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Original Research Article

Elderly depression: unnoticed public health problem in India- a study on prevalence of depression and its associated factors among people above 60 years in a semi urban area in Chennai

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ABSTRACT

Background: Worldwide proportion of elderly population is expected to double from current 12% to 22% by 2050. This growth in elderly population inevitably leads to increase in age related diseases such as depression and serious constrains on quality of life among them. As depression frequently manifest with somatic symptoms like tension, headache and heaviness, etc., most of the elderly persons visit non psychiatry outpatient services seeking relief for their symptoms.
Methods: A cross sectional study was done in the field practice area of Saveetha Medical College and Hospital. Geriatric depression scale (GDS) short form was used to measure the level of depression in geriatric population. Structured questionnaire was used in order to assess their physical health, socio-demographic data and social support. Elderly mobility scale was used to measure the level of physical dependency. Proportion and chi-square were used for analysis.
Results: Prevalence of depression was found to be 76%. Among depressed elderly 47% had mild depression, 28% had moderate depression and 25% were suffering from severe depression. Severity of depression was also found to be significantly more among those who had lost their life partner and those who were physically dependent on others.
Conclusions: Prevalence of depression in the elderly was found to be high moreover none of the elderly were diagnosed to be depressed. Steps like screening for depression among elderly should be undertaken to diagnose the cases of depression, they should be treated and also be given proper counseling sessions to reduce their levels of depression.

Keywords: Depression, Elderly, Geriatric depression scale short form, Elderly mobility scale, Physical dependency

INTRODUCTION

The World Health Organisation (WHO) defines elderly as the people above 60 years of age.[1] Due to the advancement in the medical facilities there is an increase in the life expectancy which has resulted in increase in the elderly population of the world. According to census 2011 the elderly population in India is 104 million which is 8.6% of the total population, in Tamil Nadu the elderly population is 10.9%.[2] Worldwide proportion of elderly population is expected to double from current 12% to 22% by 2050. The number of elderly population in India is expected to be 179 million by 2031 and 301 million by 2051.[3] The Indian elderly population is currently the second largest in the world.[1]

This growth in elderly population inevitably leads to increase in age related diseases such as depression and

serious constrains on quality of life among elderly individuals.[4] The elderly in India face a multitude of psychological, social and physical problems.[5] According to the World Health Organization the overall prevalence of unipolar depression disorders in elderly population is between 7%.[1]

The factors causing depression in these population are pain, chronic disease and disability, frustration with the limitations in activities of daily living, lack of adequate social support, adverse life events (bereavement, poverty, separation, divorce, social isolation), personality traits (anxious or avoidant, dependent).[6]

The depression in elderly is evitable and can be prevented by addressing the risk factors leading to depression.[7] As depression frequently manifest with somatic symptoms like tension, headache and heaviness, etc., most of the elderly persons visit non psychiatry outpatient services seeking relief for their symptoms.[8] Hence, there is an urgent need for greater awareness of geriatric depression, both among community members as well as the health personnel to prevent misdiagnosis of the condition.. Therefore this study was planned in field practice area of Saveetha Medical College and hospital to find out the prevalence of depression and its associated factors in the elderly.

METHODS

A cross-sectional study was planned in the field practice area of Saveetha Medical College and Hospital in people aged 60 years and above.

Study period

June 2016- August 2016.

Total study participants

100, sample size was calculated using proportion of 7%, alpha error of 95% and absolute error of 5%.

Sampling method

Multistage sampling technique was used. Thirumazhisai, field practice area of Saveetha Medical College covers a population of 19,000. Area is divided into 15 wards. By simple random sampling technique 5 wards were chosen. Investigator went to the center of each chosen ward and chose the direction by spinning the pen. In each ward 20 elderly were interviewed by going door to door and lane to sublane.

Inclusion criteria

People above 60 years of age, those who gave consent and without any evident psychiatric illness were included in the study.

Exclusion criteria

People who did not give consent, people below 60 years of age and people suffering from psychiatric illness were not included in the study.

Tool used

Geriatric depression scale (GDS) short form was used to measure the level of depression in geriatric population.[9] It is a pre-prepared, pre-validated scale for assessing depression in elderly people. Structured Questionnaire was used in order to assess their physical health, socio-demographic data and social support. Elderly mobility scale was used to measure the level of physical dependency.[10]

Translation of the tool

The tool was translated from English to Tamil and back to English by language experts. The validity of the translated tool was established by two other experts by using verbatim.

Proportion and chi-square were used for analysis.

RESULTS

In the present study 100 elderly people aged above 60 yrs were assessed for depression.

Among them 52 were females and 48 were males. Majority of the elderly (78%) were between the age group of 60-70 yrs and rest 22% were above 70 years.

Prevalence of depression

According to the GDS the overall prevalence of depression was found to be 76%. Among depressed elderly 47% had mild depression, 28% had moderate depression and 25% were suffering from severe depression (Figure 1).

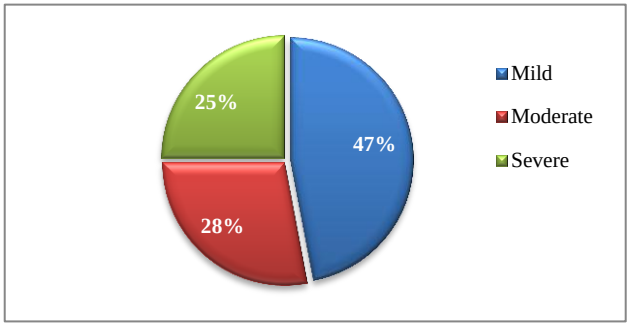

Figure 1: Distribution of depressed elderly according to severity of depression.

In the present study elderly more than 70 yrs were found to have more depression, 86% of the population above 70

years was depressed. Severity of depression was also found to be more in elderly above 70 yrs accounting to 36% of severely depressed cases. This difference was found to be statistically significant (Table 1).

Table 1: Association of depression with age group of elderly.

Age group	Depression				
	Normal (%)	Mild depression (%)	Moderate depression (%)	Severe depression (%)	Total
60-70 yrs	21 (27)	32 (41)	14 (18)	11 (14)	78
>70 yrs	3 (14)	4 (18)	7 (32)	8 (36)	22
Total	24	36	21	19	100

X^2=9.7972; p=0.020371.

Table 2: Association of depression with the sex of the elderly.

Sex	Depression				
	Normal (%)	Mild depression (%)	Moderate depression (%)	Severe depression (%)	Total
Males	9 (18)	13 (27)	15 (31)	11 (23)	48
Females	15 (29)	23 (44)	6 (12)	8 (15)	52
Total	24	36	21	19	100

X^2=8.4621; p=0.037366.

Table 3: Association of depression with marital status.

Spouse	Depression				
	Normal (%)	Mild depression (%)	Moderate depression (%)	Severe depression (%)	Total
Spouse alive	20 (27%)	32 (43%)	16 (21%)	7 (9%)	75
Spouse dead	4 (16%)	4 (16%)	5 (20%)	12 (48%)	25
Total	24	36	21	19	100

X^2 =19.3629. p=.00023.

Table 4: Association of depression among elderly with type of family.

Type of family	Depression				
	Normal (%)	Mild depression (%)	Moderate depression (%)	Severe depression (%)	Total
Nuclear	14 (30)	16 (35)	8 (17)	8 (17)	46
Joint	10 (19)	20 (37)	13 (24)	11 (20)	54
Total	24	36	21	19	100

X^2=2.149. p=0.542058.

Table 5: Association of depression with occupational status.

Occupational status	Depression				
	Normal (%)	Mild depression (%)	Moderate depression (%)	Severe depression (%)	Total
Employed	6 (33)	6 (33)	5 (28)	1 (6)	18
Unemployed	18 (22)	30 (36)	16 (20)	18 (22)	82
Total	24	36	21	19	100

X^2=3.4086; p=0.332813.

Elderly male were found to be more depressed 81% (39) than the females. Also the severity of depression was more among the males. 23% of the elderly males were severely depressed but only 15% of the elderly females were severely depressed. The result was found to be statistically significant (Table 2).

In the present study 75% elderly had a living spouse. Depression was found to be more among the elderly whose spouse was dead. Severity of depression was also high among them. The difference was found to be statistically significant (Table 3).

54% of the elderly in the present study were living in a joint family. Depression was found to be more among elderly living in joint families but the difference was not found to be statistically significant (Table 4).

In the present study majority (82%) of the elderly were found to be unemployed and the level of depression was

also more among them but the difference was not found to be statistically significant (Table 5).

Table 6: Association of depression with socioeconomic status according to modified Kuppuswamy scale[11].

Socioeconomic status	Depression				
	Normal (%)	Mild depression (%)	Moderate depression (%)	Severe depression (%)	Total
Upper class and upper middle class	3 (16)	7 (37)	5 (26)	4 (21)	19
Lower middle class	19 (31)	22 (35)	12 (19)	9 (15)	62
Upper lower class	2 (11)	7 (36)	4 (21)	6 (32)	19
Total	24	36	21	19	100

$X^{2=}$5.7398.p =0.452961.

Table 7: Distribution of elderly according to presence of chronic disease.

Disease	Total
Diabetes	47
Hypertension	31
Cardiovascular disease	5
Arthritis	40
Cataract	10
Refractive errors	43
Difficulty in hearing	15
Difficulty in breathing	16
Other diseases	6
Base	213

Table 8: Distribution and association of elderly depression with physical dependency.

Dependency level	Depression				
	Normal (%)	Mild depression (%)	Moderate depression (%)	Severe depression (%)	Total
Independent	23(26)	35 (40)	17 (20)	12 (14)	87
Borderline	1 (13)	0	3 (38)	4 (20)	8
Dependent	0	1 (20)	1 (20)	3 (60)	5
Total	24	36	21	19	100

X^2=16.3633; p=0.011931.

Majority of the elderly (62%) belonged to lower middle class socio-economic status according to modified Kuppuswamy classification and depression was found to be lower in this group as compared with elderly living in lower class, upper middle and upper class. However the difference was not found to be statistically significant (Table 6).

Majority of the elderly were suffering from one or more chronic disease. Among them majority had diabetes (47%) followed by refractory errors (43%), arthritis (40%) (Table7).

In the present study 5% of the elderly were found to be dependent and 8% had borderline dependency according to Elderly Mobility Scale. Prevalence and severity of the depression was found to be more among dependent and borderline dependent elderly as compared to the independent elderly. This difference was found to be statistically significant (Table 8).

DISCUSSION

In the present study 76% of the elderly were found to have depression. Various community based studies across the country has reported depression from as low as 32.4% to 77%.[12-16] This may be due to differences in the socio-demographic variables of the people residing in the different areas and also due to the different scales used in the measurement of depression.

19% of the elderly were found to have severe depression, similar high proportion of severe depression was also reported by Goyal et al in their study on depression in elderly in south Punjab.[17]

Majority of the elderly belonged to the upper lower class, unemployed, suffering from chronic diseases and were single (spouse was dead). Severity of depression was also found to be more among them however significant association was found with loss of partner and those who

were physically dependent on others. Several studies also found that the prevalence of depression was significantly high among the elderly who lived alone.[5,18,19]

In the present study depression severity was found to be more in males this may be due to the fact that females normally get involved with house hold chores but males if not working for livelihood find it difficult to have good quality time pass.

CONCLUSION

From this study it is evident that the prevalence of depression in the community is high moreover none of the elderly were diagnosed to be depressed. Hence depression in elderly should be taken as a serious issue. Steps like screening for depression among elderly should be undertaken to diagnose the cases of depression, they should be treated and also be given proper counseling sessions to reduce their levels of depression. There is a necessity for bringing up a programme to diagnose, control and treat depression in elderly population.

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