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ASSESSMENT OF DEPRESSION AND ITS RISK FACTORS AMONG GERIATRIC AGE GROUP

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ABSTRACT

Background: Depression is a commonly present among geriatric age group population. The most common etiology behind that were social deprivation, loneliness and disability in some cases, as reported in previous epidemiological studies. In majority of elderly population depression remains unrecognized. However, it indirectly exerts the burden on health care infrastructure of country. **Materials and Methods:** In the present study, a total number of 400 patients who were more than 60 years of age were attending outpatient department enrolled for present study by simple random sampling. Clearance from Institutional Ethics Committee was taken before start of study. Written informed consent was taken from each study participant. **Results-**: All participants were assessed for depression by GDS-15 scores and found that there was no depression among 176 (44%) participants, 144 (36%) had mild depression, 72 (18%) had moderate depression and8 (2%) were severely depressed. On the basis of age and GDS score we found significant association (P value > 0.05).On the basis of age and GDS-15 score we found statistically non-significant association (P value > 0.05).On the basis of gender and GDS-15 score we found significant association (P value< 0.05).On the basis of type of family and GDS-15 score we found statistically non-significant association (P value > 0.05).On the basis of socio-economic status, marital status and financial dependency status and GDS-15 score we found statistically significant association (P value< 0.05). **Conclusion:** We concluded from the present study that the burden of depression is very prevalent among our geriatric study population. Depression among geriatric population was significantly associated with female gender, financial dependents, patients who were divorced and widowed and individuals with low socio-economic status.

KEYWORDS: Depression, Geriatric, Morbidity.

INTRODUCTION

The World Health Organization has reported that world's population is aging rapidly. India too experiencing same demographic trends and it is reported that there is increase in elderly population according to census data of 2011. World Health Organization has reported that India has second largest geriatric population in the world **(1).** The census reports stated that in the census year 1991, 5.3–5.7% population was in above 60 years age group in compared to 6.0–8.0% population in the 2011 census. Depression is a commonly present among geriatric age group population. The most common etiology behind that were social deprivation, loneliness and disability in some cases, as reported in previous epidemiological studies

(2). From the ancient times, depression has been neglected among the other psychiatric disease. In majority of elderly population depression still remains unrecognized. However, it indirectly exerts the burden on health care infrastructure of country. The problem of depression is well reported and in the year 1990,World Health Organization (WHO) classified this disease depression as a public health problem which is prevalent all around the globe**(3)**.

The elderly age is vulnerable to depression and also reported to coexist with other mental health disorders. Depression is reported very common among geriatric age group and leads to common cause of disability in elderly age group. In India its prevalence was reported from 9% to 60% in various epidemiological studies. It leads to poor quality of life and decreased life satisfaction in day to day activities **(4)**. However, it is a treatable condition and improvement in quality of life is noted in various studies by the proper treatment **(5)**. Hence, we conducted the present study to assess the burden of depression among geriatric population along with its risk factors.

MATERIALS & METHODS

The present cross-sectional prospective study was conducted at department of psychiatry of our tertiary care center. The study duration was of one year from June 2017 to July 2018. Sample size of 400 was calculated at confidence interval of 95% and acceptable margin of error of 10% with the 95% study power from the epi info software version 7.2.patients who were more than 60 years of age were attending outpatient department enrolled for present study by simple random sampling. Clearance from Institutional Ethics Committee was taken before start of study. Written informed consent was taken from each study participant.

The data were collected by predesigned, multiple response type of questionnaire from each patients after taking the written consent. Cognitive impairment was evaluated by using Mini-Mental State Examination (MMSE). Patients with mini-mental state examination<25were excluded from the present study. Depression was Assessed by the 15-item GDS score (geriatric depression scale)(6). Data analysis was carried out using SPSS v22. All tests were done at alpha (level significance) of 5%; means a significant association present if p value was less than 0.05.

RESULTS

In the present study, we enrolled 400 study participants visiting outpatient departments. The age of patients was ranged from 60-88 years with the mean age of 73±8 years. Out of total 272 (68%) patients were in the age group of 60-74 years, 92 (23%) patients were in the age group of 75-84 years and 36 (9%) patients were in the age group of 85 and above years.276 (69%) were males and 124 (31%) were females.48 (12%) patients living in a nuclear family and 352 (88%) were living in a joint family.296 (74%) patients belonged to upper middle and middle class and 104 (26%) were belonged to lower middle and below class. 244 (61%) patients were married and 264 (66%) patients were financially dependent. All participants were assessed for depression by GDS-15 scores and found that there was no depression among 176 (44%) participants, 144 (36%) had mild depression,72 (18%) had moderate depression and8 (2%) were severely depressed.(Table 1)

Table 1: Distribution of studyparticipants on the basis of GDS-15 scores.

Depression per GDS score	Number of cases
Absent (0-4)	176 (44%)
Mild (5-8)	144 (36%)
Moderate (9-11)	72 (18%)
Severe (12-15)	8 (2%)

In the present study, out of total participants,38% patients were in the age group of 60-74 years had depression, 46% patients were in the age group of 75-84 years had depression and 33% patients were in the age group of 85 and above years had depression (P value > 0.05).35% of males had depression and 48% of females had depression (P value < 0.05).37% patients living in a nuclear family had depression and 44% of patients living in a joint family had depression (P value > 0.05).51% patients belonged to upper middle and middle class had depression and 32% who patients belonged to lower middle and below class had depression (P value < 0.05). 33% patients who were married had depression and 58%who were divorced

and widowed had depression (P value < 0.05). 42% patients who were financially independent had depression and 58% patients who were financially dependent had depression (P value < 0.05). (Table 2)

Table 2: Association between socio-demographic variable and depression among the study participants (N = 200).

Bio - social characteristic			Depression	P value
Variable		Number	No. of cases	
Age group (Years)	60-74	272 (68%)	38%	>0.05
	75-84	92 (23%)	46%	
	85 and above	36 (9%)	33%	
Gender	Male	276 (69%)	35%	<0.05
	Female	124 (31%)	48%	
Type of family	Nuclear	48 (12%)	37%	>0.05
	Joint	352 (88%)	44%	
Socioeconomic status	Lower middle and above	296 (74%)	51%	<0.05
	Upper lower and below	104 (26%)	32%	
Marital status	Married	244 (61%)	33%	<0.05
	Others	156 (39%)	58%	
Financial dependency	Independent	136 (34%)	42%	<0.05
	Dependent	264 (66%)	58%	

DISCUSSION

In the present study, we enrolled 400 study participants visiting outpatient departments. The age of patients was ranged from 60-88 years with the mean age of 73±8 years. Out of total 272 (68%) patients were in the age group of 60-74 years, 92 (23%) patients were in the age group of 75-84 years and 36 (9%) patients were in the age group of 85 and above years.276 (69%) were males and 124 (31%) were females.48 (12%) patients living in a nuclear family and 352 (88%) were living in a joint family.296 (74%) patients belonged to upper middle and middle class and 104 (26%) were belonged to lower middle and below class. 244 (61%) patients were married and 264 (66%) patients were financially dependent. Similar results were found in a study conducted by Ganguli M et al among elderly population and found overall high disease burden of depression among geriatric population along with high GDS scores which were significantly associated with older age, female gender and illiteracy **(7)**. Similar results were found in a study conducted by Sengupta P et al among elderly population and found overall high disease burden of depression among geriatric population which was significantly associated with older age, female gender, urban population, nuclear family, financial dependents and individuals with low socio economic status **(8)**.

In the present study, all participants were assessed for depression by GDS-15 scores and found that there was no depression among 176 (44%) participants, 144 (36%) had mild depression,72 (18%) had moderate depression and8 (2%) were severely depressed. Similar results were found in a study conducted by Pracheth R et al among elderly population and found overall high disease burden of depression among geriatric population which was significantly associated with older age, female gender, urban population, nuclear family, financial dependents and individuals with low socio economic status and substance abusers **(9).** Similar results were found in a study conducted by Rajkumar A et al among elderly population and found overall high disease burden of depression among geriatric population which was significantly associated with nuclear family, financial dependents and individuals with low socio-economic status. DSM-IV diagnosis criteria was used for assessment of major depression and found statistically significant results with health morbidities and disabilities**(10)**.Similar results were found in a study conducted by Sinha S et al among elderly population and found overall high disease burden of depression

among geriatric population along with high GDS scores which were significantly associated with older age and female gender**(11).**

In the present study, out of total participants, 38% patients were in the age group of 60-74 years had depression, 46% patients were in the age group of 75-84 years had depression and 33% patients were in the age group of 85 and above years had depression (P value > 0.05).35% of males had depression and 48% of females had depression (P value < 0.05).37% patients living in a nuclear family had depression and 44% of patients living in a joint family had depression (P value > 0.05).51% patients belonged to upper middle and middle class had depression and 32% who patients belonged to lower middle and below class had depression (P value < 0.05). 33% patients who were married had depression and 58% who were divorced and widowed had depression (P value < 0.05). 42% patients who were financially independent had depression and 58% patients who were financially independent had depression (P value < 0.05).

Similar results were found in a study conducted by Jain R et al found that depression among geriatric population was significantly associated(P value < 0.05) with older age, nuclear family, financial dependents and individuals with low socio-economic status and substance abusers **(12).** Similar results were found in a study conducted by Goyal A et al found that depression among geriatric population was significantly associated (P value < 0.05) with older age and female gender **(13).**Similar results were found in a study conducted by Taqui A et al found that depression among geriatric population was significantly associated (P value < 0.05) with older age, female gender, nuclear family, financial dependents and individuals with low socio-economic status **(14).**

CONCLUSION

We concluded from the present study that the burden of depression is very prevalent among our geriatric study population. Depression among geriatric population was significantly associated with female gender, financial dependents, patients who were divorced and widowed and individuals with low socio-economic status. Depression among geriatric population was non-significantly associated with older age and nuclear family.

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