A Study to Assess the Prevalence of Depression in Elderly in an Old Age Home.

Farhana. M[1*], Lakshmi Prabha[2], Nambi.S[3].

[1]Post Graduate,[2]Assistant Professor,[3]Professor
Department of Psychiatry, Sree Balaji Medical college and hospital.
*Corresponding Author:*Farhana. M*
Mailing address: No 19/10, Valliammal road, Vepery, Chennai- 600007, Tamil Nadu, India
Corresponding Author: Farhana. M

Abstract:
Background: There has been a two fold increase in the older population since 1980 and the numbers have been growing faster in developing countries. This is due to a decline in fertility rates and increase in life expectancy. There is not only an increase in physical burden but also psychological issues in the elderly. Rapid urbanization and a change in family structure causing decreased support for the aged lead to the emergence of old age homes, adjustment to which adds additional psychological burden.
AIMS: To assess the prevalence of depression in elderly in an old age home.
Methods: The study was conducted in 40 inmates aged >60 yearsin an old age home in south India. The socio-demographic details were collected using a semi-structured proforma. General health questionnaire (GHQ- 12) was administered to assess psychological distress. Presence of depression was assessed by administering Geriatric Depression Scale (GDS - 15). Appropriate statistical analysis was done, the results were obtained.
Results: Depression was found in 37.5% of the study population. There is a higher prevalence of depression seen in 7th and 8th decade who are widowed, belonging to lower middle socioeconomic status with presence of chronic illnesses and there is not much difference in gender, though not statistically significant. Among chronic illnesses, depression was seen more in hypertensives (84.6%) followed by diabetics (46.1%), the former being statistically significant.
Conclusion: Persons in old age homes have more risk of developing depression due to not only physical but also social factors. Special care should be given to address their medical needs, providing them with nutritional food and various recreational activities and improve their family ties thereby improving their quality of life.
Keywords: geriatric, depression, chronic illness, elderly, old age home,

I. Introduction

The global population aged over 60 years is 962 million as of 2017, which has increased two folds since 1980. It is expected to double again by 2050 and the number of persons aged above 80 years is projected to increase three folds by then. Two thirds of world's elder older population lives in developing countries and the numbers are growing faster than developed countries. It is expected that by 2050 nearly 8 in 10 of world's geriatric population will be from developing countries[1].There is a demographic transition in India where the life expectancy has doubled from 32 years in 1947 to 63.4 years in 2011[2]. The inevitable increase is due to decline in fertility and improvement in survival leading to low mortality, this "population ageing" phenomenon is occurring worldwide.

Old age is a period where one has to deal with not only physical changes but also challenging factors affecting mental and social wellbeing. Apart from the huge burden of communicable and non-communicable diseases, mental morbidities are on the rise due to ageing of the brain, cerebral pathology, complications of physical diseases. Add to this, the rapidly changing family systems in India and other factors like breakdown of family support systems, social isolation and decreased economic independence making them more prone to psychological problems.

Due to urbanization, modernization, industrialization, globalization[3] and formation of nuclear families [4], there is a growing issue concerning care and support of older people leading to emergence of old age homes[5]. The need to adjust to the new environment along with psychosocial factors such as loneliness and dependency exaggerates the psychological burden associated with ageing, particularly geriatric depression.

Among various psychiatric disorders in elderly, depression is the most common [6,7]. It is a burning public health problem which leads to greater morbidity, increased self-neglect, decreased physical, cognitive

and social functioning and an increased risk of suicide in turn increasing mortality [8]. According to WHO, the prevalence of geriatric depression is 10-20% [9].

The current study was planned to estimate the prevalence of depression among elderly and to determine its correlates in an old age home setting.

II. Methodology

This cross-sectional study was conducted in the paid-old age home in South India. After getting approval from Institutional Ethics committee, the study was done with 40 subjects>60 years of which 14 were males and 26 were females.

- **Inclusion criteria**: age >60 years, clinically stable for interview.
- **Exclusion criteria**: clinically unstable or uncooperative, persons with severe sensory (hearing and visual defects) and communicative impairments.

After obtaining informed consent, the socio-demographic details were collected using a semi-structured proforma. General health questionnaire (GHQ- 12) was administered to assess psychological distress. Presence of depression was assessed by administering Geriatric Depression Scale (GDS).

Appropriate statistical analysis was done, the results were expressed as percentage for qualitative variables and mean and standard deviation for quantitative variables. Chi square test was used to test statistical significance. P value < 0.05 was considered statistically significant. IBM SPSS version 22 was used for statistical analysis.

III. Results

A total of40 subjects were included in the final analysis of which 14 (35%) were male and remaining 26 (65%) were female. The mean age was 70.43 ± 8.24 years in the study population, minimum age was 60 and maximum age was 91. Among the study population, 11 (27.5%) were aged between 60-70 years, 17 (42.5%) were aged between 71-80 years and 12 (30%) were aged between 81-91 years, 11 (27.5%) were married, 9 (22.5%) were single, 19 (47.5%) were widows and 1 (2.5%) was divorced. The subjects ranged from lower to upper middle socio-economic status.

SOCIO DEMOGRAPHIC DETAILS OF STUDY POPULATION

Demographic variables	Frequency (n=40)	Percentages
Age		
60-70	11	27.5%
71-80	17	42.5%
81 and above	12	30%
Gender		
Male	14	35%
Female	26	65%
Marital status		
Married	11	27.5%
Single	9	22.5%
Widow/ widower	19	47.5%
Divorced	1	2.5%
Socio economic status		
Lower	1	2.5%
Lower middle	21	52.5%
Upper lower	7	17.5%
Upper middle	11	27.5%
Upper	0	0%
Chronic illness		
Hypertension	16	40%
Diabetes	15	37.5%
Asthma	3	7.5%
Thyroid disorder	7	17.5%
Osteoarthritis	3	7.5%
Other (epilepsy, cardiac problems)	4	10%

Among the study population, general health was assessed using GHQ, 33 (82.5%) had normal GHQ, 5 (12.5%) showed evidence of distress and 2 (5%) had severe psychological problem.

Depression was assessed using Geriatric Depression Scale short form, out of the study population (n=40), 25 (62.5%) had normal GDS, 13 (32.5%) were suggestive of depression and 2 (5%) had indicative of depression.

Depression was found in 37.5% of the study population. There is a higher prevalence of depression seen in 7th and 8th decade who are widowed, belonging to lower middle socioeconomic status with presence of

chronic illnesses and there is not much difference in gender, though these are not statistically significant. Among chronic illnesses, depression was more in hypertensives (84.6%) followed by diabetics (46.1%), the former being statistically significant.

COMPARISON OF SOCIODEMOGRAPHIC VARIABLES WITH GDS (N=40):

Variables	GDS categories			P-value
	<5 (Normal) (N=25)	5-10 (mild depression) (N=13)	>10 (severe depression) (N=2)	
Age				
60-70	8 (32%)	2 (15.38%)	1 (50%)	
71-80	8 (32%)	9 (69.23%)	0 (0%)	0.1122
81 and above	9 (36%)	2 (15.38%)	1 (50%)	
Gender				
Male	15 (60%)	7 (53.84%)	0 (0%)	
Female	10 (40%)	6 (46.15%)	2 (100%)	0.3266
Marital status				
Married	6 (24%)	4 (30.76%)	1 (50%)	
Single	7 (28%)	2 (15.38%)	0 (0%)	
Widow	11 (44%)	7 (53.84%)	1 (50%)	0.82
Divorced	1 (4%)	0 (0%)	0 (0%)	
Socio economic status				
Lower	1 (4%)	0 (0%)	0 (0%)	
Lower middle	11 (44%)	8 (61.53%)	2 (100%)	
Upper lower	4 (16%)	3 (23.07%)	0 (0%)	0.56
Upper middle	9 (36%)	2 (15.38%)	0 (0%)	
Co-morbidities				
Diabetes	9(36%)	6(46.15%)	0(0%)	0.5562
Hypertension	5(20%)	11(84.61%)	0(0%)	0.0001
Asthma	2(8%)	0(0%)	1(50%)	0.1093
Thyroid disorder	6(24%)	1(7.692%)	0(0%)	0.5836
Osteoarthritis	1(4%)	2(15.38%)	(0%)	0.3724
Cardio vascular disease	1(4%)	2(15.38%)	1(50%)	0.083

IV. Discussion

From the above data, it is to be noted that most of the inmates in this old age home belong to 7th and 8th decade, more number of females, widowed, belonging to the lower middle socioeconomic status. In the present study, prevalence of depression is 37.5%, of which 32.5% had mild depression and 5% had severe depression. There is a higher prevalence of depression seen in 7th and 8th decade who are widowed, belonging to lower middle socioeconomic status with presence of chronic illnesses and there is not much difference in gender, though not statistically significant. Among chronic illnesses, depression was more in hypertensives (84.6%) followed by diabetics (46.1%), the former being statistically significant.It is to be noted that those severe depression (5%) were females, belonging to 6th and 8th decade, married/widowed and were suffering from asthma and cardiovascular disease.

Similar results were noted in previous studies by Tiwari et al (37.7%) [10] and Desai et al (31% were mildly depressed, 6% were severely depressed)[11], more prevalence in females, advanced ages, widowed, low socio economic status and presence of chronic illness.According to previous studies there is a bi-directional association between depression and hypertension [12], diabetes [13], cardiovascular diseases [14], however asthma did not increase the risk of depression based on limited studies[15].Comparative studies done between community population and old age homes by Singh et al [16] and Mohan et al [17] showed depression was most common and highest among old age home inmates than community population. From the above it can be seen that it is not only the physical factors that play a role but also psychosocial factors such as loneliness due to lack of family support, negligible medical care and facilities, restricted environment and financial constraints.

V. Conclusion

From this study we conclude that depression is prevalent among both males and females with age, marital status, socioeconomic status and chronic illness playing key roles. Special attention should be paid to health checkups of depressed persons in OAHs, providing them with nutritional food, various recreational activites and improvement of family ties. Addressing some of these issues may improve the quality of life in the elderly.

Acknowledgement

Bibliograpy

[1]. United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Ageing 2017 - Highlights* (ST/ESA/SER.A/397).

[2]. Government of India. Situation analysis of the elderly in India. Central Statistics Office, Ministry of Statistics & Programme Implementation, Government of India, June 2011.

[3]. Vijaykumar S. Challenges before the elderly: An Indian scenario. New Delhi: MD Publications; 1995. p. 53-77.

[4]. Chadda RK, Deb KS. Indian family systems, collectivistic society and psychotherapy. Indian J Psychiatry 2013;55 Suppl 2:S299‑ 309.

[5]. Singh A, Misra N. Loneliness, depression and sociability in older people.Ind Psychiatry J 2009;18:51‑ 5.

[6]. Psychiatric morbidity in non-psychiatric geriatric inpatients Aman Sood, Paramjit Singh , Parshotam D. Gargi, Indian Journal of Psychiatry 2006;48:56–61

[7]. Psychiatric morbidity in geriatric people Tiple et al, Indian Journal of Psychiatry 2006;48:88–94.

[8]. Blazer DG. Depression in late life: Review and commentary. J. Gerontol. A Biol. Sci. Med. Sci 2003;58:249–65. [PubMed: 12634292]

[9]. Rangaswamy SM, editor. The World Health Organization (WHO). World 19 Health Report: Mental Health: New Understanding New Hope. Geneva, 20 Switzerland: World Health Organization; 2001.

[10]. Tiwari SC, Pandey NM, Singh I. Mental health problems among inhabitants of old age homes: A preliminary study. Indian J Psychiatry 2012;54:144-8.

[11]. Desai R, Abraham D, Harshe DG, Ramakrishnan A, Cholera R, Kale SS. A study of depression, perceived loneliness, cognitive function and independence in daily activities in home and institution based older people: A cross sectional comparative study. J Geriatr Ment Health 2016;3:140-4.

[12]. Huapaya, L., & Ananth, J. (1980). Depression associated with hypertension: A review. Psychiatric Journal of the University of Ottawa, 5(1), 58-62.

[13]. The Prevalence of Comorbid Depression in Adults With Diabetes, Ryan J. Anderson, Kenneth E. Freedland, Ray E. Clouse, Patrick J. LustmanDiabetes Care Jun 2001, 24 (6) 1069-1078; DOI: 10.2337/diacare.24.6.1069

[14]. Dhar AK and Barton DA (2016) Depression and the Link with Cardiovascular Disease. Front. Psychiatry 7:33. doi: 10.3389/fpsyt.2016.00033

[15]. Gao Y-h, Zhao H-s, Zhang F-r, Gao Y, ShenP, Chen R-c, et al. (2015) The Relationship betweenDepression and Asthma: A Meta-Analysis ofProspective Studies. PLoS ONE 10(7): e0132424.doi:10.1371/journal.pone.0132424

[16]. Singh AP, Kumar KL, Reddy CP. Psychiatric Morbidity in Geriatric Population in Old Age Homes and Community: A Comparative Study. Indian J Psychol Med 2012;34:39-43.

[17]. Study of Depression in Geriatric Population: Old Age Home and Community in Lucknow India. U. Mohan, MD, A. Gupta, MD, S. Singh, MD, S. Tiwari, MD and V. Singh, PhD International Journal of Epidemiology, 2015, Vol. 44, Supplement 1.