



**Research Article**

**COGNITIVE DYSFUNCTION IN PATIENTS OF SCHIZOPHRENIA IN STATE MENTAL HEALTH HOSPITAL**

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**ABSTRACT**

**Aim:** To study cognitive dysfunction in schizophrenia patients in State mental health hospital, Shimla.

**Material and methods:** We did a cross-sectional observation in patients diagnosed with schizophrenia in our hospital. After informed consent sociodemographic information and clinical characteristics were collected. Cognitive assessment was done using Mini mental state examination.

**Results:** The mean age of participants was around 37 years and most were male and single. Olanzapine was most common prescribed drug second most common was haloperidol. Mean MMSE score was 20.08 with majority of patients had moderate dysfunction (47.8%).

**Conclusion:** It is evident in this study that cognitive impairment is significant component and often overlooked in schizophrenia and institutionalisation also plays a role. The psychopathological factors also play crucial role in cognitive deterioration in schizophrenia.

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**INTRODUCTION**

In psychotic illness mainly schizophrenia cognitive deterioration is one of the core domains which is acknowledged since beginning when Kraepelin coined term “Dementia Praecox” to describe these features. In recent study it is seen that around 50-70% of patients of schizophrenia had significant cognitive deterioration.<sup>1</sup>

Cognitive deficits were reported even before illness started mainly in vulnerable groups which are mainly seen in first episode and continue through middle age<sup>2</sup>, and exacerbate in later life, which can be due to initial delay in treatment.<sup>3</sup>

Cognitive symptoms often precede the other clinical symptoms which lead to functional decline from previous level.<sup>4,5</sup> If association of these symptoms is studied modest association was seen with negative symptoms but no robust evidence of association with positive symptoms is there.<sup>5</sup>

In longitudinal follow up studies it is observed that prolonged hospitalisation impairs the cognitive functions more than the illness itself which is seen in chronically hospitalized patients.<sup>4</sup>

Considering all the evidence it is apparent that these deficits signify more of a dimension of illness rather than an isolated complaint. The current study is aimed at examining cognitive deficits in patients admitted in our hospital.

**MATERIAL AND METHODS**

We did a observation of cross-sectional nature in our hospital in schizophrenia diagnosed patients as per ICD-10. Proper informed consent was taken after which socio-demographic and clinical information was collected. Cognitive deficits were assessed on MMSE.

**Statistical Analysis**

Data collected and analysed using the SPSS software version 20. All results were assembled and evaluated by proper statistical analysis.

**RESULTS**

Among the entire sample, males represent nearly 74% of entire sample and females were 26.1%. Mean age of sample was 37.28 years. Most of participants were unmarried (76%) and half of them had substance use history. In treatment olanzapine was most commonly prescribed antipsychotic.

The participants had scored most on general psychopathology subscale (28.3%) on PANSS which was followed by negative symptoms. On Mini mental state examination (MMSE) mean score was 20.08 ± 2.98. Around 47% participants had moderate cognitive dysfunction (<20 MMSE score), 43% had mild dysfunction (20-24 MMSE score).

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**Table 1** Socio-demographic profile of patients

Variables	Patients N=47	
	Mean (SD)	Frequency (%)
Age in years	37.28	(11)
<b>Gender</b>		
Male	34	(73.9%)
Female	12	(26.1%)
<b>Marital status</b>		
Single	35	(76.1%)
Married	11	(23.9%)
<b>Medication</b>		
Olanzapine	17	(37.0%)
Haloperidol	12	(21.7%)
Others	17	(37.0%)
<b>Substance use history</b>		
Yes	23	(50%)
No	23	(50%)

**Table 2** Clinical profile of patients.

Variables	Schizophrenia in remission non-TRS Group I N=35	
	Mean (SD)	Frequency (%)
<b>PANSS</b>		
Positive subscale score	14.89	(6.87)
Negative subscale score	18.08	(7.89)
General psychopathology subscale score	28.34	(9.70)
PANSS Depression subscale	6.60	(2.48)
Total PANSS Score	58.32	(21.93)
<b>MMSE</b>		
Total score	20.08	(2.98)
<b>Cognitive dysfunction</b>		
No dysfunction	04	(8.7)
Mild dysfunction	20	(43.5)
Moderate dysfunction	22	(47.8)

**DISCUSSION**

In schizophrenia cognitive deficits play a crucial role and contribute markedly toward lower quality of life<sup>6,7</sup> and also impair social functioning of patients<sup>8,9</sup>. Schizophrenia is considered to be one of most common chronic psychotic illness and form bulk of inpatients in our hospital. In our study around 47% of participants had moderate cognitive deficits on MMSE which is in accordance with the literature<sup>1</sup>.

Our findings validate that substantial patients of schizophrenia have cognitive impairment which commonly precedes the first episode and they continue to experience the same during course of illness. However, the nature of these deficits varies across neuropsychological functions. These deficits are often overlooked and need proper assessment and efforts in form of remediation therapies to improve the quality of life and functioning of patient. These symptoms however can not be ascribed only to illness other factors in form of side effects of medications, psychosocial factors and co-morbid conditions also predispose the patients for these symptoms. Further efforts should be done to delineate which of the deficits are due to the disease, and which are due to psychosocial issues.

Lastly, these observations bring the need of screening these changes in early stages of illness and also to formulate better remediation therapies to manage them.

**CONCLUSION**

Cognitive deficits in chronically hospitalised patients of schizophrenia should be given focus in form of investigation and managing them, and it is significant to highlight the factors which can be screened and prevented which may lead to or worsen these deficits. All these efforts may increase the chances of recovery and lead to higher functioning and better quality of life for patients with schizophrenia.

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