



# A STUDY TO ASSESS THE PREVALENCE OF DEMENTIA AMONG ADULTS IN A SELECTED RURAL AREA OF WEST BENGAL

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**Abstract:** A study was conducted to assess the prevalence of dementia among adults in a selected rural area of West Bengal. It was a descriptive study. The objective of the study was to assess the prevalence of dementia among adults in a selected rural area of West Bengal. The study was conducted at Nawabpur, North 24 Parganas under Reckjoani BPHC. A survey research approach was adopted for the study. The population of the study consisted of adults in the age group of 50 years and above with a sample size 30. Data was collected by Standardized Mini Mental Status Examination. The data collection was done from 24.1.11 to 29.1.11. The study findings revealed that 50% were in the age group 60 – 64 years, 53.33% were male and majority of them (70%) had primary level of education. Findings also showed that 20% of them were supposed to have dementia. The findings of the study have several implications for nursing education, practice, administration and research.

**Index Terms** – Assessment, prevalence, dementia

## **Introduction:**

Dementia is the progressive deterioration in cognitive functions serious enough to interfere with performing the tasks of daily life. Progressive means the symptoms will gradually get worse. Dementia can occur to anyone at any age, although it is most commonly associated with aging. The World Health Organization (WHO) estimates that more than 55 million people worldwide have dementia as of June 2024, with over 60% of those people living in low- and middle-income countries. The WHO also estimates that nearly 10 million new cases of dementia develop each year, which is one new case every 3.2 seconds. As the global population ages, the number of people with dementia is expected to triple to 152 million by 2050. The WHO considers dementia a public health priority. According to a 2023 study, 7.4% of adults over 60 in India have dementia, which is about 8.8 million people. This is higher than the 2020 estimate of 5.3 million. The prevalence of dementia varies by age, education, sex, and urban or rural location, and there are also differences between states. The relatively high prevalence of smoking and the high and rising prevalence of type 2 diabetes are matters of concern in India. These coupled with anticipated life style changes could affect the incidence rates and lead to a higher than expected prevalence in the near future.

## **Problem statement**

A study to assess the prevalence of dementia among adults in a selected rural area of West Bengal.

## **Objectives of the study**

1. To assess the prevalence of dementia among adults in a selected rural area.

## **Operational definitions**

1. Prevalence: The total number of individuals in a population who have dementia at a specific period of time.

2. Dementia: The progressive decline in cognitive functions (particularly thinking, reasoning, memory, attention and concentration, language and problem solving) due to damage or disease in the brain beyond what might be expected from the normal aging process.

### Assumptions

1. The respondents will express their free response.
2. The respondents will participate and interact voluntarily.
3. Dementia can be screened through Standardized Mini Mental Status Examination (MMSE).

### Delimitations

1. The study is restricted to those adults who are available during study period.
2. The study sample is restricted to the age group of 50 years and above.
3. The study is restricted to those adults who are able to understand English or Bengali.

### Research methodology:

#### Research approach

Quantitative research approach was adopted for the study.

#### Research design

Descriptive survey research design was adopted for the study.

#### Setting of the study

The study was conducted at Nawabpur, North 24 Parganas under Reckjoani BPHC.

#### Population

The population in this study consisted of adults in the age group of 50 years and above.

#### Sample & Sampling technique

##### Sample

In the study 30 adults in the age group of 50 years and above of the above mentioned setting were selected as the sample.

##### Sampling technique

The sample was selected by purposive sampling technique among the available adults.

#### Data collection tool and technique

Considering the objectives of the study Standardized Mini Mental Status Examination was used to assess the prevalence of dementia among adults in the age group of 50 years and above. So both interviewing and observation techniques were used for the collection of data from the individual subject.

Table 1 Data collection tools and techniques

Data collection tool	Techniques
Tool I – Structured interview schedule	Interviewing
Tool II: Standardized Mini Mental Status Examination	Interviewing & observation

#### Description of data collection tools

Tool I: It consists of items of back ground information. It was composed of 3 items to collect information regarding sample characteristics. It includes age, sex and educational status.

Tool II: It consists of 11 items for the assessment of prevalence of dementia. It is an 11-question measure that tests five areas of cognitive function: orientation, registration, attention and calculation, recall, and language. The maximum score is 30. The responses were transferred into scores by assigning '1' score point to each correct response. A score of 23 or lower is indicative of cognitive impairment. The interviewing technique was used to collect information and for the remaining areas the observation technique was used.

#### Data collection procedure

The pilot study was conducted at Rajabazar, Narkeldanga Main Road, Kolkata – 11. For pilot study data collection was done from 10.01.11 to 15.01.11. The sample size for pilot study was 10.

The final study was conducted at Nawabpur, North 24 Parganas under Reckjoani BPHC. The data were collected from 24.1.11 to 29.1.11.

- ❖ Formal administrative permission was sought from BMOH of Reckjoani BPHC.
- ❖ Self introduction and establishment of rapport with the participants were done. To obtain the free and frank responses the purpose of study was explained to the participants separately and participants were assured about confidentiality of their responses.

- ❖ Verbal consent was taken from the participants for the willingness to take part in the study.
- ❖ The data collection was done according to the suitability of time of the participants.
- ❖ 30 adults in the age group of 50 years and above were selected by purposive sampling technique.
- ❖ Assessment for the prevalence of dementia was done with the help of Standardized mini Mental Status Examination and information was collected from them at a date and time convenient to them.
- ❖ No problem was faced during data collection period.

#### Plan for data analysis

- ❖ The data were analyzed with the help of statistical method based on the objectives of the study.

#### Results:

Table 2 Frequency and percentage distribution of sample according to age, sex and educational status.

N=30

Serial no.	Sample characteristics	Frequency	Percentage	
1.	Age			
	❖ 50 – 54 years	1	3.33	
	❖ 55 – 59 years	2	6.67	
	❖ 60 – 64 years	15	50	
	❖ 65 – 69 years	7	23.33	
2.	Sex			
	❖ Male	16	53.33	
	❖ Female	14	46.67	
	3.	Educational status		
		❖ Primary	21	70
❖ Secondary		9	30	
❖ Higher Secondary		-	-	
	❖ Graduation and above	-	-	

Data presented in Table 2 showed that 15 out of 30 subjects (50%) are in the age group 60 – 64 years, 16 out of 30 of them (53.33%) are male and majority of them (70%) have primary level of education.

Table 3 Frequency and percentage distribution of participants in respect of cut off point as measured by Standardized Mini Mental Status Examination format

N=30

Participants	Cut off point	frequency	Percentage
Adults in the age group of 50 years and above.	No. of participants above the cut off point	24	80
	No. of participants below the cut off point	6	20

Data presented in Table 3 showed that 6 out of 30 participants scored below the cut off point. So 20% of them were supposed to have dementia.

#### Conclusion-

The following conclusions were drawn based on the findings of the study:

- ♣ Dementia can occur to anyone at any age, although it is most commonly associated with aging.
- ♣ There is need for awareness regarding dementia among the common people.
- ♣ People must have information regarding available community resources that the caregivers can avail.

#### Implications –

The findings of the study have implications for nursing practice, nursing education, nursing administration and nursing research.

**Nursing practice:**

Health teaching is the primary function of all nurses and should be carried out routinely. So teaching regarding care of dementia client should be provided routinely to the care givers.

**Nursing education:**

With changing health care trends, nursing education must emphasize on primary health care approach focusing on screening and early detection of dementia. The nursing students should be taught the importance of educating the community people regarding the screening and management of dementia. Moreover, attention must be directed towards lower cost approaches in the care of dementia.

**Nursing administration:**

Nursing personnel working in various health care setting should be given inservice education to update their knowledge and abilities in identifying learning needs of the community people and in planning, conducting and evaluating teaching for different categories of people. Nursing service departments should have a health education cell with a group of adequately prepared nurses for developing health education materials for teaching clients and care givers.

**Nursing research:**

There is a need for extensive and intensive nursing research in the area, so that the strategies for better method for educating people can be developed.

**Limitations –**

- ♣ The study was confined to smaller number of subjects which limit the generalization of the findings.
- ♣ Standardized Mini Mental Status Examination format was used only with literate people.

**Recommendations –**

On the basis of the findings of the study the following recommendations are made:

- ♣ A similar study may be replicated on a large sample, thereby findings can be generalized for a large population.
- ♣ A study may be conducted to assess the knowledge, attitude and skill of the care givers in providing care to the dementia people.
- ♣ A comparative study may be conducted to assess the prevalence of dementia between male and female.
  - ♣ A comparative study may be conducted to assess the prevalence of dementia between the urban and rural population.

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**Conflict of interest:**

There had been no conflict of interest, financial or otherwise.