2017

www.jmscr.igmpublication.org Impact Factor 5.84 Index Copernicus Value: 83.27 ISSN (e)-2347-176x ISSN (p) 2455-0450 crossref DOI: _https://dx.doi.org/10.18535/jmscr/v5i6.104



Journal Of Medical Science And Clinical Research An Official Publication Of IGM Publication

Screening for Depression in Old Age Home and Home Environment Using Geriatric Depression Scale Zung Self-Rating Depression Scale Modified Kuppuswamy's Socio-Economic Status Scale : An Observational Study

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Abstract

Background: Depression in elderly is associated with emotional suffering, increases in health expenditures, morbidity and higher risk of suicide, fall and mortality from other causes. Depressive illness is one of the two most common psychiatric disorders of old age, yet little is known about its prevalence, incidence or natural history.

Objective: To identify the level of depression in the old age home and home environment among geriatrics population based on their gender and socioeconomic status.

Methods: A total of 200 individual elderly person above 65 years of age and subjects willing to participate were included and there depression level was assessed based on their gender, age classification, and socioeconomic status using Geriatric Depression Scale (GDS), Zung Self-Rating Depression Scale(ZSRD) and modified kuppuswamy's socio-economic status scale.

Results: The study results showed that the GDS score and ZSRD score more in old old age group(p=0.001), low socio economic class(p=0.001) and over all comparison showed that GDS and ZSRD score was more in individual residing at old age home group compared to home environment.

Conclusion: the depression was more in individual in old age home and was more see in old old age group and in low socio economic class.

Keywords: Elderly, Depression, Old Age Home, Home Environment.

Introduction

Depression is a state of low mood and aversion to activity that can affect a person's thoughts, behavior, feelings and sense of well-being. People with depressed mood can feel sad, anxious, empty, hopeless, helpless, worthless, guilty, irritable, ashamed, un-motivated anti social, lack care about themselves, or restless.^{1,2} They may lose interest in activities that were once pleasurable, experience loss of appetite or overeating, have problem in concentration, remembering details, attempt or commit suicide. Insomnia, excessive sleeping, fatigue, aches, pains, digestive problems or reduced energy may also be present.³ Ageing is an inevitable developmental phenomenon bringing along a number of changes in the physical, psychological, hormonal and the social conditions⁴.

Depressive illness is one of the two most common psychiatric disorders of old age, yet little is known about its prevalence, incidence or natural history ⁵. Depression in geriatric population is associated

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with emotional suffering, increases in health expenditures, morbidity, higher risk of suicide, and mortality from other causes. Screening patients for depression can help identify older adults in need of interventions and lead to improvements in their well-being and overall clinical status. Brief screens can be administered at minimal personnel cost and may lead to a decrease in overall health care costs ⁶. A number of barriers for depression recognition exist in the older adult population, including the misperception that depression occurs inevitably as a result of aging or medical illness, and as such is not treatable. Cognitive symptoms may be more prominent and can complicate depression detection. Screening activities do require training and practice, as detection of depression symptoms is often complicated by coexisting medical illness, pain, cognitive impairment, anxiety, and disability in the older adult population⁷.

In the home care setting, depression often remains unrecognized even when older adults receive home care services for other health care problems and are screened for depression. Without treatment depression in old age becomes a chronic disorder that produces high level of morbidity and mortality. Two third of those diagnosed with depression were either dead or psychiatrically ill after 3 years⁸.

Methods and methodology

The primary data was collected form elderly residing at Old age homes and Homes around Belagavi. Elderly person above 65 years of age and subjects willing to participate were included in the study Subject with neurological impairment debilitated person who can't take active and satisfactory part in the study and Subjects on antidepressive drugs were excluded from the study. Total of 200 subjects mate the criteria. An approval for the study was obtained from the institutional ethical committee. The subjected were recruited from old age homes and homes around Belagavi. The study protocol was first explain to each participant who was then provided with written informed consent. A brief history was taken about the subject's present medical condition, educational profile and socioeconomic status using Kuppuswamy's socioeconomic status scale. The age, height, weight were measured and BMI of every subjects was taken. to screen depression two scales were used The Geriatric Depression Scale (GDS) and Zung Self-Rating Depression Scale (ZSDS) GDS has total 30 questions which was explained to the subjects and was scored by the therapist and ZSRDS is a self-rating scale which was provided to the subject in their local language and subjects was told to tick appropriate alternatives. GDS interpretation was as followed 0 - 9 Normal 10 -19 Mild Depressive 20 - 30 Severe Depressive and for ZSDS score of 50 to 69 was sad to be depressed and score above 80 was coincided as savior depression.

Results

After screening data was analyzed by SPSS computer software version 20. Data were checked for normality and homogeneity of variance before analyses. To verify the results obtained the data was entered into an excel spreadsheet, tabulated and subjected to statistical analysis. Various statistical measures such as mean, standard deviation, and test of significance such as ANOVA, t- test were used with significance set at P < 0.05, when depression was compared among gender distribution it was seen that in home environment group it was seen that GDS and ZSDS score was more in female compared to male (p=0.001 and p=0.002) similarly for old age home group also the depression level was more in females compared to male (p=0.0001 and p=0.0001). Between the group comparison showed that depression level was more in both male and female compared to old age home compared to individual residing at home environment. (table1).

When depression was compared among different age group classification in home environment group it was seen that very mild depression was

seen young old group and depression was more in old old age group(p=0.0001), similar findings was seen in individual with old age home group. Between the group comparison showed that depression level was more in all age group in old age home compared to individual residing at their homes (table 2). Depression was compared based on socio-economic status. Using kupuswami scale of socio economic status they were classified as upper, upper middle, lower middle and lower class. In home environment group it was seen that depression level was more in lower middle and lower class group. Similarly in individual at old age home it was seen that depression level was more in lower middle and lower class. Between the group comparison showed that there was no much difference in depression level in lower middle and lower class in both the groups suggesting that depression level was more in lower socioeconomic group.(table 3).

Table 1: Comparison of male and females with respect to Geriatric depression and Zung self rating depression scale scores in total, Home environment and Old age home groups by t test

Samples	Sex	Geriatric depression	Zung self rating depression
		Mean±SD	Mean±SD
Total samples	Male	9.57±4.41	47.18±11.60
	Female	13.62±5.38	58.38±12.6
	Total	11.78±5.35	53.28±13.08
	t-value	-5.7463	-6.6542
	P-value	0.0001*	0.0001*
Home environment	Male	8.57±4.23	45.28±11.50
	Female	12.30±5.27	55.70±11.97
	Total	10.58±5.14	50.91±12.81
	t-value	-3.8616	-4.4186
	P-value	0.0001*	0.0002*
Old age home	Male	10.60±4.41	49.11±11.51
	Female	14.93±5.22	61.00±11.67
	Total	12.98±5.31	55.65±12.98
	t-value	-4.4165	-5.0997
	P-value	0.0001*	0.0001*

*p<0.05

Table 2: Comparison of age groups with respect to Geriatric depression and Zung self rating depression

 scale scores in total, Home environment and Old age home groups by one way ANOVA

Samples	Age groups	Geriatric depression	Zung self rating depression
		Mean±SD	Mean±SD
Total samples	Young age	10.06±4.39	49.30±11.59
	Middle age	12.05±5.09	53.57±13.18
	Old age	16.03±5.74	63.59±11.13
	Total	11.78±5.35	53.28±13.08
	F-value	21.4462	20.3014
	P-value	0.0001*	0.0001*
Home environment	Young age	8.89±4.33	47.25±11.28
	Middle age	11.62±5.32	51.17±12.82
	Old age	13.89±5.27	61.28±11.82
	Total	10.58±5.14	50.91±12.81
	F-value	8.2447	9.4527
	P-value	0.0005*	0.0002*
Old age home	Young age	11.25±4.16	51.38±11.64
	Middle age	12.52 ± 4.88	56.15±13.30
	Old age	17.86±5.61	65.57±10.37
	Total	12.98±5.31	55.65±12.98
	F-value	15.0411	10.7215
	P-value	0.0001*	0.0001*

*p<0.05

Samples	SES groups	Geriatric depression	Zung self rating depression
		Mean±SD	Mean±SD
Total samples	Upper	8.73±2.98	44.47±9.70
	Upper middle	8.81±2.91	47.11±9.49
	Lower middle	13.77±4.99	58.32±11.50
	Lower class	16.79±5.62	65.55±9.89
	Total	11.78±5.35	53.28±13.08
	F-value	41.5036	43.8946
	P-value	0.0001*	0.0001*
Home environment	Upper	8.44±3.44	43.94±10.86
	Upper middle	8.40±2.71	47.23±9.94
	Lower middle	14.00±4.73	59.91±9.24
	Lower class	17.20±7.38	65.40±12.26
	Total	10.58±5.14	50.91±12.81
	F-value	20.4368	18.7232
	P-value	0.0001*	0.0001*
Old aga homa	Unpor	0.21+1.00	<i>15</i> 27±7 52
	Upper Upper middle	0.58+3.10	45.37±7.33
	L over middle	13 60+5 26	57 10+13 0
	Lower class	16 66+5 00	65 59+9 26
	Total	12.98±5.31	55.65±12.98
	F-value	16.0800	21.4392
	P-value	0.0001*	0.0001*
* 0 05			

Table 3 Comparison of Socio Economic status groups with respect to Geriatric depression scale scores in total, Home environment and Old age home groups by one way ANOVA

*p<0.05

Discussion

The present study was conducted to see the level of depression among old age home and home environment based on increasing age and socio economic status. The age group was classified into young old, middle old and old old and socio economic class was divided into lower class middle class upper middle class and upper class. The level of depression was checked using two scales, GDS and ZSRD.

This study showed that depression was more as age progresses the GDS and ZSRD scores increased as the age progressed. In the study individual who were categorized in age group of old old had high depression score as compared to other two groups the previous studies have also shown the similar results¹⁰ the possible reason for this can be with increase in age individuals are more prone to many conditions which leading to decrease in morbidity difficulty in waking balance problem low self esteem and hearing loss all this factor will contribute to loss of function and limits

mobility which can cause depression in old old group⁹. With progressing age there is numerous functional changes is seen in vision, hear communication which will limit social interaction which can lead to social isolation and depression¹¹.

In this study it was seen that depression was more in individual residing at old age home compared to home environment. The possible cause can be due to away from the family or neglected by the family members¹². And due to isolation, previous studies have given a reason for depression in old age home was as age progress the individual like to be in his home and environment with the family members this can be the possible reason for depression in old age home¹³.

Very small number of depression was seen in individual residing at their home. But when depression was compared among old old age group it was seen that both the group of individual had almost same value¹⁴. Previous studies have shown that depression level is same in old age home and home environment as in home most of

the time depression in not diagnosed specially individuals who are staying alone in their residency or in individual who have lost their partner of any family members the individual tend to go into depression which is mostly undiagnosed. Previous studies also suggest that social isolation is more in more in individual who are residing at home environment compared to old age home.^{15,18}

Previous studies also suggest that in the home care setting, depression often remains unrecognized even when older adults receive home care services for other health care problems hence screening for depression in individual residing at home is important aspect. Without treatment depression in old age becomes a chronic disorder that produces high level of morbidity and mortality. Two third of those diagnosed with depression were either dead or psychiatrically ill after 3 years.

In the present study it was seen that female subjects had more GDS and ZSDS compared to male subjects the possible reason for this could be Women were likely to have disadvantaged social status like unmarried status and lower education, more health problems more numbers of chronic conditions, and a lack of personal resources (lower levels of sense of control and acculturation)¹⁶.

In the present study it was seen that individual low socioeconomic status with based on kuppuswami scale was seen to be have higher GDS and ZSDS value the previous also support the present finding the previous studies have related socioeconomic status to the individual education level and suggested that low education level is a main cause of depression in old age¹⁷. A number of barriers for depression recognition exist in the older adult population, including the misperception that depression occurs inevitably as a result of aging or medical illness, and as such is not treatable. Cognitive symptoms may be more prominent and can complicate depression detection. Screening activities do require training and practice, as detection of depression symptoms is often complicated by coexisting medical illness, pain, cognitive impairment, anxiety, and disability in the older adult population¹⁸

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