



## A COMPARATIVE STUDY OF PHENOMENOLOGY BETWEEN EARLY ONSET AND LATE ONSET PSYCHOSIS

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### ABSTRACT

**Introduction:** Phenomenology is the study of subjective experience. Psychiatric diagnoses are based on cross-sectional psychopathological features, for example, the presence of first-rank symptoms in the case of schizophrenia. Phenomenological investigation focuses on the form of experience, i.e. the way in which the content is experienced, while the content itself is of secondary importance. This study was conducted to investigate the subtle differences between early-onset group (onset before 18 years of age) and late onset (onset after age of 40 years).

**Aim And Objectives:** To study the socio-demographic profile and phenomenology of early onset psychosis and late onset psychosis compare them based on the variables studied. **Materials And Methods:** It is a cross sectional observational study carried out in the Department of Psychiatry, Gauhati Medical College and Hospital during the period of June 2018- May 2019. A semi structured, self designed proforma has been used to collect the socio-demographic data and personal details of the patients and their treatment history. The ICD-10 Classification of Mental and Behavioural Disorders, WHO, 1992, Brief Psychiatric Rating Scale (BPRS) Version 4.0, Modified Kuppuswamy Socio-economic status scale were used along with. All the data that was derived from the study were analyzed by using the software IBM SPSS 21.0. **Observations And**

**Results:** Mean age of presentation in early onset psychosis is 19.22 years with Standard Deviation  $\pm 5.69$ . Mean age of presentation in early onset psychosis is 54.5 years with Standard Deviation  $\pm 11.9$ . Significantly higher ratio of male was noted in early onset group and higher ratio of female was noted in that of the late onset group. Somatic concern, anxiety, depression and suspiciousness was significantly more in late onset psychosis. In comparison to the group of late onset psychosis, self-neglect, blunted affect, emotional withdrawn, motor retardation, motor hyperactivity, mannerisms and posturing were significantly more in early-onset psychosis. **Conclusion:** Major distinction was noted in the distribution of delusional disorders and acute and transient psychotic disorders. Age of onset was skewed to late adolescence with more number of male patients. Late onset psychosis group had more uneducated patients with considerable proportion of adults left unmarried in the late onset group. Late onset psychosis group shows predominance of somatic concern, anxiety, depression and suspiciousness in contrast to early onset psychosis group which shows predominance of motor hyperactivity, self-neglect, blunted affect, motor retardation, mannerisms and posturing.

**KEYWORDS :** psychosis, adolescent, mental, disorder, schizophrenia, paranoid, psychiatry

### INTRODUCTION

The term "phenomenology" is derived from the Greek word 'phainómenon' meaning "that which appears" and 'lógos' for "study". The term 'Phenomenology' was first introduced by Johann Heinrich Lambert (1728 - 1777) in the 18th Century, and was subsequently used by Immanuel Kant and Johann Gottlieb Fichte, and by G. W. F. Hegel in his "Phenomenology of Spirit" of 1807.<sup>1</sup> Jaspers initially equated phenomenology with a static understanding according to which the investigator focuses on the cross-section of contents of consciousness. This understanding aims to capture current subjective experience as descriptively as possible, to distinguish experiences clearly, and to express these experiences in unambiguous terms.<sup>2</sup>

Psychiatric diagnoses are not based on the course of illness but on cross-sectional psychopathological features, for example, the presence of first-rank symptoms in the case of schizophrenia. It has been estimated that the prevalence of childhood schizophrenia may be 1.6 to 1.9 per 100,000 child population. However, its prevalence increases from 14 years of age onwards with a peak incidence in the late teens and early 20s. In an Australian study of first episode psychosis, a third of newly diagnosed were found to be between 15 and 19 years of age. While male gender predominance has been described in pre-adolescent children (Russell et al., 1989), an equal gender ratio is more commonly reported in adolescence.<sup>3</sup>

Early onset schizophrenia is defined as schizophrenia with onset of positive symptoms prior to 18 years of age. Schizophrenia with onset between 13 to 18 years is frequently referred to as adolescent onset. Onset of schizophrenia prior to age of 13 years is referred to as very early onset or childhood onset. Typically, in child and adolescent-onset psychosis there is a prodromal period characterized by some deterioration in personal functioning, which may follow an acute period of stress, a distressing experience or physical illness. This period may stretch up to 1 year and affect school performance in a negative manner. The length of functional decline and emergence of attenuated positive symptoms preceding the first psychotic episode can last from a few months to several years, and is referred to as the psychosis prodrome. Many opine the prodromal phase as the greatest potential for preventive intervention, and therefore, it has become the focus of much intense research.<sup>4,5</sup>

Following resolution of the acute episode, commonly after pharmacological and psychological interventions, the positive symptoms diminish and disappear for many children and young people, although a number of negative symptoms may remain. This phase, which can last for years, may be interrupted by recurrent acute episodes that may need additional intervention. Persisting symptoms appear to be especially common when the condition starts in preadolescent children. Schizophrenia in children and young people characteristically runs a chronic course, with only a minority making a full symptomatic recovery from the first psychotic episode, with only 12% in full remission at discharge compared with 50% of children and young people with affective psychoses. The short-term outcome for schizophrenia presenting in early life appears to be worse than that for adults with a first episode of psychosis. If full recovery does occur then it is most likely to happen within the first 3 months of onset of psychosis. Young people with schizophrenia who have psychotic symptoms after 6 months have only a 15% chance of their symptoms achieving full remission, while over half of all those who make a full recovery have active symptoms for less than 3 months. The predictors of poor outcome in adolescent onset psychosis include premorbid social and cognitive impairments, a prolonged first psychotic episode, duration of untreated psychosis (DUP) and the presence of negative symptoms.<sup>6,7</sup>

DSM-III-R included a late onset category for patients with initial presentations at the age of 45 or later. The revised third edition also replaced the term paranoid disorder with delusional disorder, modified the diagnostic criteria to include a minimum duration of 1 month and expanded the scope of delusions of grandiose, erotomania, somatic, jealousy and unspecified types. To further investigate the subtle differences, an international late-onset schizophrenia group met to review literature and reached consensus that support two late onset illness classifications: late onset (onset after age of 40 years) and very late onset (onset after age of 60 years). Literature on distinctions between subtypes still remains limited.<sup>8</sup>

The Brief Psychiatric Rating Scale (BPRS) is one of the most widely utilised instruments enabling the clinician to quickly gather information about the possible presence and severity of various psychiatric symptoms. The 24-item BPRS also has supplementary

rules for rating and the anchor points are better defined. Additional guidelines for interviews and operational definitions regarding the frequency of symptoms and social functioning alterations are available. The researcher notes a number for each symptom that ranges from 1 (not present) to 7 (extremely severe)<sup>9,10</sup>. India harbours a huge diversity in socioeconomic conditions as well as ethnicities. As very few studies have been carried out from this part of the country, it was deemed as a necessary study and a contribution to the limited literature.

**AIMS AND OBJECTIVES**

1. To study the socio-demographic profile and phenomenology of early onset psychosis and late onset psychosis
2. To compare the socio-demographic profile and the phenomenology of patients between early onset and late onset psychosis.

**MATERIALS AND METHODS**

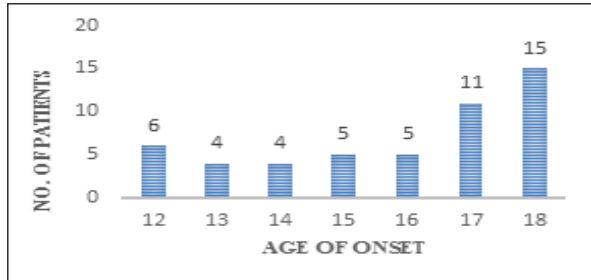
It is a cross sectional observational study carried out in the Department of Psychiatry, Gauhati Medical College and Hospital, Guwahati, Assam during the period of June 2018- May 2019. Ethical clearance was obtained from the Institutional Ethics Committee before conducting the study. The study sample of 100 cases of two groups of early onset and late onset psychosis. The early onset psychosis with onset before 18 years of age and late onset psychosis group consisted of psychosis with onset after the age of 40. The tools used were ICD-10 Classification of Mental and Behavioural Disorders, WHO, 1992, Brief Psychiatric Rating Scale (BPRS) Version 4.0, Modified Kuppuswamy Socio-economic status scale. A semi structured, self designed proforma has been used to collect the socio-demographic data and personal details of the patients and their treatment history.

**Inclusion Criteria:**

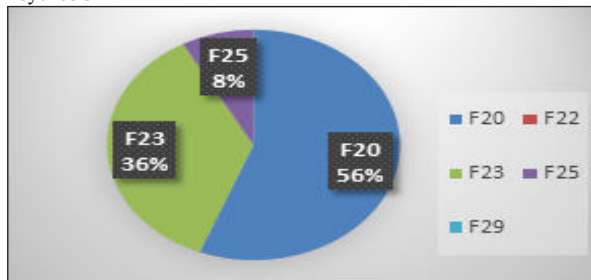
Age of onset-13-18 years in early-onset psychosis and more than 40 years in late-onset psychosis with diagnosis-F20-F29 (ICD 10).

Patients with mental retardation, other psychiatric co morbidities, organic psychosis and personality disorders were excluded from the study. All the data that was derived from the study were analyzed by using the software IBM SPSS 21.0. P value <0.05 was considered statistically significant.

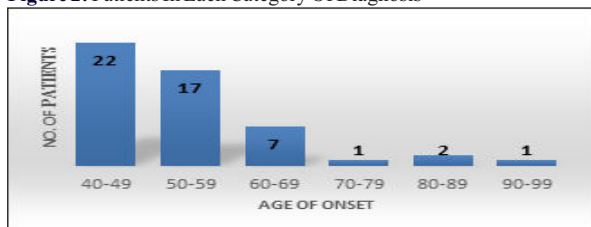
**OBSERVATIONS AND RESULTS**



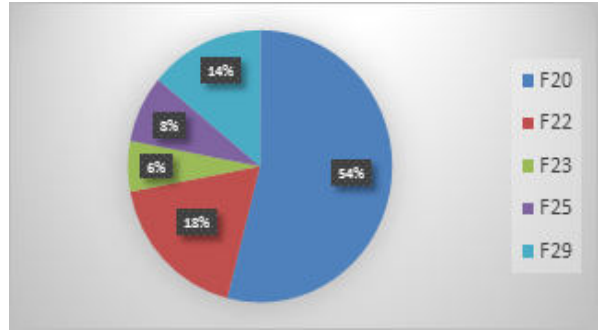
**Figure 1:** Number Of Patients In Each Age Group In Early Onset Psychosis



**Figure 2:** Patients In Each Category Of Diagnosis



**Figure 3:** Number Of Patients In Each Age Group In Late Onset Psychosis



**Figure 4:** Patients In Each Category Of Diagnosis

**Table 1: Distribution Of Sex**

Sex	Male	Female
Early onset	56.00%	44.00%
Late onset	40.00%	60.00%
Grand total	48.00%	52.00%

The p-value is .02354. This result is significant at p < .05.

**Table 2: Distribution Of Family History**

FAMILY HISTORY	PRESENT	ABSENT
EARLY ONSET	36.00%	64.00%
LATE ONSET	28.00%	72.00%
Grand Total	32.00%	68.00%

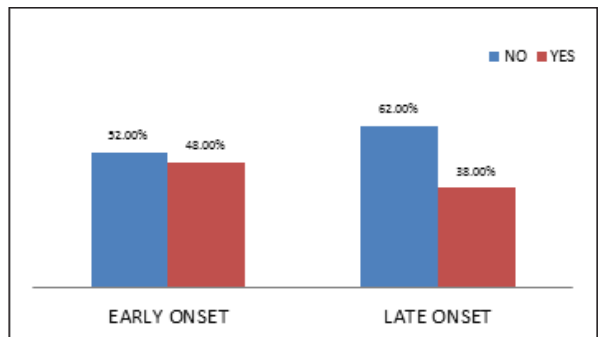
The chi-square statistic is 1.4706. The p-value is .225253. This result is not significant at p < .05.

**Table 3: Distribution Of Birth Order (%)**

	1st child	1st of twins (last)	Any other	Last child	Only child
EARLY ONSET	32	2	36	24	6
LATE ONSET	28	0	56	8	8

**Table 4: Distribution Of Medical Illness**

	ASTHM A	DIABET ES	HTN	HTN+ ASTHM A	PIV D	NO
EARLY ONSET	1	1				48
LATE ONSET	2	3	7	1	1	36



**Figure 5:** Distribution Of Previous Treatment

**Table 5: T Test Results Of Items Of BPRS And Their Means In Early And Late Onset Psychosis**

Item of BPRS	Mean of early onset	SD	Mean of late onset	SD	T	P value	Significance at p<0.05
Somatic concern	1.43	1.24	2.82	1.24	-3.9063	0.000087	Significant
Anxiety	1.29	1.01	1.88	1.01	-2.6364	0.004879	Significant
Depression	1.20	0.82	2.00	0.82	3.58657	0.000263	Significant
Suicidality	1.37	1.25	1.35	1.25	-0.05462	0.478278	Not significant
Guilt	1.16	0.65	1.10	0.65	-0.65471	.257102	Not significant

Hostility	1.52	1.20	1.57	1.20	0.19529	0.422788	Not significant
Elated mood	1.44	1.11	1.24	1.11	-1.0345	0.151737	Not significant
Grandiosity	1.52	1.27	1.27	1.27	-1.1896	0.118548	Not significant
Suspiciousness	2.39	2.23	3.61	2.23	2.77972	0.003267	Significant
Hallucinations	3.14	2.64	3.58	2.64	0.82806	0.204834	Not significant
Unusual thought content	2.04	1.51	2.51	1.51	1.3673	0.087346	Not significant
Bizarre behaviour	2.54	1.92	1.47	1.92	-3.35378	.000569	Not significant
Self neglect	3.56	2.03	2.22	2.03	-3.5652	0.000283	Significant
Disorientation	1.08	0.44	1.04	0.44	-0.56371	0.287125	Not significant
Conceptual disorganisation	1.08	0.44	1.14	0.44	0.63287	0.264154	Not significant
Blunted affect	3.16	2.25	1.67	2.25	-3.9528	0.000073	Significant
Emotional withdrawal	3.02	2.39	1.71	2.39	-3.3671	0.000545	Significant
Motor retardation	2.46	2.06	1.55	2.06	-2.7279	0.003784	Significant
Tension	1.08	0.44	1.04	0.44	-0.52061	0.301912	Not significant
Uncooperativeness	2.10	1.60	1.39	1.60	-2.5377	0.006376	Significant
Excitement	1.30	0.79	1.22	0.79	-0.5179	0.302855	Not significant
Distractibility	1.29	0.71	1.24	0.71	-0.10605	0.457881	Not significant
Motor hyperactivity	1.48	1.27	1.08	1.27	-2.1028	0.019036	Significant
Mannerisms and posturing	1.70	1.79	1.00	1.79	-2.74153	0.003641	Significant

## DISCUSSION

In this study, it was found that majority of the patients (34%) of early onset group had onset at 18 years of age, followed by the age of onset at 17 years (22%) and then at 15 years of age (14%). Equal distribution of patients (10%) was observed at the age of 13, 14 and 16 years, respectively. In late onset psychosis, 44% had onset from 41-50 years of age. 34% had age of onset in the decade of 51-60 years followed by 14% between 61-70 years of age. 4% of the patients had onset in decade of 81-90 years, 2% in 71-80 years of age and 2% had onset at the extreme age of 91-100 years. Mean age of presentation in early onset psychosis is 19.22 years with Standard Deviation  $\pm 5.69$ . Mean age of presentation in early onset psychosis is 54.5 years with Standard Deviation  $\pm 11.9$ . In a longitudinal study by MacDougall AG *et al.* 2011, it was observed that the majority of the patients were females. The group as a whole had a mean age at presentation of 66.6 years (SD 11.74) and a mean age of onset of 64.3 years (SD 12.0). This is in contrast to the present study as maximum of the patients (44%) had onset in the decade of 41-50 years.<sup>11</sup> In a North-East Indian study by Mhetre BB *et al.* in 2019 found that out of 44 patients, non-affective psychosis was diagnosed in 25 patients. Mean age at onset was 23 years with standard deviation of 6.5 years.<sup>12</sup>

Significantly higher ratio of male was noted in early onset group and higher ratio of female was noted in that of the late onset group. This finding is in accordance with the study of 539 schizophrenics in India by Mitali. B. *et al.* 2009, studied the clinical characteristics of LOS, the age of onset of illness was 47.97 years for males and 51.54 years for females, indicating women have onset later than men which coincide with the results of the present study.<sup>13</sup>

In this study, half of the patients with early onset psychosis had completed high school compared to 18% of patients with late onset psychosis. Only 12% were uneducated in early onset group, whereas 52% of patients were uneducated in the late onset group. Presence of family history was not statistically significant after comparison of the both the groups. In line with the present study, Miettunen *et al.* 2018

summarized that early onset schizophrenia has been linked with higher familial risk and poor premorbid social adjustment.<sup>14</sup>

Medical illness was more in the late onset group than that of early onset psychosis group. Hypertension was found in 14% of the late onset patients followed by type 2 diabetes mellitus in 8% of them. Only 1 of them had PIVD and 1 had both hypertension with bronchial asthma. In the early onset group, 1 out of 50 patients had bronchial asthma. 1 of them had diabetes following antipsychotic medications. Similar study was carried out by Carney *et al.* 2006, which was a population based controlled study for co morbidities in schizopohrenia patients with a mean age of onset 40.2 years. They found that peripheral vascular disease, stroke, chronic obstructive pulmonary disease and asthma. A higher percentage of patients with schizophrenia had ischemic heart disease and hypertension.<sup>15</sup>

In the present study, most of the adolescents (56%) satisfied diagnosis of F20. 36% of them had a diagnosis of F23 with hardly 8% of them in F25. More than half of the adults (54%) were diagnosed as Schizophrenia (F20). 18% had Persistent delusional disorders (F22) and 8% suffered from Schizoaffective disorders (F25). 14% were diagnosed as Unspecified Nonorganic psychosis (F29). Least of them (6%) were diagnosed as Acute and Transient Psychotic disorders (F23).

The late onset group shows similar findings as the study by Pencer *et al.* in 2005, who conducted a study on 69 adolescents and 69 adults. For the adults, at 1 year, diagnoses were: 69.7% schizophrenia, 9.1% schizophreniform, 6.1% psychotic disorder NOS, 3.0% schizoaffective disorder, and 12.1% other psychotic disorder. For the adolescents, diagnoses at 1 year were: 69.3% schizophrenia, 15.5% schizophreniform, 7.7% psychotic disorder NOS, 1.5% schizoaffective disorder and 6% other psychotic disorder. Schizophrenia was the diagnosis for most of the adolescents and adults which is similar with the present study.<sup>16</sup> The Northern Ireland Early Onset Psychosis Study by Fulton *et al.* 2008, ten out of twenty-five children met criteria for schizophrenia, eleven for affective psychosis, two for schizoaffective disorder and two for schizophreniform disorder which is similar to this study, delusional disorder was not found in children by that study as well.<sup>17</sup>

## Brief Psychiatric Rating Scale (BPRS)

Somatic concern, anxiety, depression and suspiciousness was significantly more in late onset psychosis. In comparison to the group of late onset psychosis, self-neglect, blunted affect, emotional withdrawn, motor retardation, motor hyperactivity, mannerisms and posturing were significantly more in early-onset psychosis. The majority of late onset psychosis patients had positive symptoms (suspiciousness, hallucinatory behaviour or unusual thought content) and only a minority had negative symptoms (emotional withdrawal, motor retardation, blunted affect) or mannerisms and posturing in a study by MacDougall *et al.* in 2011.<sup>11</sup>

## CONCLUSION

The study provides an understanding that late onset psychosis is different from early onset in few socio-demographic variables and presentation of psychotic symptoms. The distribution of diagnosis was almost equal for schizophrenia in both the groups. Major distinction was noted in the distribution of delusional disorders and acute and transient psychotic disorders. Age of onset was skewed to late adolescence with more number of male patients. Late onset psychosis group had more uneducated patients with considerable proportion of adults left unmarried in the late onset group. Late onset psychosis group shows predominance of somatic concern, anxiety, depression and suspiciousness in contrast to early onset psychosis group which shows predominance of motor hyperactivity, self neglect, blunted affect, motor retardation, mannerisms and posturing. A close understanding of the phenomenology helps in understanding the evolution of the illness from the prodromal to the overt presentation of illness. Presentation of patients with early onset psychosis may be quite different from late onset psychosis but the current diagnostic system doesn't specify the same. In future, we need to understand an illness in different dimensions of it rather than simply allocating categories. In the present diagnostic system, there may be delay in diagnosis and treatment which may in the long run determine the outcome of treatment. This study should also help to generate an area of interest in pharmacotherapy. Lastly, as the illness affects the productive years of a person's life, it is important to make the person optimally functional in all aspects and a valuable part of the society by

a comprehensive understanding of the illness.

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