

# Common behavioral problems among patients with dementia attending in tertiary care hospitals in Dhaka city

Sadya Tarannum,<sup>1</sup> Bushra Sultana,<sup>2</sup> Sultana Algin,<sup>3</sup> Atiqul Haq Majumder<sup>4</sup>

<sup>1</sup>Assistant Professor, Ashiyan Medical College and Hospital, Khilkhet, Dhaka, Bangladesh; <sup>2</sup>Psychiatrist, Dhaka, Bangladesh; <sup>3</sup>Associate Professor, Department of Psychiatry, Bangabandhu Sheikh Mujib Medical University; <sup>4</sup>Doctoral Student, Department of Psychiatry, University of Oulu, Finland.

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## Correspondence:

Sadya Tarannum

Mobile:

+8802-01711884136

Email

terminus\_light@yahoo.com

## Summary:

Elderly people are increasing day by day both in developing and developed country due to development of new treatment, increased awareness of people and improved health facilities. This present study was conducted with the aim to identify behavioral problems according to severity of dementia. This descriptive cross sectional study was conducted in the Department of Psychiatry and Department of Neuro-medicine of Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh and in National Institute of Mental Health (NIMH), Sher-E-Bangla Nagar, Dhaka, Bangladesh from September 2013 to March 2015. A total 150 patients were selected purposefully; severity of dementia was graded according to Mini Mental State Examination (MMSE) and another questionnaire was applied to detect behavioral problems of patients. In this study mild dementia was found as the most frequent (38%), followed by severe dementia (35.3%) and moderate dementia (26.7%). The results indicated that behavioral problem was more common in severe dementia. Behavioral problem was more common in severe dementia than in mild and moderate dementia. Among behavioral problems sleep disturbance and sexual disturbance were statistically significant. This study provides information about pattern of behavioral problems among patients with dementia. Liaison approach with other discipline may improve quality of life of these patients treatable.

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## Introduction

Elderly people are increasing day by day both in developing and developed country due to development of new treatment, increased awareness and improved health facilities. With rapid increase in the number of elderly population and under the condition of socio-economic transformation, the elderly persons are experiencing a difficult time. Most of them are suffering from different types of psychiatric disorders.<sup>1</sup> Patients with dementia need to adjust new life style which is stressful for them. Dementia reduces the ability to learn, reason, retain or recall past experience and there is also loss of memory, patterns of thoughts, feelings and activities. Behavioral problems include restlessness, agitation, sleep disturbances, eating difficulty, disinhibition and resistance to care.<sup>2</sup> Behavioral and psychological symptoms are the non cognitive symptoms experienced in dementia. Non psychotic behavior associated with dementia includes aggression, wandering, eating disorder, sleep disturbance, sexual disturbance, resistance to care and lack of social behavior.<sup>3</sup> Agitation 30-70%,<sup>4</sup> wandering 15-40%<sup>5</sup> and sleep disturbances are common in 30-40%<sup>4</sup> of the patients with dementia. Behavioral and psychological symptoms of dementia

(BPSD), also known as neuropsychiatric symptoms, represented a group of non-cognitive symptoms and behavior. It is estimated that BPSD affect upto 90% of all dementia over the course of their illness. It is associated with poor outcomes, including distress among patients and caregivers, long-term hospitalization, misuse of medication, and increased health care costs.<sup>6</sup> One study done in Pune, India showed that, psychological and behavioral symptoms were associated with dementia. Analysis of psychological symptoms showed that the commonest symptoms are irritability (15.1%) followed by depression (5.8%), agitation (5.8%), poor sleep (5.2%), hallucination (4.7%), unconcern (4.1%), anxiety (3.5%), disinhibition (2.9%), suspiciousness (2.3%) and poor appetite (2.3%).<sup>7</sup> Behaviors such as aggression, screaming, restlessness, agitation and wandering are frequent reason for referral to specialist mental health services for older people.<sup>8</sup> The lives of patients with dementia are severely disrupted because of the loss of memories of person, place, time, and circumstances and how to handle them. Some patients often have recent telephone conversations with people who have died some time ago. This sort of problem is likely to be a result of a misunderstanding of time.<sup>9</sup> Considering

this fact, present study was conducted with the aim to identify behavioral problems according to severity of dementia. Findings of this study will provide baseline information to stimulate further studies as well as be helpful for the development of awareness and improvement of quality of life of individuals in ageing society.

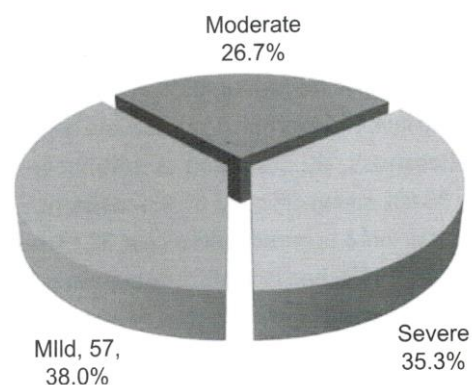
### Materials and methods

This was a descriptive cross sectional study conducted among patients having dementia from September 2013 to March 2015 in the Department of Psychiatry and Department of Neuro-medicine of Bangabandhu Sheikh Mujib Medical University, Shahbag, Dhaka and National Institute of Mental Health, Sher-E-Bangla Nagar, Dhaka. Researcher took patients from dementia clinic of BSMMU and geriatric clinic of NIMH on their respective days and also from indoor and outdoor of respective institutes. A total number of 150 patients having the age range of 60 years and above irrespective of sex were selected purposefully and informed consent was taken from patient and their care givers or their legal guardians. Each case of severity of dementia was graded according to Mini Mental State Examination (MMSE) by the consultants of respective institutes. Another questionnaire was applied to detect behavioral problems of patients. Due to lack of validated tool in Bangladesh researcher herself formed this questionnaire to diagnose behavioral problem in patients with dementia. It included wandering, aggression, sleep disturbances, restlessness, eating disorder & lack of social behavior.

for Social Sciences (SPSS), version-15. Level of significance was measured at 95% confidence interval at 5 % level of significance.

### Results

According to MMSE among participants in this study mild dementia was found as the most frequent (38%), followed by severe dementia (35.3%) and moderate dementia (26.7%) (Figure 1).



**Figure 1: Types of dementia according to severity by MMSE (n=150)**

Behavioral problem was more common in severe dementia than in mild and moderate dementia. Among behavioral problems sleep disturbance and sexual disturbance was statistically significant ( $p < 0.05$ ) (Table 1).

**Table 1: Behavioral problem by the types of dementia according to severity (n=150)**

Behavioral problem	Severity			p value*
	Mild	Moderate	Severe	
Restlessness	50 (87.7)	35 (87.5)	50 (94.3)	0.42
Sleep disturbances	47 (82.5)	39 (97.5)	49 (92.5)	0.04*
Remaining in sleep	12 (25.5)	10 (25.6)	13 (26.5)	
Early morning awakening	17 (36.2)	15 (38.5)	15 (30.6)	
Difficulty falling in sleep	12 (25.5)	11 (28.2)	14 (28.6)	
Increased sleep	6 (12.8)	3 (7.7)	7 (14.3)	
Wandering	32 (56.1)	23 (57.5)	37 (69.8)	0.28
Eating disorder	45 (78.9)	33 (82.5)	46 (86.8)	0.55
Increased appetite	5 (11.1)	1 (3.0)	3 (6.5)	
Decreased appetite	40 (88.9)	32 (97.0)	43 (93.5)	
Does not allow care giver to take care	33 (57.9)	20 (50.0)	36 (67.9)	0.21
Sudden aggressive behavior	44 (77.2)	34 (85.0)	37 (69.8)	0.22
Sexual disturbance	20 (35.1)	22 (55.0)	17 (32.1)	0.05*
Decreased drive	17 (85.0)	22 (100.0)	17 (100.0)	
Increased drive	3 (15.0)	0 (0)	0 (0)	
Lack of social behaviour	47 (82.5)	37 (92.5)	47 (88.7)	0.32
Others	0 (0)	1 (2.5)	2 (3.8)	

\*Signification association

## Discussion

Proportion of mild, moderate and severe dementia was almost same. No study was found about the prevalence of mild, moderate and severe dementia. Behavioral problem was common among patients suffering from dementia. Mild dementia had 87.7% restlessness, 82.5% sleep disturbances, 56.1% wandering, 78.95% eating difficulty, 57.9% resistance to care, 77.2% had sudden violent & aggressive behavior 35.1% sexual disturbance and 82.5% had lack of social behaviour. Moderate dementia had 87.5% restless, 97.5% sleep disturbances, 57.5% wandering, 82.5% eating difficulty, 50 % had resistance to care, 85% sudden violent and aggressive behaviour, 55% sexual disturbances and 92.5% had lack of social behaviour. Severe dementia had 94.3% restlessness, 92.5% sleep disturbances, 69.8% wandering, 86.8% eating difficulty, 67.9% resistance to care, 69.8% sudden violent & aggressive behaviour, 32.1% had sexual disturbance and 88.7% had lack of social behaviour. In above behavioral problems sleep disturbance was statistically significant. This result was similar to these studies where authors found that major depression decreased in severe stages, while agitation, aggression, and psychosis were more frequent in late stages. Anxiety, wandering, irritability, inappropriate behavior, uncooperativeness, emotional lability associated with agitation, aggression, and psychosis, which found in severe dementia.<sup>10</sup> It was clear that behavioral symptom was more common in severe dementia. Patients with severe dementia came with only complaints of behavioral problem. It was consistent with this study. Another study showed that, prevalence of sleep disturbance was 24.5% among mild to moderate Alzheimer's disease associated with other behavioral disturbances.<sup>11</sup> It was not consistent with this study. Researcher found that demented patients usually slept at daytime, due to forgetfulness they usually failed to remember when they usually sleep. Sometimes caregivers did not notice when they usually sleep due to negligence. Demented people usually frequently complained about sleep disturbance. Sometimes demented people could not sleep properly due to association with other behavioral problems. Another study showed that anxiety was present up to 94.5% in vascular with severe dementia. In the other hand this study showed that in severe dementia agitation was present up to 55% of patents.<sup>12</sup> So, this might be the cause of inconsistency. Anxiety 54%, eating problem 28% and aberrant motor behavior 47% was found in patients with dementia in a study, done on 125 demented people and most of them already took anti-demented and other psychotropic. In this study most patients at the time of data collection did not take any medication. It was their first visit. So, this result was inconsistent with that study.

## Conclusion

Despite a number of limitations (like small sample size, short duration of study, lack of data from caregivers, purposive sampling, and lack of validated tool) this study provides information about pattern of behavioral problems among patients with dementia. The findings in this study emphasizes that more awareness is required regarding management of patients with dementia. Patients with dementia need specific treatment and management. Liaison approach with other discipline is needed for these patients. To increase the quality

of life and to avoid treatment complication it is necessary to give a comprehensive management in this elderly group.

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