Prevalence of Depression in Elderly in Pune City: A Survey using Geriatric Depression Scale

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ABSTRACT

Background and need of study- Depression is one of the major factors limiting quality of life and is often neglected in elderly health care. No current data is available for depression in elderly in Pune city. Thus, this study aimed at finding this percentage in elderly in Pune city.
Methodology- 437 elderly from 60 yrs- 70 yrs, using convenience sampling were screened using Geriatric Depression Scale and were analysed for their depression levels using descriptive statistics.
Results- 26.3 % of elderly had mild level of depression and 16.7 % of elderly had severe level of depression as per the survey.
Conclusion - Percentage of depression is alarming in Pune City. Serious steps need to be taken to target this problem in future.

Key words- Elderly, Depression, Pune City, Geriatric depression scale

INTRODUCTION

Number of elderly is increasing worldwide. As per United Nations the number of elderly will be 20 million by 2050.[1] In India, the life expectancy between 2012-2025 has been projected to increase to 69.8 yrs for male and 72.3 yrs for males.[2]

Aging leads to multiple physical and psychological issues in an individual.[3,4,5] Although , modernization has led to advanced quality of life in terms of useful gadgets and facilities that reduced work load and better medical facilities available when needed, it has also lead to nuclear family culture and less need for social contact.[4,5] This results in loneliness, lack of social support and interaction.[4,5,6,7,8] With increasing life expectancy the problems related to elderly like pain aches, medical conditions like diabetes, Hypertension, hear diseases, other chronic illnesses and life style disorders etc. are on rise too.[5,6,7,8] The health care delivery system has not yet advanced with the same limit as that of the life expectance. These factors when combined with their deterioration health condition, may lead to feeling of loneliness, sadness or depression in elderly.[5,6,7,8]

Depression is one of the neglected phenomenon worldwide. As per WHO, mental and behavioral disorders constitute to 12% of burden of disease worldwide.[9] It has

been postulated that, depression alone will be a leading cause of disability adjusted years in developing countries like India. As pr WHO , this percentage is 10-20% in world depending on different cultures.[9,10] It is found to be 13%-25% in India as per study done in 2010 and 2013.[10,11,12]

Cultural practices are one of the differentiating factors for presence of depression. India is a multistate, multi-cultural country where cultural practices and life style change each state. There are limited studies available that shed light on depression in elderly in Indian states and cities. The percentage of elderly in Pune city is not yet explored hence current study was planned with the aim to find out percentage of depression in elderly in Pune city. This study is a part another long term project part of which is being published here.

MATERIAL AND METHODOLOGY

This paper included data which is part of another long-term study. Permission to conduct this study was obtained from Institutional ethics committee of DEB Brijla Jindal College of Physiotherapy, Pune. Elderly of both gender who were between 60-

70 yrs of age who were able to read write understand either Hindi, English or Marathi language and residing in Pune city for at least 10 years were screened using Geriatric depression Scale which is a standard scale used to assess depression.[13,14,15] It has 30 as total score. Any one scoring 0-9 is scored as normal ,from 10-19 is labeled as having mild depression and any one scoring 20-30 is labeled to have severe depression. The scale has been translated in many languages. This study included Marathi, Hindi and English translation which was given to elderly as per their choice of preferred language. The were asked to fill the form on their own. Investigator was present while the scale was being filled. Care was taken to provide same instructions for the questions in case participants raised any doubts or needed any explanations regarding any questions from the scale. Obtained data was analysed using descriptive statistics.
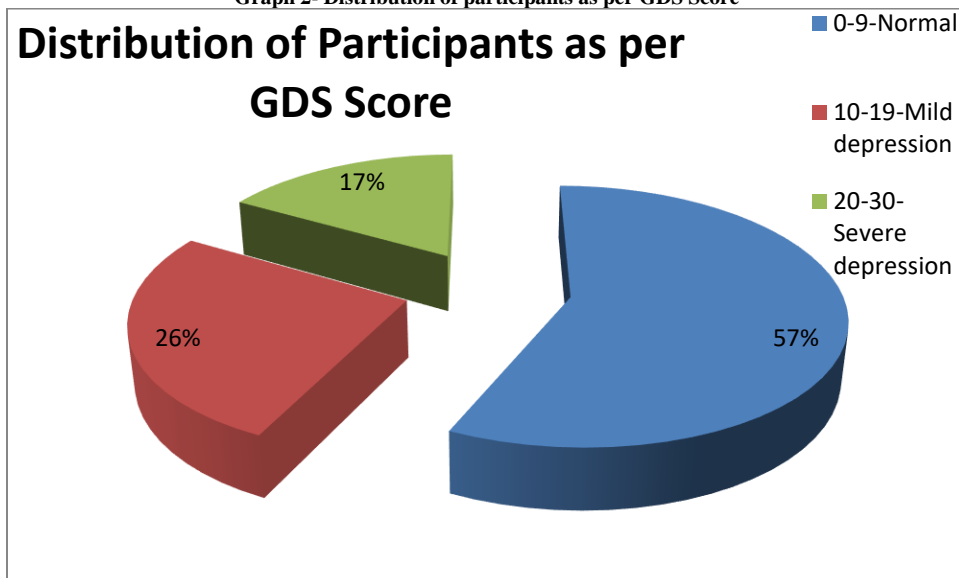
RESULTS

Table 1- Percentage of Male and female participants in study

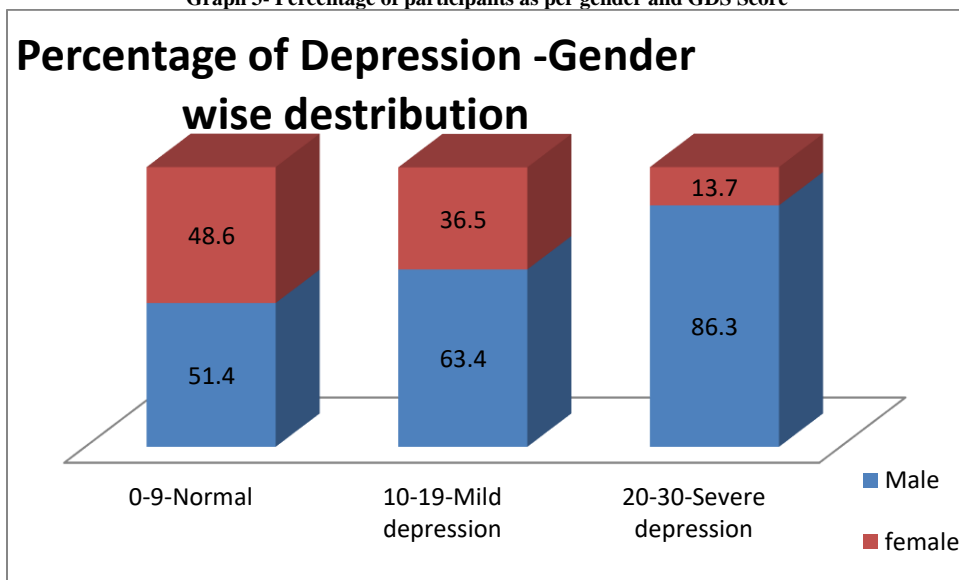|	No of participants	percentage
Male	264	60.411
Female	173	39.589

Graph 1- Age wise distribution of participants
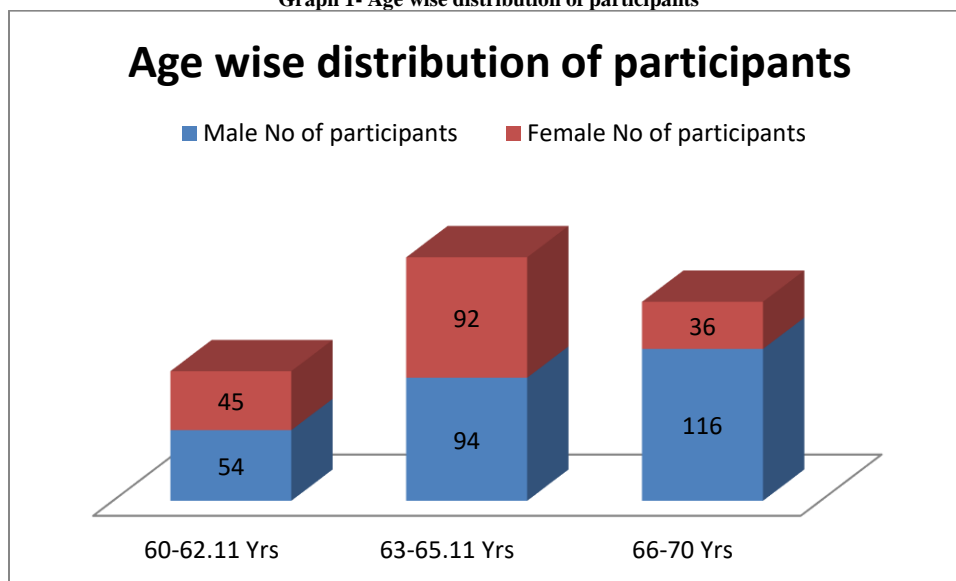
Graph 2- Distribution of participants as per GDS Score

Graph 3- Percentage of participants as per gender and GDS Score

DISCUSSION

This study showed that, almost 53% of the population suffered from depression as per GDS Score. 26.3 % population had mild depression where as 16.7% participants had severe depression. Male population seemed to have more depression as compared to female counterparts.

Different studies done in different parts of India show varied percentage of depression present e.g. Study done in Ludhiana by Senguptah et al showed the percentage to be 8.9%, whereas the same was shown to be 9.3% in Telangana by Chauhan et al.[7,16]

This percentage was near to the said percentage of current study in studies done by Vishal et al in Surat (39.04%), Goswami et al in Maharashtra (41.7%), Sinha et al in Tamil Nadu (42.7%).[6,12,17]

Prevalence of depression in current study was much less than Prevalence found in Nashik city of Maharashtra by Sangle et al (23.51%) and Wardha by Rathod et al (16.75%). [18,19]

Varied percentage of presence of depression in different population can be attributed to presence of facilities available in these areas e.g. presence of medical facility is more in urban area but modernization and social support is less in these regions. Most of the places elderly are alone at home leading to feeling a sense of loneliness and depression. Whereas in rural areas most of the elderly again are staying alone due to children being in cities this along with lack of medical facility may lead them to suffer more as compared to their urban counter parts. Each region has its own advantages and limitations hence life style and presence of facilities determine the presence of depression differently in different population.

There are many other factors like presence of medical conditions, co morbidities, sleep, family support, social interaction, physical capacities, presence of spouse, socio-economic status, personality trends etc. which too should be studied in detail in relation to depression.

In contrast to other studies,[20,21] it was found that male was more depressed as compared to females. Possible reason for this could be the presence of co-morbidities and limited physical capacities in this population. From the information gathered during data collection it was noted that, females were engaged in taking care of grand children at home, many had engaged themselves in to some social clubs and hobby classes as they were from educated background some were still conducting tuitions or were associated with some cause. this percentage was low in males in current population. Many males had retired from elite jobs and did not find any suitable hobby later. They were not interested in any social commitments or were suffering from physical ailments hence didn't participate much in outside activities thus leading to feeling of loneliness and depression. These factors should be studied in detail in future too.

Thus, it can be said that the percentage of depression is alarming in elderly of Pune city and should be taken as a matter to seriously think about. Routine screening and assessment should be done in this regard to ensure early detection and steps to reduce it in elderly.

Since this is secondary analysis of another study, it has many limitations e.g. Co-morbidities, sleep quality, socioeconomic status, educational status, presence of family members, social involvement, decision making role, earning, mental abuse and other factors which are found to correlating with depression,[20,21,22] could not be studied in regard to depression which can be done in future. A separate and bigger exploratory study should be done to shed more light on this aspect in future.

Clinical Implication
This information can be used for creating awareness about depression in elderly in general population. The information also is useful for policy making to for detection, prevention and treating depression in elderly.

REFERENCES
1. United Nations Population Fund. Caring for Our Elders: Early Responses India Aging Report – 2017. New Delhi: 2017.
2. Ministry of Health and Family Welfare. Family Welfare Statistics in India. 2011. [Last accessed on 2015 Nov 15, Last updated on 2017 Apr 28]
3. Parkar SR. Elderly mental health: Needs. Mens Sana Monogr. 2015; 13:91–9.
4. Fiske A, Wetherell JL, Gatz M. Depression in older adults. Annu Rev Clin Psychol. 2009; 5:363–89.
5. Ranjan S, Bhattarai A, Dutta M. Prevalence of depression among elderly people living in old

age home in the capital city Kathmandu? Health Renaissance. 2013; 11:213–8.

6. Jariwala V, Bansal RK, Patel S, Tamakuwala B. A study of depression among aged in Surat city. Natl J Commun Med.2010; 1:47–9.

7. Sengupta P, Benjamin AI. Prevalence of depression and associated risk factors among the elderly in urban and rural field practice areas of a tertiary care institution in Ludhiana. Indian J Public Health. 2015; 59:3–8

8. Harinder S, Minhas S, Ahmed S, Garg R. A study of depression in geriatric population in a rural area of north India.Scholars Acad J Biosci. 2015; 5:26–9.

9. World Health Organization. World Report on Ageing and Health. [Last accessed on 2015 Nov 02, Last updated on 2015 Jun 04]. Available from: http://www.apps.who.int/iris/bitstream/ 10665/186463/1/9789240694811_eng.pdf ua=1 .

10. Barua A, Ghosh MK, Kar N, Basilio MA. Distribution of depressive disorders in the elderly. J Neurosci Rural Pract.2010;1:67–73.

11. Abhishekh HA, Karthik R, Shivakumar S, Balaji AL. Prevalence of depression in community dwelling elderly: Study from rural population. J Neurosci Rural Pract. 2013;4(Suppl 1): S138

12. Sinha SP, Shrivastava SR, Ramasamy J. Depression in an older adult rural population in India. MEDICC Rev.2013; 15:41–4.

13. Krishnamoorthy Y, Rajaa S, Rehman T. Diagnostic accuracy of various forms of geriatric depression scale for screening of depression among older adults: Systematic review and meta-analysis. Archives of Gerontology and Geriatrics. 2020 Mar 1; 87:104002.

14. Stone LE, Granier KL, Segal DL. Geriatric depression scale. In Encyclopedia of gerontology and population aging 2022 May 24 (pp. 2112-2119). Cham: Springer International Publishing.

15. Yesavage JA, Brink TL, Rose TL, Lum O, Huang V, Adey M, Leirer VO. Development and validation of a geriatric depression screening scale: a preliminary report. Journal of psychiatric research. 1982 Jan 1;17(1):37-49

16. Chauhan P, Kokiwar PR, Shridevi K, Katkuri S. A study on prevalence and correlates of depression among elderly population of rural South India. Int J Commun Med Public Health. 2016; 3:236–9

17. Goswami S, Deshmukh P, Pawar R, Raut A, Bhagat M, Mehendale A. Magnitude of depression and its correlates among elderly population in a rural area of Maharashtra: A cross-sectional study. J Family Med Prim Care. 2017; 6:803–12

18. Rathod MS, Dixit JV, Goel AD, Yadav V. Prevalence of Depression in an Urban Geriatric Population in Marathwada Region of Western India. Indian J Psychol Med. 2019 Jan-Feb;41(1):32-37. doi: 10.4103/IJPSYM.IJPSYM_234_18. PMID: 30783306; PMCID: PMC6337928.

19. Sangale S,Shende M.Prevalence of depression among older adults in rural and urban areas.Int Journal of Multidciplinary Education and research.202.%(1):18-21.

20. Radhakrishnan S, Nayeem A. Prevalence of depression among geriatric population in a rural area in Tamil Nadu. Int J Nutr Pharmacol Neurol Dis. 2013; 3:309–12.

21. Seby K, Chaudhury S, Chakraborty R. Prevalence of psychiatric and physical morbidity in an urban geriatric population. Indian J Psychiatry. 2011; 53:121–7

22. Maulik S, Dasgupta A. Depression and its determinants in the rural elderly of West Bengal: A cross sectional study. Int J Biol Med Res. 2012;3:1299–302.

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