ORIGINAL RESEARCH PAPER

Public Health

KEY WORDS: Rural, Elderly, Psychiatric Morbidity

PSYCHIATRIC MORBIDITY AMONG RURAL ELDERLY POPULATION IN WESTERN MAHARASHTRA, INDIA

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INTRODUCTION:

According to the United Nations World Population Prospects (United Nations, Department of Economic and Social Affairs, Population Division) the population aged 60 or over are "the elderly".[1] In India Ministry of Finance has defined senior citizens as 60 and above for all benefits under Government schemes.[2]

Psychiatric morbidity generally refers to the incidence of both physical and psychological deterioration as a result of a mental or psychological condition.[3] The term usually applies to those who are acutely aware of their condition, despite the mental deterioration. According to World Health Organisation, morbidity itself is measured according to the number of people affected, the types of illnesses, and how long the illness lasts.[3]

Elderly population is challenged by many psychiatric ailments due to factors including , pain, chronic disease and disability, frustration with the limitations in activities of daily living , lack of adequate social support, adverse life events (bereavement, poverty, separation, divorce, social isolation) and personality traits (anxious or avoidant, dependent). Community based studies done on psychiatric morbidity among elderly in India are very few.[4-8]

Study conducted by Tiwari[4], almost a decade ago using International Classification of Diseases-9 (ICD-9) diagnostic criteria, reported 43.32 per cent psychiatric morbidity in rural elderly. Some of the community-based studies have focused only on specific disorders like depression or dementia in the elderly population. Various studies from India showed prevalence of psychiatric morbidity in rural elderly ranging from 12 percent to 31 percent.[9,10]

India's Ministry of Health and Family Welfare estimates that as many as one out of four Indian families have at least one member diagnosed with some sort of mental illness and that at least 7% of the population is likely to suffer from "severe" mental illness. Inclusion of mental health illnesses in non-communicable diseases is a significant change from previous policies where the disease did not see targeted policy intervention.

Importance of mental health and mental disorders is not regarded same as physical health and this is quiet miserable. Burden of these disorders is likely to increase to 15% by 2020 (World Health Report, 2001). As a result, the country is suffering from an increasing burden of mental disorders, and a widening "treatment gap". The study is in accordance with the National Mental Health Programme (NMHP) and seeks to enable the frontline health workers for improving their diagnostic skills to identify common psychiatric problems at their health facility level so that they can manage the mental health problems independently. In case they are not able to manage at their own level, referral support to the appropriate facility can be done in timely manner.

Objectives of the study are to estimate the prevalence of psychiatric morbidity in rural elderly and to identify associated socio-demographic factors.

MATERIALS AND METHODS:

This community based cross sectional study was conducted in a rural field practice area of a medical college in Western Maharashtra. Study population was elderly population (age of 60 years and above) residing in the study area. Duration of the study was from 01 Oct 2017 to 31 Dec 2017.

Sample size: Sample size was calculated to estimate 95% confidence interval for proportion of elderly having psychiatric morbidity, with error of margin as 5 %. Based on expected prevalence of psychiatric morbidity in rural elderly population of 33.9%[11], a minimum sample of 127 elderly was required using finite correction. There were 202 elderly in the study area and we included all in this study.

Study tool: Global Mental Health Assessment Tool - Primary care version (GMHAT/PC) - The GMHAT/PC tool was developed in UK and was approved by WHO in 2000 as a comprehensive tool for mental health assessment. The tool was extensively studied and validated in different settings in India and abroad. It is a Computer assisted clinical diagnostic tool [9] which has been validated in English [12-14], Hindi [15], Marathi, Arabic [16], and Spanish [17].

This tool covers diagnosis of wide range of mental disorders, provides guidelines for management, and can provide a referral letter to the psychiatrist. The tool is user friendly and provides for detailed yet focused health interview of the patient. It also generates alternative diagnoses and co morbid states based on the presence of symptoms related to other disorders. We used GMHAT/ PC Marathi version for our study.

Operational Definitions:

Psychiatric morbidity: was defined as having a diagnosis of depression, dysthymia, mania, anxiety disorder, panic disorder, phobic disorder, anorexia nervosa or bulimia nervosa.

Anxiety: is a feeling of worry, nervousness, or unease about something with an uncertain outcome.

Depression: is a mood disorder characterized by low mood, a feeling of sadness and a general loss of interest in things.

Literacy: Literates were defined as those who were able to read and write.

Socio-economic status: Modified B G Prasad socioeconomic

classification scale, 2016 was used for estimating the socioeconomic status of study participants.

Analysis: Data was summarised by proportion and mean and SD. Logistic regression was used to assess association of psychiatric morbidity with various socio-demographic factors. Those variables found to have significant association with outcome in bivariate analysis were included for multivariable analysis. Crude Odds ratio and adjusted Odds ratio with 95 % CI were calculated. P-value of less than 0.05 was considered to be statistically significant. Data was analyzed using SPSS 20 software.

Ethical issues: Ethical clearance for the study was taken from IEC of the institute. A written informed consent was taken from all the participants involved in the study.

RESULTS

Socio demographic profile: A total of 202 elderly persons were included in the study, out of which 51.48% were males and 48.51% females. (Table 1)

Table 1. Distribution of study subjects according to socio-demographic characteristics.

Socio Demographic Variables	Study subjects (N=202)	Percentage
Gender		
Male	104	51.48
Female	98	48.51
Age group		
60-75years	172	85.14
≥76years	30	14.86
Marital status		
Currently Married	146	72.27
Notcurrentlymarried (Unmarried /Widow/Separate/divorced)	56	27.72
Education		
Illiterate	71	35.14
Literate	131	64.85
Socioeconomic status		
Lower	120	59.40
Middle and above	82	40.59

Psychiatric morbidity:

Prevalence of psychiatric morbidity in rural older adults was found to be 15.8%.

Psychiatric morbidity was present in 14.5 % in the age group of 60 to 75 years compared to 23.3% in above 75 years age group. It was higher in females (21.42%) as compared to males (10.58%).

Significant association was present between marital status and psychiatric morbidity. Psychiatric morbidity was lower among currently married individuals as compared to others (10.27% Vs 30.36%, p value<0.001 (Table 2)

Table 2. Association of Psychiatric morbidity with various socio demographic factors among study subjects

Variables	N	Anypsychiatric morbidity(%)	OR(95%CI)	p value	AdjustedOR(95%CI)	p value for adjustedOR
Age						
60-75	172	25(14.5%)	Ref	0.29		
≥76	30	7(23.3%)	1.79(0.69,4.6)			
Gender						
Male	104	11(10.58%)	Ref	0.04	Ref	0.32
Female	98	21(21.42%)	2.3(1.05,5.08)		0.65(0.27,1.53)	
Maritalstatus						
Married	146	15(10.27%)	Ref	0.001	Ref	0.006
Unmarried	56	17(30.36%)	3.8(1.74,8.31)		3.25(1.4,7.5)	
Socioeconomicstatus						
Middleandabove	82	10(12.2%)	Ref	0.24		
Lower	120	22(18.33%)	1.61(0.72,3.62)			
Education						
Literate	131	18(15.92%)	Ref	0.27		
Illiterate	71	14(24.56%)	1.54(0.72,3.32)			

Anxiety symptoms; Anxiety was present in 17 (8.42%) of study participants. Anxiety was found in 11.2% of females as compared to 5.8% males. Anxiety was present in 5.5% individuals who were currently married as compared to 16.1% in those who were unmarried, widowed, separated or divorced. (Table 3)

Table 3. Association between Anxiety and various Socio demographic factors

Variables	N	Anxiety(%)	OR(95%CI)	p value
Age				
60-75	172	14(8.1%)	Ref	0.74
≥76	30	3(10%)	1.25(0.34,4.66)	
Gender				
Male	104	6(5.77%)	Ref	0.17
Female	98	11(11.22%)	2.06(0.73,5.8)	
Maritalstatus				
Married	146	8(5.48%)	Ref	0.02
Unmarried	56	9(16.07%)	3.3(1.2,9.05)	
Socioeconomicstatus				
Middleandabove	82	4(4.88%)	Ref	0.14
Lower	120	13(10.83%)	2.37(0.74,7.5)	
Education				
Literate	131	9(6.9%)	Ref	0.29
Illiterate	71	8(11.3%)	1.7(0.63,4.68)	

Depression: Depression symptoms were present in 15 (7.43%) study participants. It was seen among 10.2% of females as compared to 4.8% males. Depression was found to be higher among not currently married as compared to married (14.3%vs 4.8%, p value=0.03)

Table 4. Association between Depression and various Socio demographic factors

Variables	n	Depression(%)	OR(95%CI)	p value*
Age				
60-75	172	11(8.1%)	Ref	0.19
≥76	30	4(10%)	2.25(0.67,7.6)	
Gender				
Male	104	5(4.8%)	Ref	0.15
Female	98	10(10.2%)	2.25(0.74,6.8)	
Maritalstatus				
Married	146	7(4.8%)	Ref	0.03
Unmarried	56	8(14.3%)	3.31(1.14,9.61)	
Socioeconomicstatus				
Middleandabove	82	6(1.2%)	Ref	0.96
Lower	120	9(7.5%)	1.03(0.35,3.0)	
Education				
Literate	131	9(6.9%)	Ref	0.68
Illiterate	71	6(8.4%)	1.25(0.43,3.67)	

DISCUSSION

Though GMHAT covers all the psychiatric ailments (sleep disorders, eating disorders, phobias, alcohol, and drug misuse) but in our study only anxiety and depression were found.

Prevalence of psychiatric morbidity in rural elderly was found to be 15.8% which was less in comparison to those reported in previous studies from India.[19,20]

In females depression was more common as compared to males and this finding is similar to other studies [21-24] done both nationally and internationally.

Rural elderly having low socioeconomic status according to the modified B G Prasad classification have more psychiatric morbidity as compared to middle and high socio economic class. This finding was found similar to the studies done earlier.[19,25]

Illiterates were found to be more depressed similar to findings of other studies on depression and illiteracy.[26,27]

It is important to educate the community members to remove misconceptions regarding mental illness. It will also give an opportunity to promote community participation in the mental health care and to stimulate efforts towards self-help in the community in identifying symptoms of the mental health illness. Community level awareness will help in eradicating stigmatization of mentally ill patients and protecting their rights. In long-term, this may reduce treatment gaps at the local levels.

Psychiatric morbidity was present more in unmarried, widowed, separated or divorced as compared to individuals who were married. This finding is similar to various other studies done.[28-31]

Limitation of study: This study was carried out in rural field practice area of a Medical college in Western Maharashtra; hence it has limited external validity.

CONCLUSIONS

Psychiatric problems are common among elderly in rural areas.The most common psychiatric disorder was anxiety followed by depression in the study population.Elderly without spouse (widow/divorced/unmarried) face more of mental health issues than those living with their spouse. GMHAT/PC is a tool that is easy to use in a Primary care setting and outreach clinics.

Conflict of interest: None to declare.

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