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Prevalence of depression among older adults in rural and urban areas

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Abstract
Background: The World Health Organization (WHO) described depression as a major, worldwide cause of disability. Depression, the most common psychiatric disorder among the elderly. Major depression may decrease the ability to habituate to the aversive symptoms of chronic medical illness. Later-life depressive disorders are a major public health problem in primary care settings. The impact of depression on health extends beyond quality of life and functioning outcome
Objective: To compare the prevalence of depression among rural and urban geriatric individuals in rural, Vinchur and in urban Nashik city, Dist- NASHIK, India.
Method: The study was across-sectional comparative study with 120 participants aged over 60 from rural (Vinchur, Nashik) and urban area (Nashik city), NASHIK were interviewed to screen their depression using geriatric depression scale (GDS) using simple random sampling.
Result: Using unpaired't' test there is significant difference in rural and urban areas and rate of depression in males and females is equal. This study revealed that 23.51% rural individuals suffering from depression and 16% urban individuals suffering from depression.
Conclusion: It was concluded that prevalence of depression in rural geriatric population is significantly high than the urban population.

Keywords: depression, rural, urban, geriatric individuals, geriatric depression scale

1. Introduction
The World Health Organization (WHO) described depression as a major, worldwide cause of disability [1]. Depression, the most common psychiatric disorder among the elderly, it is commonly misdiagnosed and undertreated [2]. Depression in later life is particularly costly because of the excess disability it causes and its deleterious interaction with physical health. Elderly are more prone to psychological problems. In fact the elderly in India face a multitude of psychological, social, and physical health problems [3].
Later-life depressive disorders are a major public health problem in primary care settings [4]. Characterized by sadness, loss of interest or pleasure and feeling of guilt or low self worth, disturbed sleep or appetite, feeling of tiredness and poor concentration. The impact of depression on health extends beyond quality of life and functioning outcomes [6]. Depression is the third leading contributor to the global disease burden but will rise to the first place by 2030 [5]. Depressive illness comes in different forms, just as many other illness: Major depression is manifested by a combination of symptoms that interfere with the ability to work, enjoy, eat, and sleep once pleasurable activities. Episodes of depression can occur several times in lifetime. Insomnia is often overlooked risk factor for late-life depression [19].
Preventive interventions including education for individuals with chronic illness, behavioral activation, cognitive restructuring, problem-solving skills training, group support, and life review have also received support [6]. Treatments including behavioral therapy, cognitive-behavioral therapy, problem-solving therapy, brief psychodynamic therapy and life review/reminiscence therapy are effective but are too infrequently used with older adults [6].
The possibility of a rural and urban difference in the prevalence of major depression has been on interest to researchers and mental health service providers. Depression status also varied significantly between provinces, gender and income within the rural and urban areas. Various studies have been stated that the geographical characteristics such as rural and urban residence affects the depression status. Several studies have shown association between elderly depression and factors like illiteracy, poverty and manual labour.
The geriatric depression scale is first developed in 1982 by J.A.Yesavage and others. Yesavage stated that the geriatric depression scale is the most reliable scale [7]. As a geriatric depression is commonly used as a routine part of comprehensive geriatric Assessment. The original GDS is a 30- item yes/no self-report questionnaire completed by the patient that is widely used to screen for depression in the elderly[9]. Score ranges from 0-9 is normal, 10-19 indicates mildly depressed and 20-30 indicates severely depressed [8]. The overall sensitivity 92% and specificity were 89% [10].

2. Materials and methods
2.1 Materials: the materials used in the study were the questionnaire: geriatric depression scale, and the data collection sheet.

2.2 Methods
This cross-sectional comparative study was conducted among rural and urban geriatric individuals. Urban area from Nashik and rural area from Vinchur (Nashik district).

The study protocol was approved by ethical committee of Dr, A.P.J. Abdul kalam college of physiotherapy, loni. The data was collected by simple random sampling and participant were screen according to inclusion and exclusion criteria. All participants were analyzed by geriatric depression scale to check depression in geriatric individuals. Geriatric depression scale consisting of 30 questions.

3. Results

Data analysis

3.1 Demographic profile of all participants.

Table 1

Age	60-69years
Gender	**Males and females**
Rural	60
Males	22
Females	38
Urban	60
males	29
Females	31

1.2 Demographic profile of all rural and urban participants.

Table 2

	Rural	Urban
Age	63.3	62.4
Score	23.5%	16%

Table 1 - Shows that the prevalence of depression in elderly population in rural area was found to be 23.5% and in urban areas 16. The prevalence was significantly higher in rural population than urban population.

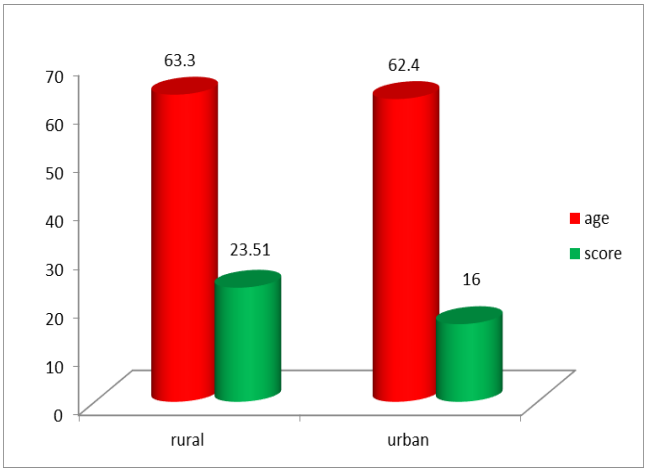

Fig 1: %of prevalence of rural and urban depression chart

3.3 Demographic details of depression in males and females from urban and rural areas.

Table 3

	Rural	Urban
Males	23.5	16
Females	23.5	15.9
Total	23.5	16

Table No.2 %prevalence of depression in males and females.

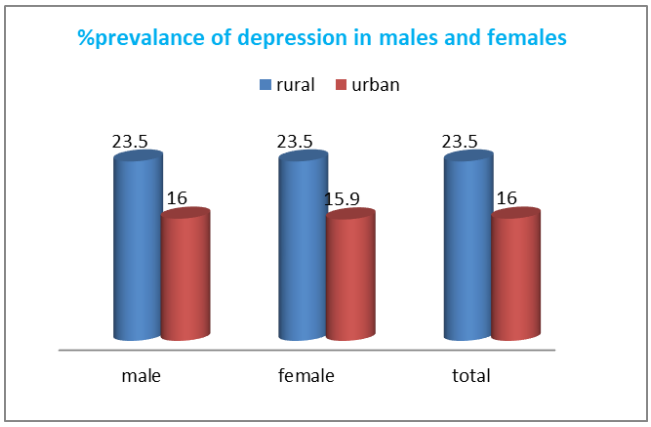

Fig 2: Shows that prevalence of depression in males and females is equal from urban and rural geriatric population.

Results

1.1 shows that total 120 subjects were interviewed and from that distribution of the study population were rural and urban wise. Were 60 rural and 60 urban. Maximum number of population were in the age group of between 60-69 years.

Table No.1 shows that prevalence of depression in rural geriatric population is 23.51% and in urban geriatric population is 16%. The prevalence was significantly higher in rural geriatric population.

Table No. 2 shows that there is equal prevalence of depression in males(R- 23.5%, U-16%) and females(R-23.5%, U- 15.9%) from rural and urban areas.

4. Discussion

Depression, the most common psychiatric disorder among the elderly [2]. Depression decreases an individual's quality of life and increases dependence on others [1]. Depression in later life is particularly costly because of the excess disability it causes and its deleterious interaction with physical health. The prevalence of depression was observed to be associated with substance abuse, unemployment, disrupted mental status, illiteracy and poor economic status [11]. Major depression is manifested by a combination of symptoms that interfere with the ability to work. Yesavage stated that the geriatric depression scale is the most reliable scale[7]. As a geriatric depression is commonly used as a routine part of comprehensive geriatric Assessment.

In this study prevalence of depression is approximately 23.51% in rural geriatric individuals and 16% in urban geriatric individuals. A analysis conducted by applying student‘s unpaired_t‘ test. There is significant difference between mean values of GDS in rural and urban areas and rate of depression in males and females is equal. We used Hindi version of GDS-30 scale to screen. There are researchers reported a prevalence of depression in rural area and urban area likely, 36% in rural and 27% in urban areas in “Epidemiological study of depression among population above 60 years in Visakhapatnam, India” by S Manjubhashini [11] concluded that risk factors like socioeconomic status, past history of depression, perceived poor health status. In our study prevalence of depression in urban area higher than rural area. There are many studies

like, 44.7% in rural area in "Prevalence and risk factors of depression among elderly population in a rural area" Vutoor by Trupti N.Bodhare [12]. And 31.4% in a rural population of "Depression among elderly persons in a primary health centre area in Ahmednagar" in Maharashtra[7]. A. Dasgupta, D Ray [13] in his study "Depression among the geriatric population is a matter of concern: a community based study in a rural area of West Bengal" concluded that 61.2%prevalance of depression is higher in rural area of West Bengal. 16.75% depression in urban geriatric population of Marathwada concluded by Mamta S Rathod in his study "Prevalance of depression in an Urban Geriatric Population in Marathwada Region of Western India" [14]. We have excluded individuals with cognitive impairment, neurological impairment and physical disability. Ignorance of elderly in household decision making, financial dependency, and socioeconomic status identified significant risk factor of depression in elderly. Manju pilani [1] also shows the same significant risk factor in her study "Elderly depression in India: An emerging public health challenge" and Sreejith S.Nair [11] in his study "Depression among geriatrics: Prevalence and associated factors" also concluded that the relation of depression with socioeconomic status and Illiteracy leads to greater difficulty in getting jobs leading to depression in both rural and urban individuals.

In study of assessment of socio-demographic correlates of depression among the elderly in an urban area in Maharashtra, Yadav, Swapnil P mention the 34% respondents were suffering from depression who were living alone as compared to 11.52% found among those who were living with their family. Poverty and physical ill health are risk factors for depression among elderly while good social support is protective is concluded by Rajkumar in 2009 in his study "Nature, prevalence and factors associated with depression among the elderly in a rural south Indian community" In urban all family members out at work, they don't have time to interact with each other, hectic lifestyle. Age is also the risk factor of depression in our study. As age increases rate of depression also increases. There was a significant association of depression with increasing age and illiteracy. While many researchers like Sengupta[15], Barua[17] and Rajkumar [16] have reported similar risk of depression with increasing age. In urban areas, facilities for social gatherings, geriatric clinics, yoga or laughing classes help to reduce % of depression in geriatric population. Functional disability in older persons is predictor of late life depressive symptoms observed by Lenze.

Kim Byung-Soo in his study "Impact of illiteracy on depression symptomatology in community-dwelling older adults" concluded that Illiteracy in elderly individuals was associated with a higher rate and increased severity of depression. Illiteracy negatively affected depression symptomatology [18].

5. Conclusion

Study concluded that the prevalence of depression observed higher among rural geriatric individuals as compared to the urban geriatric individuals, it was observed to be associated with increasing the age, poverty, those economically dependent, low socio-economic status and illiteracy. In this study the prevalence of depression is equal in both males and females.

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