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DEPRESSION AMONG THE ELDERLY: A CROSS SECTIONAL STUDY IN A RURAL COMMUNITY OF SOUTH INDIA

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ABSTRACT

Introduction: Depression among the elderly often remains undetected and thereby untreated. Depression results in cognitive impairment and compromises their quality of life. Objective of the study was to determine the magnitude of depression among the elderly and study the factors associated with it.

Methodology: A cross sectional study was conducted among 230 elderly. Data was collected by house to house visit to elicit information on socio demographic profile. Geriatric depression scale (GDS-30) was used to assess the burden of depression.

Results: The mean age of the study participants was 66.33 years. Almost 59.6% were depressed, 79.5% had mild depression and 20.4% had severe depression. Depression was more among the females, unemployed and those belonging to class V socio – economic status.

Conclusion: High magnitude of depression was observed among the elderly. Identification of the risk groups will thus facilitate formulation of health care services for early identification of depression and management.

Key Words: Depression, elderly, socio –demographic variables

INTRODUCTION

The increase in the elderly population represents one of the most significant demographic shifts.[1] Projections beyond 2016 made by United Nations have indicated that 21 % of the Indian population will be 60+ by 2050 which was 6.8% in 1991[2] . The life expectancy of an average Indian has increased from 54 years in 1981 to 64.6 years in 2002. In India, elderly people constitute 7.7% of total population .[3] According to Sharma, the population of people aged 60 years or above is likely to increase to 18.4% of the total population in India by the year 2025.[4]

The elderly form a vulnerable group as they suffer from physical, economic, social and nutritional problems[2]. These health problems thereby contribute to disabilities.[5] The increasing burden of health problems among the elderly will have a direct impact on the demand for health services, pension and social security payment. A study conducted in rural India among the elderly people to assess their health risks has shown association with adverse familial relationships.[6] The

study also had shown that about one-third had a psychiatric illness and depression accounted for 50% of this group.[7] Studies have reported that depression among the elderly often goes undetected and thus untreated.[8] Depression among the elderly further results in loneliness, social isolation, cognitive impairment, decline in their ability to carry out the functional activities and thus compromises their quality of life. Determining the burden of depression among the elderly will facilitate formulating policies to plan better health care delivery services for them.[1]

There was lack of data on magnitude of depression in the field practice area of the teaching institution. The study was thereby conducted with the objective of determining the magnitude of depression among the elderly and study the factors associated with it.

METHOD

Institutional ethical approval was taken prior to conducting the study. The study was conducted in the rural field practice area of a teaching institution in South India. The population of this area is 6814 with 1144 households. A cross sectional study was conducted among the elderly residing in the rural field practice area. Elderly are people above 60 years of age. Written informed consent was taken from the study participants before including them in the study. Those who were unable to comprehend and respond were excluded from the study. Taking the prevalence of depression as 46% from a study conducted in South India [9] , and allowable error as 15%, sample size was calculated by using the formula N=4PQ/L*L. Thus the calculated sample size was 230. Taking house hold as the sampling unit, systematic random sampling method was followed to reach the desired sample size. A house to house survey was carried out to collect the data.

The data was collected using a predesigned and pretested questionnaire. The questionnaire comprised of questions to elicit information on socio – demographic profile. Socio – economic status was assessed using Modified B G Prasad's classification [10]. Depression was assessed using Geriatric Depression Scale (GDS-30). The Geriatric Depression Scale (GDS-30) created by Yegavage et al[11] has been tested and used extensively to measure depression among the elderly. It is a brief questionnaire that consists of 30 questions which are answered as yes or no. The GDS-30 GDS yielded a 84% sensitivity rate and a 95% specificity rate [12]. The scale is commonly used as a routine part of a comprehensive geriatric assessment. The scores are rated as 0-9 as "normal", 10-19 as "mildly depressed", and 20-30 as "severely depressed" [11].

The data was analyzed using IBM SPSS 22 version. Descriptive statistics are reported as mean, SD for continuous variables and as frequency, percentage for categorical variables. Chi square test is used to study the association between socio - demographic variables and magnitude of depression. P value of <0.05 was considered as significant.

RESULTS

Majority of the study participants were in the age group of 60 – 70 years with mean age of 66.33 years ± 6.60. More than half of the study participants were females. Almost 72% were illiterate. Majority of them were unemployed and belonged to V class of socio- economic status (Table 1).

Amongst the 230 participants, almost 59.6% were depressed. Amongst the 137 participants who were depressed, 79.5 had mild depression and 20.4% had severe depression (Table 2).

Table 1: Distribution of the study participants as per their socio – demographic profile (N=230)

Socio-demographic Variables	Frequency (%)
Age (Years)	
60-70	192 (83.5)
71-80	28 (12.2)
Above 80	10 (4.3)
Gender	
Male	81 (35.20)
Female	149 (64.80)
Education	
Literate	66 (28.7)
Illiterate	164 (71.3)
Occupation	
Unemployed	124 (53.9)
Unskilled	72 (31.3)
Semiskilled	34 (14.8)
Socioeconomic status (as per modified BG Prasad classification)[10]	
Class I	4 (1.7)
Class II	13 (5.7)
Class III	22 (9.6)
Class IV	59 (25.7)
Class V	132 (57.4)

Depression was found to be more among the females and illiterate participants. Depression was more among those who were unemployed and who belonged to class V socio – economic status.

However on application of Chi square test, there was no statistically significant association of depression with the socio demographic variables (Table 3).

Table 2: Distribution of study group as per grades of depression (N=137)

Grades of depression	Frequency N (%)
Mild	109 (79.56)
Severe	28 (20.44)
Total	137 (100)

Table 3: Association between depression and the socio – demographic variables

Variables	Depression status		P value
	Present (n=137)	Absent (n=93)	
Age			
60-70	117 (85.4)	75 (80.6)	0.623
71-80	15 (10.9)	13 (13.9)	
Above 80	5 (3.6)	5 (5.4)	
Gender			
Male	51 (37.2)	30 (32.2)	0.439
Female	86 (62.7)	63 (67.7)	
Education			
Literate	40 (29.1)	26 (27.9)	0.838
Illiterate	97 (70.8)	67 (72)	
Occupation			
Unemployed	76 (55.4)	48 (51.6)	0.497
Unskilled	39 (28.4)	33 (35.4)	
Semiskilled	22 (16)	12 (12.9)	
Socioeconomic status			
Class I	2 (1.4)	2 (2.1)	0.149
Class II	9 (6.5)	4 (4.3)	
Class III	9 (6.5)	13 (13.9)	
Class IV	31 (22.6)	28 (30.1)	
Class V	86 (62.7)	46 (49.4)	

DISCUSSION

The mean age of the study participants was 66.33 years (SD 6.60). This could be due to the fact that there is a gradual decline in the number of persons surviving with increasing age (life expectancy - 64.6 in India, according to 2002) [13]. A study done by Singh A P [13] reported majority of them to be in the youngest age group. More than half of the study participants were females. Almost 72% were illiterate. Majority of them were unemployed and belonged to V class of socio- economic status. Similar results were observed in a study conducted in a rural area of West Bengal where majority of them were in the age group of 60 – 69 years, females and were illiterate[14]. Also a study done in a rural community of South India reported majority of the participants to be females and had no formal education [15].

In this study 59.6% had depression. Higher depression prevalence of 53% was found among the rural elderly of West Bengal [14]. A study conducted in a rural area of Ahmednagar [16] reported a lower prevalence of depression (32%). The World Health Organization estimated overall prevalence rate of depressive disorders among the elderly varies between depending on the cultural situations [17]. Majority of them had mild depression and thus identifying them at an early stage and appropriate treatment would help to improve their quality of life.

The prevalence of depression in females (62.7%) is more when compared with males. Similar finding was observed in a study conducted by Rao S et al [18] and Singh A P [13] among the elderly population in old age homes and community. This finding could be because of the family burden and responsibilities which would be contributing to increased perception of stress in them [13] . However there was no statistically significant association of gender with depression which was comparable to a study conducted by Jariwala V in Surat [8].

Burden of depression was high among the illiterate people and those belonging to V class of socio – economic status. Similar results were seen in studies conducted in Kerala [19] and Maharashtra [20] . This could be because of understanding of the problems by the literate people and thereby seeking early health care. Also people belonging to low socio – economic status may approach the traditional healers for health care and this may result in poor outcome of the disorder [13, 21]. Majority of the depressed were unemployed in our study. Study conducted by Yadav SP et al [20] and Sandhya GI [19] also reported higher burden of depression among the unemployed and low income. Unemployment is associated with financial dependence and thus predisposes to psychological health problems and depression [20]. Our study did not report any statistically significant association with education and socio economic status. This was similar to study conducted by Yadav S P [20].

CONCLUSION

High magnitude of depression was observed among the elderly in this study. This reflects the need for focusing on greater awareness of depression among community members and to ensure availability and accessibility of appropriate health

care services to manage it. The information obtained through this study about the burden of depression among the various groups will enable to prioritize and plan health care services for early identification of depression and its management.

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