

DEMOGRAPHIC FEATURES AND COMMON PRESENTATIONS OF SCHIZOPHRENIA

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Abstract

Fifty cases of schizophrenia were assessed in Combined Military Hospital (CMH), Dhaka and National Institute of Mental Health (NIMH), Sher-e-Bangla Nagar, to ascertain the pattern of demographic features and symptom presentation in current national perspective. The study includes period from July 2004 to September 2005. Most of the patients belonged to the age ranging from 14 to 45 years throughout whole Bangladesh. It was found that 54% of the patients were male and 46% were female. The lowest age of onset was 14 year for both sexes and the highest age of onset was 45 year in female and 41 years in male. Among the schizophrenic patients 50% were unmarried and 50% were married and most of them belonged to lower economic class.

In this study both the urban and rural percentage were equal (50%). Most of the patients were unemployed or recently disengaged from work place with a lower educational back ground. The most frequent patterns of symptom irrespective of demographic variables were persecutory ideas or delusion (76%). Analysis revealed that delusion of reference, grandiose delusions, delusion of control or possession of thought were significantly high among the male patients compared to female patients ($p < 0.05$), but no statistically significant difference was observed with other symptoms ($p > 0.05$). Analysis found that no statistically significant difference was observed between urban and rural patients ($p > 0.05$) except visual and other hallucinations e.g. gustatory, olfactory which was significantly high among the urban patients ($p < 0.05$). The next frequent symptom was perceptual disturbances in the form of auditory hallucination (70%). Delusion of reference was about 70% along with delusion about control or possession of thoughts being approximately 42%.

Key Words: Demographic features, Common presentations, Schizophrenia.

Introduction

Schizophrenia is the most severe and costliest medical condition of variable but profoundly disruptive psychopathology which involves thought, perception, behavior, emotion and movement¹. The expression of those manifestations varies across patients and over time,

but the effect of the illness is always severe and is usually long lasting. It is a chronic, debilitating psychotic major mental disorder that affects one percent of population². A new generation of medications and recent developments in neuropathology, brain imaging and molecular genetics, viral and immunological models of causation have led to a greater understanding of the pathophysiological and treatment aspects of schizophrenia³. Schizophrenia is a disturbance that last for at least 6 months and includes at least one month of active phase symptoms unless successfully treated and must result in significant impairment of social and occupational functioning⁴. This study emphasizes the implication of the sociodemographic data along with pattern of symptom presentation of schizophrenia in Bangladeshi cultural back ground.

Materials and Methods

This cross sectional study was carried out covering a total of fifty patients conducted in psychiatry department of Combined Military Hospital (CMH), Dhaka and National Institute of Mental Health (NIMH), Sher-e-Bangla Nagar during the period of July 2004 to September 2005.

Study instruments

- i) Semi structured questionnaire.
- ii) Non-patient version of structured clinical interview for diagnosis (SCID).
- iii) Diagnosis of schizophrenia were confirmed by using diagnostic and statistical manual (DSM-iv) of mental disorders.

Inclusion criteria included

- i) First episode cases of schizophrenia attending CMH Dhaka irrespective of sex and age.
- ii) First episode of schizophrenia attending NIMH Sher-e-Bangla Nagar irrespective of sex and age.
- iii) First time and consecutively attending CMH and NIMH Dhaka fulfilling DSM-iv operational criteria.

Exclusion criteria included

- i) Patients who were mute, stuporous and non communicable.
- ii) Patient suffering from cognitive disorder and severe medical illnesses.
- iii) Patient with history of substance related disorder.
- iv) Those psychotic cases attributable to organic disorder.

Results

In examining the socio-demographic correlates in table-I, it was clear that 60% of the patients were between 16 to

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29 years of age and only 8% of the patients were at or above the age of 40 year. The sex ratio was approaching relatively equal in that male sex constituting 54% in comparison to 46% female sex. There were equal percentages of married and unmarried patients. 90% of the patients were Muslim compared to 10% non-Muslim which included mostly Hindus. Schizophrenia affected both the illiterate and literate group which included primary, secondary and higher level constituting more than 90% of the patients. Among different social classes middle class was leading as highest percentage (42%). The percentage of unemployed (72%) was more than that of employed (28%).

Table-II shows that among the deferent symptoms persecutory delusions were highest (76%) in all age groups and it was the highest (80%) in the age group of 16-29 years. Somatic delusions were lowest (08%) amongst symptoms. Delusion of reference was 70%. Auditory hallucination also constitutes 70%. Delusion about control or possession of thought constitutes 42%. Visual or other hallucinations were 50%. Grandiose delusion was observed among 10% of patients. No statistically significant difference was present between symptoms of different age groups ($p>0.05$). Table-III

Table- I : Demographic features of Schizophrenia cases (n=50).

Attributes	Category	Number	%
Age in years	Up to 15	07	14.0
	16 to 29	30	60.0
	30 to 39	09	18.0
	> 40	04	08.0
Sex	Male	27	54.0
	Female	23	46.0
Marital status	Married	23	46.0
	Unmarried	23	46.0
	Other	04	08.0
Religion	Muslim	45	90.0
	Non-Muslim	05	10.0
Habitat	Urban	25	50.0
	Rural	25	50.0
Education	Illiterate	02	04.0
	Primary	05	10.0
	Secondary level	31	62.0
	Higher	12	24.0
Social status	Low	15	30.0
	Middle	21	42.0
	High	14	28.0
Occupation	Employed	14	28.0
	Unemployed	36	72.0

Table-II: Percentage distribution of presentation by age.

*Presentation	Age in years					p value
	<15 (n=7)	16-29 (n=30)	30-39 (n=9)	>40 (n=4)	Total (n=50)	
Delusion of reference	71.4	70.0	66.7	70.0	70.0	$p>0.05$
Persecutory delusions	57.1	80.0	77.8	70.0	76.0	-
Grandiose delusions	14.3	13.3	0.0	0.0	10.0	-
Somatic delusions	14.3	6.7	11.1	0.0	08.0	-
Delusion about possession of thought	42.8	46.7	33.3	25.0	42.0	$p>0.05$
Auditory hallucination	71.4	80.0	44.4	50.0	70.0	$p>0.05$
Visual or other hallucinations e.g., gustatory, olfactory	57.1	53.3	44.4	25.0	50.0	$p>0.05$

*Multiple responses

shows that in both sexes persecutory delusions were highest (78%), the second being auditory hallucinations (70%). Delusion of reference, delusion of persecution and delusion of control or possession were present more in males (81%, 85%, 56% respectively) than of females (48%, 70%, 26% respectively). Auditory hallucination and somatic delusions were present more in female ((78%, 13% respectively) than that of male (63%, 07% respectively). Analysis revealed that delusion of reference, grandiose delusions, delusion of control possession of thought were significantly high among the male patients compared to female patients ($p<0.05$), but no statistically significant difference was observed with other symptoms ($p>0.05$).

Table- III: Percentage distribution of presentation by sex.

*Presentation	Sex		Total (n=50)	p value
	Male (n=27)	Female (n=23)		
Delusion of reference	81.5	47.8	66.0	$p<0.01$
Persecutory delusions	85.2	69.6	78.0	$p>0.05$
Grandiose delusions	22.2	0.0	12.0	$p<0.04$
Somatic delusions	7.4	13.0	10.0	$p>0.05$
Delusion of control possession of thought (insertion, withdraw, broadcasting)	55.6	26.1	42.0	$p<0.03$
Auditory hallucinations	63.0	78.3	70.0	$p>0.05$
Other hallucinations (visual, gustatory, and olfactory)	40.7	56.5	48.0	$p>0.05$

*Multiple responses

Table-IV: Percentage distribution of presentation by level of education.

*Presentation	Level of Education				
	Illiterate (n=2)	Primary (n=5)	Secondary (n=31)	Higher (n=12)	Total (n=50)
Delusion of reference	100.0	60.0	67.7	66.7	68.0
Persecutory delusions	100.0	40.0	83.9	75.0	78.0
Grandiose delusions	0.0	0.0	12.9	16.7	12.0
Somatic delusions	50.0	0.0	12.9	08.3	12.0
Delusion of possession of thought	0.0	20.0	32.3	75.0	42.0
Auditory hallucinations	50.0	60.0	67.7	83.3	70.0
Visual and other hallucinations e. g. gustatory, olfactory	0.0	60.0	48.5	50.0	48.0

*Multiple responses

Table-IV shows that persecutory delusions and auditory hallucinations were highest in all educational groups respectively 78% & 70%. Delusion of reference and non auditory hallucinations constitutes 68% & 48% respectively. Delusion of control and possession was 42%. The lowest rate was grandiose and somatic delusion (12%).

Table-V: Percentage distribution of presentation by marital status.

*Presentation	Marital Status				p value
	Married (n=23)	Unmarried (n=23)	Other (n=4)	Total (n=50)	
Delusion of reference	78.3	65.2	100.0	74.0	p>0.05
Persecutory delusions	82.6	69.6	75.0	80.0	p>0.05
Grandiose delusions	0.0	17.4	50.0	12.0	-
Somatic delusions	08.7	08.7	25.0	10.0	p>0.05
Delusion of control/possession of thought	30.4	47.8	75.0	42.0	p>0.05
Auditory hallucination	56.5	78.3	100.0	70.0	p>0.05
Visual, Other hallucinations e. g gustatory, olfactory	39.1	65.2	25.0	50.0	p>0.05

*Multiple responses

Table-V shows that persecutory delusion (80%), delusion of reference (74%) and auditory hallucinations were more prevalent than grandiose and somatic delusion. Persecutory delusion and delusion of reference were more in married group. Delusion of control and possession and hallucination were more common in unmarried group than those with married group. Analysis found no statistically significant difference between married and unmarried patients (p>0.05).

Table-VI shows that delusion of reference (80%) was highest in respect of occupation especially those of

Table-VI: Percentage distribution of presentation by occupation

*Presentation	Occupation			p value
	Unemployed (n=36)	Employed (n=14)	Total (n=50)	
Delusion of reference	77.8	85.7	80.0	p>0.05
Persecutory delusions	72.2	92.8	78.0	p>0.05
Grandiose delusions	11.1	00.0	08.0	-
Somatic delusions	05.6	07.1	06.0	-
Delusion of control/possession of thought	41.7	42.9	42.0	p>0.05
Auditory hallucination	77.8	57.1	72.0	p>0.05
Visual & other hallucinations e. g gustatory, olfactory	58.3	35.7	52.0	p>0.05

*Multiple responses

employed (85.7%). Delusion of persecution (78%) and auditory hallucination (72%) was also higher. Both auditory and non-auditory hallucinations were more common (72%, 52% respectively) in unemployed group most of whom are female. Analysis revealed no statistically significant difference between unemployed and employed patients (p>0.05).

Table-VII shows persecutory delusions being highest (76%) and auditory hallucination was the next (68%). The

Table-VII: Percentage distribution of symptom presentation by habitat

*Presentation	Habitat			p value
	Urban (n=25)	Rural (n=25)	Total (n=50)	
Delusion of reference	68.0	60.0	64.0	p>0.05
Persecutory delusions	72.0	80.0	76.0	p>0.05
Grandiose delusions	16.0	08.0	12.0	p>0.05
Somatic delusions	12.0	08.0	10.0	p>0.05
Delusions of control/possession of thought	48.0	36.0	42.0	p>0.05
Auditory hallucination	64.0	72.0	68.0	p>0.05
Visual & other hallucinations e. g gustatory, olfactory	64.0	36.0	50.0	p<0.05

*Multiple responses

least was the percentage of grandiose and somatic delusion, respectively 12% and 10%. Persecutory delusions and auditory hallucination were more in rural setting, where as delusion of reference and delusion of control/possession of thought and non auditory hallucination were more in urban setting. Analysis found that no statistically significant difference was between urban and rural patients (p>0.05), except visual and other hallucinations e.g. gustatory, olfactory which were significantly high among the urban patients (p<0.05).

Table-VIII shows, persecutory delusions highest (76%) was the commonest presentation followed by auditory

Table-VIII: Percentage distribution of presentation by religion.

*Presentation	Religion			p value
	Muslim (n=45)	Non-muslim (n=5)	Total (n=50)	
Delusion of reference	64.4	80.0	66.0	p>0.05
Persecutory delusions	77.8	60.0	76.0	p>0.05
Grandiose delusions	11.1	00.0	10.0	p>0.05
Somatic delusions	13.3	00.0	12.0	p>0.05
Delusions of control/possession of thought	42.2	40.0	42.0	p>0.05
Auditory hallucination	66.7	100.0	70.0	p>0.05
Visual & other hallucinations e. g gustatory, olfactory	53.3	20.0	50.0	p>0.05

*Multiple responses

hallucination (70%), delusion of reference (66%), non-auditory hallucination (50%), delusion of control/possession of thought (42%). Persecutory delusion and non auditory hallucination was higher in Muslims and where as delusion of reference and auditory hallucination was higher in non-Muslims. Analysis

revealed no statistically significant difference between Muslim and non-Muslim patients ($p>0.05$).

Table- IX shows that around 81% of middle class of patients have persecutory delusions. Among the all classes on average persecutory delusion was also

Table- IX: Percentage distribution of presentation by socio-economic condition.

*Presentation	Socioeconomic condition				p value
	Low (n=15)	Medium (n=21)	High (n=14)	Total (n=50)	
Delusion of reference	53.3	76.2	64.3	68.0	$p>0.05$
Persecutory delusions	66.7	81.0	78.9	76.0	$p>0.05$
Grandiose delusions	13.3	09.5	14.3	12.0	$p>0.05$
Somatic delusions	06.7	04.8	21.4	10.0	$p>0.05$
Delusions of control/possession of thought	26.7	42.9	50.0	40.0	$p>0.05$
Auditory hallucination	66.7	66.7	78.6	70.0	$p>0.05$
Visual & other hallucinations e. g. gustatory, olfactory	46.7	42.9	71.4	52.0	$p>0.05$

*Multiple responses

commonest in all group. Low and middle class in Bangladeshi culture constitutes most of the patients. Among them auditory and non auditory hallucinations were highest in higher social classes but persecutory delusion and delusion of reference were higher more in low & middle class. Analysis revealed no significant difference in economic classes ($p>0.05$).

Discussion

This study was a hospital based cross sectional study to ascertain the demographic correlates of schizophrenia as well as patterns of common symptom presentation in Bangladeshi cultural perspective. It was found that 54% of the patients were male and 46% were female. This observation coincides with the study of other workers who observed schizophrenia to be more common in male than female^{2,4}.

Patients in this study belong to age from 14 to 45 years, though majority of them were adolescent or young adults. About 60% of the patients belonged to the age group 16 to 29 years. These findings are consistent with those reported by Sadock².

The equal distribution of both married and unmarried in this study implies that marriage, though considered as a strong bondage and support, has no protective role. Divorce rate (8%) is not conclusive whether separation or divorces was precipitated it or it is the effect of disease process. Study also reflects that 42% were of middle class and 28 % were from lower class that coincides with social causation hypothesis and drift hypothesis⁶⁻⁹.

In this study both the urban and rural frequencies were equal (50%) in number which is consistent with observation of other study where different workers observed that the risk of schizophrenia may be greater amongst those born or brought up in poor urban areas^{10,11}. In this study based on SCID, the most frequent presenting symptom irrespective of demographic variables was

persecutory delusion presented in 76% of all age groups. It corresponds to WHO survey where the percentage of delusion of persecution was 64%^{14,15}.

The next frequent symptom was auditory hallucination (70%) that also conforms with WHO survey in 1973 where the rate was 74%. Delusion of reference occupies the third position in being about 70% which also correspond with the survey rate (70%). Visual and other hallucination rate found in this study was 50%. All these frequencies are consistent with all cross cultural studies of hallucination¹⁴⁻¹⁶. Delusion of control and/or possession of thought especially thought insertion was more frequent approximately 42%. The least frequent symptoms were somatic delusion (10%), grandiose delusions (12%) which also conforms in survey by other worker¹⁷.

It was also evident from the above study that the average percentage of persecutory and auditory hallucination was more in the late onset (more than 40 years) cases than that of early onset cases (below 15 years) which also conforms with the study of other workers where late onset cases showed more hallucination and delusions and less thought disorder than early onset cases^{16,17}.

Conclusion

Presentation of patients varies from individual to individual but a few regularly recurring patterns could be identified. Individually the positive symptoms were less common than the negative symptoms. Thought disturbance included ideas of reference and various kinds of delusions. Delusion of persecution was commonest in Bangladeshi patients followed by delusion of reference and thought insertion. Auditory hallucinations were particularly common and a significant number of patients with schizophrenia also manifested visual hallucinations. Other types of hallucinations were particularly absent or rare. It now may be concluded that this study might have been able to create a baseline normative value in Bangladeshi cultural setting and would facilitate and generate interest for future studies, especially on areas not focused in this study. Future epidemiologic work in schizophrenia should use multisided prospective long term studies.

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