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## Prevalence of cognitive impairment among elderly population

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### Abstract

**Aim:** The aim of the study was to find out the prevalence of cognitive impairment among elderly population.

**Methods:** This was a survey study. For this study 100 subjects were selected from in and around Mandi Gobindgarh. The data was collected with the help of demographic data, Mini Mental State Examination and analysed with the help of suitable tools.

**Results:** 100 subjects were taken as sample and among male and female participants screened for cognitive impairments 74.98% were females and 63.88% were males. Out of those 36.11% (males) and 25% (females) were having normal cognition, 38.88% (males) and 29.68% (females) were having mild cognitive impairment, 25% (males) and 34.37% (females) were having moderate cognitive impairment, 0% (males) and 10.93% (females) were having severe cognitive impairment.

**Conclusion:** The above study concludes that the prevalence of cognitive impairment among elderly participants was found out to be mild to moderately affected. Females were more affected than males in terms of cognitive decline.

**Keywords:** Cognition, impairment, elderly, depression

### Introduction

Age is a major risk factor for many medical conditions, such as depression and cognitive impairment, and the number of people suffering from these conditions will rise significantly as the population over 65 grows. Memory, attention, language, visuospatial skills, and executive functioning are all parts of multifaceted cognition (Prince *et al.*, 2016) <sup>[1]</sup>. Low cognitive function has been associated with increased morbidity and mortality, poorer medication adherence, poorer physical and mental health, and low health literacy (Berger *et al.*, 2016) <sup>[2]</sup>. It is predicted that the proportion and number of older people will rise particularly quickly in China, India, and Latin America. The global population of those over 60 will have grown by 1.25 billion by 2050, making up 22% of the total, with 79% of them residing in less developed areas (Prince *et al.*, 2013) <sup>[3]</sup>.

In addition to cognitive decline, depression is a prevalent mental health issue that significantly affects overall functioning and well-being in older adults. Bereavement, physical health problems, social isolation, and a decline in social support are a few of the particular depression risk factors that older adults face. These factors demonstrate the complex relationships between biological, psychological, and social factors (Blazer *et al.*, 2003) <sup>[4]</sup>. Depression in later life often presents differently from depression in younger populations, with physical symptoms, cognitive decline, and functional decline taking precedence over traditional mood disorders. Despite being widespread and having a big impact, elderly depression is still underdiagnosed and undertreated, which is very painful and damaging (Hansen *et al.*, 2016) <sup>[5]</sup>.

### Methodology

**Subjects:** For this study 100 subjects were selected from in and around Mandi Gobindgarh using convenient random sampling. Data was collected from subjects by door-to-door survey after taking their consent and explaining the procedure of study.

## Selection Criteria

### Inclusion Criteria

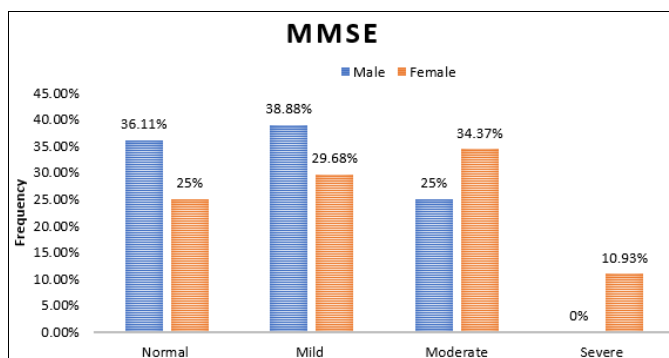
1. Subjects having age of 65 years or above were included in the city.
2. Both male and female subjects were included.

### Exclusion Criteria

1. Hearing, Visual and speaking difficulty.
2. Non-cooperative patients.
3. History of psychiatric illness.

## Result

100 subjects were taken as sample and among male and female participants screened for cognitive impairments 74.98% were females and 63.88% were males. Out of those 36.11% (males) and 25% (females) were having normal cognition, 38.88% (males) and 29.68% (females) were having mild cognitive impairment, 25% (males) and 34.37% (females) were having moderate cognitive impairment, 0% (males) and 10.93% (females) were having severe cognitive impairment.



**Graph 1:** Distribution of subjects having cognitive impairment using MMSE

## Discussion

This research aimed to determine the prevalence of cognitive impairments among elderly population. It might be due to the sociodemographic variation of study participants. As expected, different factors were capable of predicting cognitive impairment. In this study, getting older was associated with cognitive decline. This finding is in line with research conducted in Cameroon, Jamaica and Ethiopia (Gela *et al.*, 2021) [6]. The reason might be that as aging increase there is a reduction in neurotransmitters, gray matter volume and neocortical synapses that result in cognitive impairment (Legdeur *et al.*, 2018) [7].

In addition to this, as age increases, there is decrease in thinking, reasoning, and memory which is related to cognitive decline (Habte *et al.*, 2018) [8].

## Conclusion

The above study concludes that the prevalence of cognitive impairment among elderly participants was found out to be mild to moderately affected. Females were more affected than males in terms of cognitive decline. The independent predictors of cognitive impairment among older individuals were older age, being unable to read and write, being female, depression, poor social support and rural dwelling. Therefore, routine screening and social support as well as free healthcare services for the mature and older community are needed.

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