



Comparative Study of Psychological Morbidities in Geriatric Population of Rural and Urban Dwellers of Bareilly, Uttar Pradesh

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ABSTRACT

Introduction: Senility, poor health, dependency, helplessness, widowhood and low self-esteem are the risk factors that influence both the extent and severity of psychological morbidity and quality of life.

Materials and Methods: This is a cross-sectional, observational, community based study on the geriatric dwellers of rural and urban catchment area of RHTC (Rural Health & Training Centre & UHTC (Urban Health & Training Centre) of Dept. of Community Medicine, Rohilkhand Medical College & Hospital, Bareilly. The required sample has been taken using Simple random sampling technique by Random number table method. Depression Anxiety and Stress Scale (DASS) was used to calculate the psychological morbidities which is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. The data was entered and analysed using SPSS version 22.0.

Result: The geriatric population under study which suffered from one or more forms of psychological morbidities in the form of Depression, Anxiety and Stress was 93.9%. There was a significant association of stress with age.

Conclusion: The elderly suffered from one or more forms of psychological morbidities in the form of Depression, Stress & Anxiety. Depression & Stress were more prevalent in the urban population and Anxiety is more prevalent in the rural population.

Key words: Psychological morbidities, DASS

INTRODUCTION

"Old age is not a disease- it is strength and survivorship, triumph over all kinds of vicissitudes & disappointments, trials & illnesses." - Maggie Kuhn

Eric Erikson in his theory of personality has rightly named the old age, the last stage in life span of man, a stage of maturity, as it involves certain physical & psychological changes which in turn lead to personal, interpersonal & social adjustments. The geriatric population is defined as population aged 60 years and above¹. Life expectancy is projected to increase to 67 years for males and 69 years for females by 2016². In U.P., prevalence of psychiatric disorders was found to be more in ger-

iatric age group (42.21%) when compared to non-geriatric population (3.97%), Depression and anxiety disorders are most common³. Nearly 4 million Indian elderly are mentally ill⁴. Mental disorders in the elderly often go untreated due to misperceptions that these disorders are a normal part of aging and a natural reaction to chronic illness, loss of family members, social transition occurring with age⁵. With increase in the geriatric population and the expected decline in the proportion of middle aged people, who are the caregivers for both the geriatric and pediatric population, burden on this group is likely to mount leading to unforeseen problems. So this study is to explore the uncharted sea of geriatric dwellers of rural and urban parts of Bareilly.

AIM & OBJECTIVES

The research was conducted to study the socio-demographic profile, prevalence and pattern of psychological morbidities in the geriatric population of rural and urban dwellers of Bareilly, UP.

MATERIALS AND METHODS

Bareilly Dist. has a population of 44,48,359 among which the Rural population is 28,79,950 and the urban population is 15,68,409 (Census,2011), the elderly population defined as per United Nations guidelines ⁶.

The indexed study is a cross-sectional, observational, community based study on the geriatric dwellers of rural and urban Bareilly UP, India. Before commencing the study, approval was obtained from the Institutional Ethical Committee of Rohilkhand Medical College & Hospital Bareilly.

A sample size of 245 is estimated using the formula $4pq/L^2$ (Prevalence of 42.21%⁴, allowable error 15% and 95% confidence).

The required sample has been taken using Simple random sampling technique. Individual unit (family) constituting the sample has been randomly selected by Random number table method. When the selected subject was not found at the first interview, date and time was taken from their family members for revisit.

The study has been conducted by door to door survey and residents of the houses were queried for the presence of any resident of age 60 years and above in the house. From each household, the individual was the unit of study.

If that household has greater than one individual aged 60+ years then from that house one of them was randomly picked up. Face to face interview was taken using schedule & the details were documented after taking informed consent.

Depression Anxiety and Stress Scale (DASS) was used to calculate the psychological morbidities which is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. The essential function of the DASS is to assess the severity of the core symptoms of depression, anxiety and stress.

Each of the three DASS scales contains 14 items, divided into subscales of 2-5 items with similar content. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress scale is sensitive to levels of chronic non-specific

arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient.

The essential function of the DASS is to assess the severity of the core symptoms of depression, anxiety and stress ⁷.

RESULTS

In this study total 245 elderly people were included as per United Nations guidelines out of which there were 114 males and 131 female, among them 111 were from rural area and 134 were from urban area. These individuals were analysed for psychological morbidities including 3 parameters namely Depression, Anxiety and Stress.

As per Table-1, out of total elderly population, maximum 45.7% belonged to 60-64 years, followed by 36.3% & 18% from 65-69 years and 70 years and more respectively. There were 53.5% females and 46.5% males, out of which 55.5% were rural dwellers and 44.5% were urban dwellers.

It was observed that 93.9% of the geriatric population under study suffered from one or more forms of psychological morbidities in the form of Depression, Anxiety and Stress. However, it was observed that 6.1% population under study was free from any psychological morbidity.

Table-2 shows Association of age with depression which was observed maximum 46.8% in the age group 60-64, followed by 35.2% and 18.1% in the age groups 65-69 & 70+ respectively. There was no significant association observed (p-value= 0.529). It also shows association of age group distribution with Stress. Stress was observed maximum 53.7% in the age group 60-64, followed by 63.6% and 45.5% in the age groups 65-69 & 70+ respectively. There was significant association observed (p-value= 0.00). Also, there is association of age with Anxiety which was observed maximum 42.9% in the age group 60-64, followed by 38% and 19% in the age groups 65-69 & 70+ respectively. There was no significant association observed (p-value= 0.076)

Table-3 shows Association of Gender with Depression. Depression was observed to be maximum 53.7% in the females & 46.3% in the males. There was no significant association observed (p-value= 0.841). Also, it shows association of gender distribution with Stress. Stress was observed to be more 54.9% in the females as compared to 45.1% in the males. There was no significant association observed (p-value= 0.529). Anxiety was observed to be more 50.7% in the females as compared to 49.3% in the males. There was significant association observed (p-value= 0.052)

Table-1: The distribution of the study population according to socio demographic profile

Variables	Frequency (%)	Cumulative percent
Age		
60-64	112 (45.7)	45.7
65-69	89 (36.3)	82
70+	44 (18)	100
Gender		
Male	114 (46.5)	46.5
Female	131 (53.5)	100
Residency		
Rural	136 (55.5)	55.5
Urban	109 (44.5)	100

Table-2: Association of Age with psychological morbidities in geriatric population

Age group	Psychological Morbidities			Total (n=245)
	Depression (n=216)	Stress (n=164)	Anxiety (n=205)	
60-64	101 (46.8)	88 (53.7)	88 (42.9)	113 (46.1)
65-69	76 (35.2)	56 (34.1)	78 (38.0)	88 (35.9)
70+	39 (18.1)	20 (12.2)	39 (19.0)	44 (18.0)
p value	0.529	0.000	0.076	

Figures in parenthesis indicate percentage.

Table-3: Association of Gender with psychological morbidities in geriatric population

Gender	Psychological Morbidities			Total (n=245)
	Depression (n=216)	Stress (n=164)	Anxiety (n=205)	
Male	100 (46.3)	74 (45.1)	101 (49.3)	114 (46.5)
Female	116 (53.7)	90 (54.9)	104 (50.7)	131 (53.5)
p value	0.841	0.529	0.052	

Figures in parenthesis indicate percentage.

Table-4: Association of Residence with psychological morbidities in geriatric population

Residence	Psychological Morbidities			Total (n=245)
	Depression (n=216)	Stress (n=164)	Anxiety (n=205)	
Rural	119 (55.1)	85 (51.8)	115 (56.1)	136 (55.5)
Urban	97 (44.9)	79 (48.2)	90 (43.9)	109 (44.5)
p value	0.720	0.099	0.675	

Figures in parenthesis indicate percentage.

Table 5: Comparing the psychological morbidities between geriatric rural & urban dwellers of Bareilly

Psychological morbidities	Residency		Total (n=245) (%)
	Rural (n=136) (%)	Urban (n=109) (%)	
Depression			
normal	17 (12.5)	12 (11)	29 (11.8)
Abnormal	119 (87.5)	97 (89)	216 (88.2)
Stress			
Normal	17 (12.5)	12 (11)	29 (11.8)
Abnormal	119 (87.5)	97 (89)	216 (88.2)
Anxiety			
Normal	21 (15.4)	19 (17.4)	40 (16.3)
Abnormal	115 (84.6)	90 (82.6)	205 (83.7)

Depression was observed to be more 55.1% in the rural dwellers as compared to 44.9% in the urban dwellers. There was no significant association observed (p-value= 0.720). It also shows association of Residency distribution with Stress. Stress was observed to be more 51.8% in the rural dwellers as compared to 48.2% in the urban dwellers. There was no significant association observed (p-value= 0.099). It was also found that there was association of Residency distribution with Anxiety which was more 55.1% in the rural dwellers as compared to 44.9% in the urban dwellers. There was no significant association observed (p 0.720) (Table-4)

DISCUSSION

It was found that most of the subjects under study suffered from one or more forms of psychological morbidities. 93.9% of the subjects were found to be a victim of psychological problems namely, Depression, Stress & Anxiety. Only 6.1% of the subjects were free from any above mentioned psychological illness.

The prevalence of psychological morbidities was more among the urban dwellers compared to the rural population. Ramachandran et al.⁸ in his study has demonstrated that the prevalence of mental disorder was 33.9% of the elderly population (60 years and older) and estimated that the prevalence of mental disorder in those 50 years and older was 34.9% in the area of Madras, India. The most prevalent disorder amongst the elderly population, as reported by many field-surveys conducted in India and abroad, was depression. Depression was found in 16.4% of the population, which is similar to a 13.3–18.3% prevalence reported in the literature^{9,10}. Banerjee and MacDonald et al.¹¹ in their study found that depression was prevalent in 26.0% of their sample comprising persons aged 65 years and above. Rao et al.¹² in his study on geropsychiatric morbidities in a semi urban area near Madurai, India concluded the prevalence ranged from 6.0% to 55.2%. Steffens et al.¹³ concluded the Presence of co-morbid depression greatly increases health care cost with decrement in function and well being, that are similar to those associated with chronic medical disease. Hughes et al.¹⁴, In his study on ‘does age make a difference in the effects of physical health and social support on the outcome of a major depressive episode?’ concluded the overall prevalence of depression was found to be 47.0%. Venkoba Rao et al.¹⁵ in his study on problems of the aged seeking psychiatric help concluded the prevalence of depression to be 43.0%. Jariwala et al.¹⁶ in his study of depression among aged in Surat city, India concluded the prevalence of depression was moderately high (39.04%) among the elderly in his study population

and it was observed that several important socio-demographic variables had shown a significant association with depression in the elderly. Nandi et al.¹⁷ in his study on psychiatric morbidity in an elderly population in a rural community in West Bengal, India found that 61 % of the elderly population (60 years and above) were mentally ill. If this rate is projected on the national figure of the number of elderly population in 2000 AD, mentally ill persons aged 60 years and above comes around 36 million.

CONCLUSION

It is concluded that the prevalence of psychological morbidities among the geriatric population was found to be 93.9%. The elderly suffered from one or more forms of psychological morbidities in the form of Depression, Stress & Anxiety.

6.1% of the elderly population was found to be free from any above mentioned psychological problems. The trend showed that Depression, Stress & Anxiety were highest in the age group 60-64 years and in the Female elderly population. The urban population seemed to be affected slightly more than rural population in psychological morbidities.

RECOMMENDATIONS

The elderly population constitutes an important part of the society. A more generous approach is required to tackle with the issues faced by them. Their problems need to be addressed on a larger scale.

It is important to address their issues including psychological problems and merely attributing Depression, Anxiety and Stress among them to their age is not enough.

A through action plan is required to deal with their issues. At the same time it is important to analyze the root cause of the problem before drawing conclusions.

The trends show that Psychological morbidities among the geriatric population remain un-addressed on a larger scale.

Promoting big families instead of nuclear ones, setting up more old age homes could be of help and encouraging young people to stay with their parents & grand parents could significantly cause reduction in the prevalence of psychological morbidities among the elderly.

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