

The predominant focus on major psychiatric illnesses, such as schizophrenia and affective disorders, paved the way for the recognition of new, poorly understood, and diverse forms of psychosis globally.[5] Clinicians across the world observed short-duration illnesses with varied symptomatology, characterized by an acute onset and subsequent full remission, distinct from the traditional understanding of schizophrenic illnesses.[6] However, defining a homogenous group of mental illnesses proved to be challenging.[6]

Researchers, especially from countries like Germany, Scandinavia, and Asia, challenged the prevailing

Kraepelinian dichotomous model and advocated for a paradigm shift in the conceptualization of mental illnesses.[7] Numerous national and international studies in subsequent years supported these contentions, prompting WHO to introduce the novel concept of Acute and Transient Psychotic disorders in 1992.[8]

Despite its inclusion in the diagnostic manual of ICD-10, the understanding and knowledge about Acute Psychosis remain limited. WHO emphasizes the uncertain nosological status of Acute and Transient Psychotic disorders, citing a dearth of comprehensive data and confirmed clinical information to guide clear understanding and classification within the realm of psychiatric illnesses.[9] The neurobiology, etiology, and genetic implications of Acute Psychosis are areas yet to be thoroughly explored, hinting at potential changes in diagnostic systems with further investigation.[10]

Acute Psychosis, as a distinctive entity, offers researchers and psychiatrists new avenues for studying psychosis that diverges from the traditional categories of schizophrenia or affective disorders.[11] It serves as a crucial lens for comprehending the nature and classification of psychiatric disorders, underlining the ongoing evolution and refinement of our understanding in the dynamic field of psychiatric research.

This present study seeks to unravel the intricacies of first-episode acute psychosis, examining its phenomenology and its intricate relationship with sociodemographic variables and stressors. The specific objectives include studying the phenomenology of the first episode, assessing its relation to demographic variables and psychological stress, exploring phenomenology in relation to different subtypes, identifying the use of phenomenology in criteria-based diagnosis, and studying the symptom profile and clinical pattern associated with acute psychosis.

MATERIALS AND METHODS

Study Setting: The study was conducted within a psychiatric ward, Government Rajaji Hospital, Madurai utilizing a cross-sectional design over a duration of 8 months from May 2021 to December 2021.

Study Participants: They were selected based on specific inclusion and exclusion criteria. Inclusion criteria encompassed individuals meeting the following conditions: first, a diagnosis of acute psychosis according to the ICD-10 diagnostic criteria, specifically under the code F 23; second, an age range between 18 to 65 years; third, the experience of the first episode of psychosis and drug-naïveté; fourth, a duration of illness less than 28 days; and fifth, the ability to provide informed consent. This careful selection ensured a cohort with a consistent and defined set of characteristics for a comprehensive examination of first-episode acute psychosis.

Conversely, exclusion criteria were established to refine the participant pool further. Individuals were excluded if they met any of the following conditions: a history of previous psychiatric illness; features suggestive of mental retardation, dementia, or delirium; the presence of severe co-morbid medical illness; or an acute state of intoxication or drug withdrawal. These criteria aimed to exclude factors that might confound the study's objectives and ensure a more homogenous group for a focused investigation into the phenomenology and correlates of first-episode acute psychosis.

Sample Size and Sampling Technique: The sample size comprised 56 consecutive patients admitted to the psychiatry ward who fulfilled the criteria of acute psychosis according to ICD-10. Participants were selected through consecutive sampling, and informed consent was obtained before their inclusion in the study.

Study Tools: Several tools were employed for the comprehensive evaluation of patients:

1. Semi-Structured Performa: Inclusive of sociodemographic details, patient complaints, history of presenting illness, past history, family history, clinical examination, and mental status examination findings.
2. International Classification of Mental and Behavioral Disorders, 10th Revision (ICD-10): Specifically, the diagnostic category of “F 23 Acute and Transient Psychotic Disorders” was utilized for patient inclusion.
3. Modified Kuppuswamy Rating Scale for Socioeconomic Status: Employed to assess socioeconomic status based on education, occupation, and income.
4. Presumptive Stressful Life Events Scale (PSLES): Designed for the Indian population, the PSLES assessed stressful life events over the past year prior to the onset of illness.
5. Positive and Negative Symptoms Scale (PANSS): Used to evaluate both positive and negative symptoms of psychotic patients.
6. Brief Psychiatric Rating Scale (BPRS): A widely used tool for assessing psychotic symptoms and their severity.
7. PSE Interview Item Defining Nine FRS (Carpenter & Strauss): A modified version of the Present State Examination interview was employed to assess first-rank symptoms.

Ethical issues: Ethical approval was obtained from the institutional ethical committee (IEC). Patients were initially screened by postgraduates and evaluated by a senior psychiatrist. The first 62 consecutive patients admitted to the psychiatry ward meeting the criteria were chosen. Informed consent was obtained, and clinical interviews were conducted using the specified tools.

Statistical Analysis: The data collected underwent statistical analysis using SPSS version 25 for Windows, incorporating descriptive

statistics, chi-square tests, Karl Pearson's correlation coefficient, student t-tests, and Post Hoc tests, with a significance level set at $p < 0.05$.

RESULT

Table 1 displays the socio-demographic characteristics of the study participants. A total of 56 individuals participated in the study, with 55.4% males and 44.6% females. The majority of participants were in the age group of 21-30 years (30.4%), residing in rural areas (55.4%), and had a primary level of education (41.1%). Unskilled occupation was predominant (37.5%), and most participants belonged to the lower & upper lower socio-economic status (66.1%). Married individuals constituted 57.1%, and nuclear family types were more prevalent (66.1%).

Table 1: Socio-demographic profile among the study participants

S.No	Variables		Number	Percentage
1	Sex	Male	31	55.4
		Female	25	44.6
2	Age	< 20	13	23.2
		21 – 30	17	30.4
		31 – 40	12	21.4
		41 – 50	5	8.9
		51 – 65	9	16.1
3	Locality	Rural	31	55.4
		Urban	25	44.6
4	Education	Illiterate	12	21.4
		Primary	23	41.1
		Middle & High	11	19.6
		Graduate & profession	10	17.9
5	Occupation	Unemployed	18	32.2
		Unskilled	21	37.5
		Semiskilled	13	23.2
		Skilled	4	7.1
6	Socio economic status	Middle & Lower middle	9	16.1
		Lower & upper lower	37	66.1
		Lower	10	17.8
7	Marital status	Married	32	57.1
		Unmarried	24	42.9
8	Family type	Nuclear	37	66.1
		Joint	19	33.9

The majority of subjects had a duration of untreated illness between 1-2 weeks (35.7%) and an acute onset of illness (78.6%). Substance use was observed in 37.5% of participants, and suicide attempts occurred in 32.1% during the illness. Family history of psychiatric illness was reported in 28.6% of cases. Delusions were present in 87.5% of participants, with persecutory delusions being the most common (69.6%). Auditory hallucinations were reported by 53.6% of subjects.

Among the 56 participants, 37.5% had a diagnosis of F23.1 (Acute polymorphic psychosis with symptoms of schizophrenia), while 33.9% had F23.2 (Acute schizophrenia-like psychotic disorder). The diagnosis of F23.0 (Acute polymorphic psychosis without schizophrenic symptoms) was observed in 19.6% of cases, and F23.3 (Other acute predominantly delusional-like psychotic disorder) in 7.1%.

Persecutory delusions were the most prevalent (69.6%), followed by infidelity (25.0%). The mean scores and standard deviations for each delusion content are also presented. The majority of participants (67.9%) experienced 3-5 PSLES life events, with a mean PSLES number of events of 4.76. Additionally, significant differences were noted in PSLES number of events and total scores between diagnostic subtypes, with F23.2 showing higher scores ($p < 0.05$).

Significant differences were found in the PANSS number of positive symptoms between diagnostic subtypes, with F23.3 differing significantly from F23.1 and F23.2 ($p < 0.01$). Significant differences were observed in PSLES number of events and total score between F23.2 and F23.0 or F23.1 ($p < 0.05$). PANSS number of positive symptoms also showed significant differences between F23.3 and F23.1 or F23.2 ($p < 0.01$). Also, significant differences were found in the total FRS score between F23.2 and other diagnostic subtypes ($p < 0.05$).

Table 2: Correlation matrix of variables in study

S. No	Age raw score	SES	PSLES no of events	PSLES total score	PANSS number of positive symptoms	PANSS total pos score	PANSS number of negative symptoms	PANSS total negative score	Total FRS score
Age raw score	1								
SES	.316 (*)	1							
PSLES no of events	.349 (**)	.366 (**)	1						
PSLES total score	.369 (**)	.315 (*)	.969(**)	1					
PANSS no of possym	-0.017	-0.244	-0.181	-0.130	1				
PANSS total pos score	-0.131	-.282 (*)	-.338(*)	-.310(*)	.863(**)	1			
PANSS no of neg sym	-0.195	0.043	-0.101	-0.058	-.363(**)	-.348(**)	1		
PANSS total neg score	-0.226	0.055	-0.149	-0.155	-.281(*)	-0.237	.861(**)		
Total FRS score	-0.231	0.026	-.463(**)	-.434(**)	.265(*)	.304(*)	0.198	0.235	1

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

DISCUSSION

The present study aimed to comprehensively explore the phenomenology of the first episode of Acute Psychosis and its association with socio-demographic variables. The demographic profile of the study participants revealed interesting patterns. Males exhibited a slight preponderance for Acute Psychosis in the current study, contrary to some earlier research indicating a higher female preponderance. Age of onset analysis showed variability, with a mean age of 32 years, and males experiencing an earlier onset than females, aligning with certain previous studies.

In contrast to some earlier research indicating a higher female preponderance for Acute Psychosis, our study identified a slight preponderance of males.[12] This finding aligns with certain previous studies that have reported variability in gender distribution. Additionally, the mean age of onset, identified as 32 years in our study, resonates with the literature, showcasing earlier onset in males, as supported by earlier research.

The exploration of rural-urban disparities in Acute Psychosis prevalence echoes previous literature, emphasizing the significance of geographical factors. Consistent with earlier studies,[13, 14] our analysis of educational status, socio-economic status, marital status, and family type provides a nuanced understanding of the socio-demographic landscape associated with Acute Psychosis.

The examination of clinical characteristics in our study revealed substantial variations in symptom manifestation. The prevalence of delusions, particularly with persecutory content, aligns with previous findings. However, the study also observed variations in the content of delusions, providing a detailed breakdown, adding granularity to existing knowledge.

The investigation into stressful life events aligns with previous findings associating life stressors with the onset of Acute Psychosis. Notably, the study identified significant differences in the number of life events between diagnostic subtypes, particularly highlighting lower stress levels in patients with Acute Schizophrenia-like Psychotic Disorder (F23.2). This nuanced insight contributes to the ongoing discourse surrounding the impact of stressors on specific diagnostic subtypes.

Our analysis of PANSS scores indicated a higher prevalence of positive symptoms, corroborating with general trends observed in previous studies. Interestingly, the study reported a significant difference in the number of positive symptoms between diagnostic subtypes, with Other Acute Predominantly Delusional Disorder (F23.3) exhibiting fewer positive symptoms. This finding adds depth to our understanding of the symptomatology associated with different diagnostic categories.

Emphasizing the importance of FRS, our study identified patients diagnosed with Acute Schizophrenia-like Psychotic Disorder (F23.2) and Acute Polymorphic Psychosis with Symptoms of Schizophrenia (F23.1) displaying a higher number of FRS symptoms. This finding resonates with previous studies, suggesting that monitoring FRS may aid in assessing long-term diagnostic stability.[15]

Correlation analyses unveiled valuable insights, with positive correlations noted between age and socio-economic status with the number of stressful life

events. Negative correlations were observed between stressful life events and positive symptoms, as well as with the total FRS score. Positive correlations were noted between PANSS number of positive symptoms and the PANSS total FRS score. These findings contribute to the existing body of knowledge on the complex interplay between socio-demographic factors, stress, and symptomatology in Acute Psychosis.

Comparative analyses based on sex, marital status, onset of illness, suicide attempts, family history, and presence of delusions provided nuanced insights. Notably, significant differences in marital status among diagnostic subtypes, with Acute Schizophrenia-like Psychotic Disorder (F23.2) being more common among unmarried individuals, introduce a novel dimension to the understanding of socio-demographic variables. These findings prompt further exploration into the intricate relationship between marital status and specific diagnostic categories.

This study's findings contribute to the existing body of knowledge on Acute Psychosis by providing nuanced insights into demographic patterns, clinical characteristics, and correlations with socio-demographic variables. The comparisons with previous studies enrich our understanding of the complex nature of Acute Psychosis and pave the way for future research endeavors.

Limitations: It is crucial to acknowledge the limitations of this study, such as the sample size and potential biases inherent in cross-sectional designs. The implications of these findings extend to the realms of clinical practice, suggesting the need for tailored interventions based on socio-demographic and clinical characteristics.

CONCLUSION

This study provides a comprehensive exploration of the phenomenology of Acute Psychosis, shedding light on various facets ranging from socio-demographic variables to clinical characteristics. The detailed understanding gained from this research contributes to the broader knowledge base, emphasizing the need for personalized approaches in the assessment and management of Acute Psychosis. Further longitudinal studies with larger cohorts could provide additional insights into the trajectory and prognostic factors associated with different subtypes of Acute Psychosis.

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