Original Article

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Assessment of Prevalence of Depression among Elderly Living with their Families and Living in Old Age Home

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Abstract

Introduction: Depression has been identified as a silent killer of modern era. Apart from being a pathological mood disturbance characterized by feelings, attitudes and beliefs the person has about oneself and his environment such as pessimism, hopelessness, helplessness, low self esteem and a guilt feeling, depression is the most common disturbance of mood experienced by the elderly. A significant number of the elderly today are likely to have physical and mental morbidity besides having psychosocial problems. Among the various mental disorders of old age, depression is the commonest problem observed in the community. *Objectives*: The study aimed to investigate the prevalence of depression among elderly living with their families and living in old age home in selected areas of Delhi. *Methods:* A descriptive survey was conducted on hundred elderly (50 elderly living with their families and 50 living in old age home) aged 60 years and above purposely selected from residential areas of Delhi. A standardized tool was used for data collection and the data were analyzed using descriptive and inferential statistics. *Results*: Results revealed that the elderly living with their families were more prone to depression as compared to elderly living in old age home. Further, education status had a significant relationship with the prevalence of depression among elderly living with families. Conclusion: Results confirmed that the prevalence of depression was more among elderly living with their families. However, in India such studies are limited and need further exploration.

Keywords: Elderly; Depression; Old Age Home; Prevalence.

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Introduction

Ageing is a progressive development in the life span and is a marker of life's journey towards growth and maturity [1]. It encompasses a series of processes that begin with life and continues throughout the life cycle of an individual. As stated by WHO, the term 'Old age' defines not only an individual's appearance, but also refers to the loss of power, role and position. Loss of full possession of facilities and the proneness to physical diseases causes an individual to become more dependent on others, a fact that requires consideration in order to determine the well being and satisfaction of the elderly [2].

The Government of India adopted 'National Policy on Older Persons' in January, 1999, that defines 'senior citizen' or 'elderly' as a person who is of age 60 years or above [3]. As people age, they are more likely to have mobility difficulties and chronic conditions such as cancer, stroke and dementia. They are also vulnerable to depression, as many face loneliness and poverty. Mental illness, low morale, poor rehabilitation and admission to residential care have all been found to be correlated with either social isolation or loneliness or both [4]. The elderly often have multiple co-existing medical and psychological problems. Cardiovascular diseases, respiratory disorders, hearing and visual impairments, depression, and infections such as tuberculosis are common problems in elderly populations [5].

In the present scenario, depression is considered as an important public health challenge, especially in developing countries, however, this problem is not new. The World Health Organization (WHO) in 1990, described depression as a major, worldwide cause of disability. However, depression is under treated in this age group, and perhaps particularly so because it

is not yet perceived as a priority public health problem in developing countries. Depression, along with other mental health disorders, has long been segregated and neglected. Mental and behavioral disorders are estimated to account for 12% of the global burden of disease which affects approximately 450 million people [6]. However, most countries allocate less than 1% of their total health expenditures to mental health budgets.

It is estimated that depression affects approximately 350 million people worldwide; constituting a major portion of mental health disorders. According to the World Mental Health Survey, approximately 6% people aged 18 years and above have had an episode of depression in the previous year. Lifetime prevalence rates of depression range from 8 to 12% in most countries [7]. According to the WHO Global Burden of Disease report 2004, depression was the leading cause of burden of disease during 2000-2002, ranked as third worldwide. It is projected to reach second place of the DALYs (disability adjusted life years) ranking worldwide by the year 2020 and first place by 2030. According to a WHO report, patients aged over 55 years with depression have a four times higher death rate than those without depression, mostly due to heart disease or stroke. The contribution of depressive disorders to suicide are widely recognised[8].The Chennai Urban Rural Epidemiology Study (CURES) showed the prevalence of depression among population over 20 years as 15.1%. Studies in primary care settings point to a higher prevalence of depressive disorders amongst the elderly (with chronic co-morbid diseases), ranging from 10 to 25%. A meta-analysis of 74 studies, including 487,275 elderly individuals found the worldwide prevalence rate of depressive disorders to be between 4.7 to 16%. This study indicates a comparatively higher prevalence of geriatric depression in India (21.9%) [9].

Depression decreases an individual's quality of life and increases dependence on others. People with depression suffer from impairment of all major areas of functioning, for instance, personal care, family responsibilities, and social-occupational capabilities. Elderly people tend to be less healthy physically, and are more socially withdrawn. They are less satisfied with the manner in which they handle their problems and social life [10]. People with depression suffer overly from various medical disorders and die prematurely. Geriatric populations with depression are at a higher risk for chronic diseases like coronary heart disease (CHD), cancer, diabetes mellitus and hypertension. These people use medical services more often, thus raising the cost of medical services to the community at large [3].

WHO set "depression" as the theme for the World Mental Health Day held on 10 October 2012 in order to address the rising magnitude and deal with problems associated with it. It was intended to create awareness in the public that depression can affect anyone and that it is a treatable condition. People should be alert to the early signs of depressive disorders as it impacts not only the individuals but also their families and peers.

The researcher came across some elderly, who were living with their families which did not provide them with basic facilities to meet their physical, psychological, social and emotional needs. They were abused and were not loved, revered and taken care of despite living with the family, these elderly were seemingly very vulnerable to depression and other emotional problems. On the other hand, the elderly who were institutionalized were also found to be dealing with the feelings of abandonment inspite of being with a large group of people of similar age, needs, issues and concerns. In some places they were not provided with basic facilities to meet their physical, psychological, social and spiritual needs and also the need for love and care. Interestingly, some old age homes and elderly community and residential facilities are so good that they fill the void of a family that is uncaring and abusive. So, while living at home has its own merits and demerits, living in old age homes also has its plus and minus points. This intrigued the mind of the researcher to investigate whether elderly living in homes or old age homes are more vulnerable to depression and other emotional problems.

Methodology

The research approach of this study was quantitative with a descriptive comparative design to assess the prevalence of depression among elderly living with their families and living in old age home. 100 elderly; out of which 50 elderly living in Rohini, Sector-5 with their families and 50 living in old age homes namely Sandhya senior citizen home and Aradhana old age home were selected by convenient sampling technique. The tool consisted of three sections. Section-1 consisted of questions related to demographic profile and Section-2 was a standardized tool i.e., Geriatric Depression Scale (GDS) which consisted of 30 items to assess the depression. The scale was found to have 92% sensitivity and 89% specificity when evaluated against diagnostic criteria. The validity of the tool has been supported through both the clinical practice and research. In a validation

study comparing the long and short forms of the GDS for self-rating of symptoms of depression, both were successful in differentiating depressed from non-depressed adults with a high correlation (r =0.84, p<0.001) (Sheikh and Yesavage, 1986) [11] and reliability of the tool was established by administration of the tool to a sample of 10 elderly who were living with families and living in old age home in selected areas of Delhi. Reliability was worked out by using Cronbach's alpha and was found to be 0.84. Thus the tool was established to be reliable for the study. Section-3 consisted of rating scale to assess the prevalence of depression. For the collection of data, a formal administrative approval was sought from the Palika Parishad Samaj Kalyan Samiti, New Delhi for including elderly for research purpose from both old age homes. Ethical clearance to conduct the study was taken from the Institutional Ethical Committee. The purpose of the study was explained to the respondents and their consent for participation in the study was taken. The data taken were subjected to be analyzed using descriptive and inferential statistics.

Results

Findings Related to the Demographic Profile

The frequency and percentage computation of the study subjects showed that 27(54%) elderly living with families and 4(8%) elderly living in old age home were within the age group of 60-64 years, 14(28%) elderly living with families and 21(42%) elderly living in old age home were within the age group of 65-69 years, 7(14%) elderly living with families and 15(30%) elderly living in old age home were within the age group of 70-74 years and 2(4%) elderly living with families and 10(20%) elderly living in old age home were within the age group of 75years and above age group. Out of 100 elderly, 25(50%) men and 25(50%) women living with families and 25(50%) men and 25(50%) women were living in old age home. The marital status of the elderly revealed that 34(68%) elderly living with families and 6(12%) elderly living in old age home were married, and 2(4%) elderly living in old age home were unmarried, 9(18%) elderly living in old age home were divorced whereas 16(32%) elderly living with families and 33(66%) elderly living in old age home were widow/widower. The educational status of the elderly revealed that 1(2%) elderly living in old age home had primary education, 27(54%) elderly living with families and 9(18%) elderly living in old age home secondary education, 23(46%) elderly living with families and 40(80%) elderly living in old age home were graduates. Thus most of the elderly living with families had secondary education and elderly who were living in old age home were graduates. The working status of the elderly revealed that 4(8%)

Table 1: Demographic profile of the elderly by their age, gender, marital status, education, occupation and economic status

$*n_{1+}n_2=100$

S. No	Sample Characteristics	Elderly living with their families (n_1), %age	Elderly living in old age home (n_2), %age
1.	**Age (in years)**		
	a. 60-64years	27(54%)	4(8%)
	b. 65-69years	14(28%)	21(42%)
	c. 70-74years	7(14%)	15(30%)
	d. 75 years and above	2(4%)	10(20%)
2.	**Gender**		
	a. Male	25(50%)	25(50%)
	b. Female	25(50%)	25(50%)
3.	**Marital Status**		
	a. Married	34(68%)	6(12%)
	b. Unmarried	0	2(4%)
	c. Divorce	0	9(18%)
	d. Widow/ Widower	16(32%)	33(66%)
4.	**Education**		
	a. Primary	0	1(2%)
	b. Secondary	27(54%)	9(18%)
	c. Graduate	23(46%)	40(80%)
5.	**Working Status**		
	a. Working	4(8%)	0
	b. Not Working	46(92%)	50(100%)
6.	**Economic Status**		
	a. Dependent	42(84%)	0
	b. Independent	8(16%)	50(100%)

* $n_{1=}$ Elderly living with their families
$n_{2=}$ Elderly living in old age home

Table 2: Findings related to prevalence of depression faced by elderly living in families' old age home $*n_1+n_2=100$

Numbers of Group (Frequency of subjects)	Range of scores	Range of obtained scores	Mean	S.D	Std. Error	Mean Difference	Unpaired t-test	p-value
Elderly living with their families (Group 1) (n_1=50)	0-30	1-26	11.36	6.91	0.977	2.880	2.420;	0.001**
Elderly living in old age home (Group 2) (n_2=50)	0-30	2-19	8.48	4.79	0.678			

**t (98) = 1.98, Significant at 0.01 level of significance, $p<0.01$
* $n_{1=}$ Elderly living with their families
$n_{2=}$ Elderly living in old age home

samples were working and 46(92%) samples were not working in elderly who were living with families and 50(100) samples were not working in elderly who were living in old age home. 42(84%) were economically dependent and 8(16) were economically independent in elderly who were living with families and 50(100) were independent from elderly who were living in old age home.

The obtained mean and standard deviation for the study subjects were 11.36 and 6.91 for Group 1, while for Group 2 findings were 8.48 and 4.79 respectively. By applying unpaired t – test to find the significance of difference between the two means, t – value was calculated as 2.420 at 98 degrees of freedom. This indicates that depression was more prevalent among the elderly living with their families as compared to elderly living in old age home.

23(46%) of elderly living with families and 36(72%) of elderly living in old age home were normal, 21(42%) of elderly living with families and 14(28%) of elderly living in old age home had mild depression and 6(12%) of elderly living with families and none of the elderly living in old age home had severe depression.

Table 3: Relationship between the levels of depression among the elderly living with families and demographic variables (age, gender, marital status, education, working status, economic status $*n_1$ =50

S. no	Variables		Elderly Living With Families			Test	p-value
			Normal	Mild Depression	Severe Depression		
1.	**Age (in years)**						
	a.	60-64years	12(52.2%)	13(61.9%)	2(33.3%)	FISHER	
	b.	65-69years	9(39.1%)	3(14.3%)	2(33.3%)	EXACT	0.204
	c.	70-74years	2(8.7%)	3(14.3%)	2(33.3%)	TEST	
	d.	75 years and above	0	2(9.5%)	0		
2.	**Gender**					Fisher Exact	
	a.	Male	13(56.5%)	10(47.6%)	2(33.3%)	Test	0.893
	b.	Female	10(43.5%)	11(52.4%)	4(66.7%)		
3.	**Marital Status**						
	a.	Married	19(82.6%)	11(52.4%)	4(66.7%)	FISHER	
	b.	Unmarried	0	0	0	EXACT	0.100
	c.	Divorce	0	0	0	TEST	
	d.	Widow/ Widower	4(17.4%)	10(47.6%)	2(33.3%)		
4.	**Education**						
	a.	Primary	0	0	0	FISHER	
	b.	Secondary	5(21.7%)	18(85.7%)	4(66.7%)	EXACT	0.001**
	c.	Graduate	18(78.3%)	3(14.3%)	2(33.3%)	TEST	
5.	**Working Status**					Fisher Exact	
	a.	Working	3(13%)	1(4.8%)	0	Test	0.446
	b.	Not Working	20(87%)	20(95.2%)	6(100%)		
6.	**Economic Status**					Fisher Exact	
	a.	Dependent	18(78.3%)	19(90.5%)	5(83.3%)	Test	0.543
	b.	Independent	5(21.7%)	2(9.5%)	1(16.7%)		

** $p<0.01$, significant at 0.01 level of significance.
* $n_{1=}$ Elderly living with their families

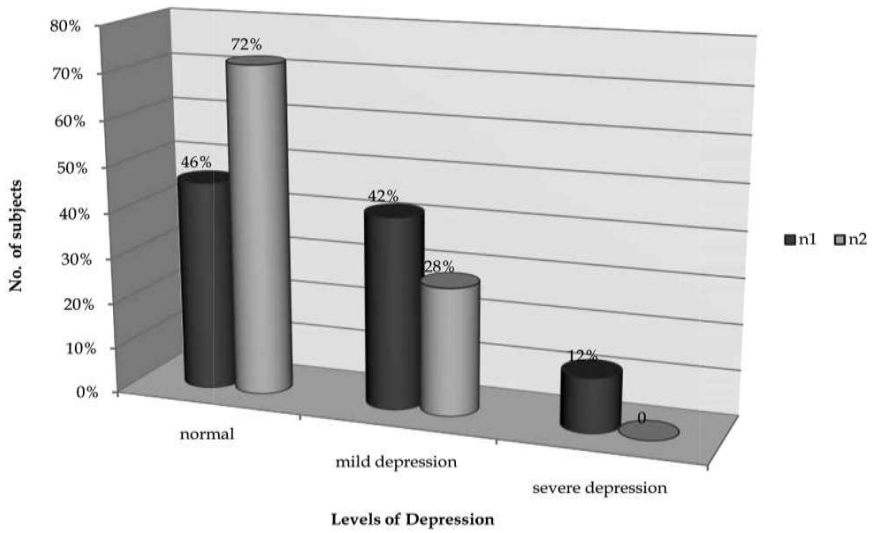

Fig. 1: Findings related to the frequency and percentage distribution of the elderly living with their families and living in old age home by the severity level of depression faced by them

Table 4: Relationship between the levels of depression among the elderly living in old age home and demographic variables (age, gender, marital status, education, working status, economic status * n_2=50

S. no	Variables		Elderly Living in Old Age Home		Test	*p*-value
			Normal	Mild Depression		
1.	**Age (in years)**					
	a.	60-64years	4(11.4%)	0	Fisher Exact Test	
	b.	65-69years	15(42.9%)	6(40%)		0.570
	c.	70-74years	9(25.7%)	6(40%)		
	d.	75 years and above	7(20%)	3(20%)		
2.	**Gender**				Chi-Square Test=	
	a.	Male	17(48.6%)	8(53.3%)	0.095;	0.953
	b.	Female	18(51.4%)	7(46.7%)	DF= 1	
3.	**Marital Status**					
	a.	Married	3(8.6%)	3(20%)	Fisher Exact Test	
	b.	Unmarried	2(5.7%)	0		0.539
	c.	Divorce	6(17.1%)	3(20%)		
	d.	Widow/Widower	24(68.6%)	9(60%)		
4.	**Education**					
	a.	Primary	0	1(6.7%)	Fisher Exact Test	
	b.	Secondary	6(17.1%)	3(20%)		0.287
	c.	Graduate	29(82.9%)	11(73.3%)		
5.	**Working Status**					
	•	Working	0	0	Fisher Exact Test	1.000
	•	Not Working	35(70%)	15(30%)		
6.	**Economic Status**				Fisher Exact Test	
	•	Dependent	0	0		1.000
	•	Independent	35(70%)	15(30%)		

Findings related to the relationship between the level of depression among the elderly residing with families and at old age home with selected variables.

Fishers exact test and chi-square test were used, the *p*-value was calculated and found that there was only significant relationship between the education status and levels of depression faced by elderly living with families and no significant relationship between the demographic variables and levels of depression faced by elderly living in old age home.

Discussion

In present study results revealed that, 42% of the elderly living with their families had mild depression and 12% had severe depression. These results were in line with the study findings by Maulik [12], according to which 53% of the elderly in community dwelling in West Bengal suffered from depression. Also the study by Kim et al [13] found that 63% of the elderly at the elderly welfare centre and public health centers in

Korea had depression.

The findings of the present study revealed that 28% of the elderly living in old age homes had mild depression. These findings were not in agreement with the study by Wijeratne et al [14], which found that 56% of institutionalized elders in Colombo had depression.

Using the key score and leveling the margins for mild and severe depression, the study showed that among the geriatric population, 41% had mild or severe depression. Out of these 70% suffered from mild and 12% from severe depression. These results were consistent with the study by Khatri J.B. [15] in which it was found that depression among geriatric population in Nepal was 53.2% as measured by Geriatric Depression Scale.

In present study there is a significant association between the education and levels of depression among elderly living with families. Another study by Khatri J.B. [15] also showed that depression has significant correlation with sex and education whereas study by Jariwala V [16] et al showed that depression in elderly is significantly associated with gender, low financial support, and marital status.

On comparing the prevalence of depression among elderly living with their families and living in old age home using GDS-30, the present study showed prevalence of depression was more among elderly living with their families, these results were in contrast to the study undertaken by Deepa. M [17] et al which showed that elderly living in old age homes had higher prevalence of depression than the elderly living with families. Also Chadha N. [18] in a study reported that the mean score of depression was higher among the institutionalized elderly compared to the non-institutionalized group. However study conducted by George S. [19] et al found that there was a high prevalence of depression among geriatric population, residing both in old age homes as well as in own homes and found no significant difference between the two settings.

Conclusions

During the study, we found that elderly living with families and in old age home had experienced mild and severe depression, though elderly living in old age home experienced only mild depression. This indicates that the prevalence of depression was more among elderly living with their families as compared to elderly living in old age home. The study revealed statistically significant relationship between the levels of depression faced by elderly living with their families and their education status.

The study shows clear importance of healthy psychological environment for elderly, hence a constant strive must be made by nurse administrators to ensure creating awareness about the same. Nursing administrators can organize small awareness programmes, health talks, skits and even provide educational materials for elderly in the community and institutionalized settings. Also there exists a need of improving the atmosphere in old age homes by engaging them in some sort of diversional activities. At the same time, community in general must be sensitized towards the psychological needs of the elderly and equipped with ways and means of keeping elderly happy.

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