Psychiatric Co-morbidity in Geriatric Medical Outpatients of Tertiary Care Hospital

Shah S N[1*], Desai N D[2*], Chvavda P D [3**], Sharma E R[4*], Shah S H[5*]

Abstract

Context: Population of elderly is growing rapidly, and this population is at increased risk of physical as well as psychiatric problems. Various studies have reported a high prevalence of psychiatric morbidities in elderly community and elderly patients of different geographical areas.

Aims: To assess psychiatric morbidity and its socio-demographic predictors in geriatric medical outpatients of General Hospital, Gotri.

Methods: Data of 310 patients above ≥65 years of age attending the geriatric clinic in medicine outpatient department were collected in a structured proforma and assessed for any psychiatric illness.

Results: Out of 310 patients, 107 (34.5%) elderly medical outpatients had psychiatric co-morbidity and the most common diagnosis was depression (20%) followed by substance-related disorders (4.9 %), sleep related disorders (3.9%), adjustment disorders (3.2%) and neurocognitive disorders (1.9%). The mean age of the sample was 69.7 years, and males outnumbered females. Patients without spouse due to death, divorce or other reasons had significantly higher rate of psychiatric morbidity than patients living with the spouse (p=0.0222, <0.05). Patients living in a joint family had significantly less prevalence of psychiatric morbidity than patients living in a nuclear family or living alone (p= 0.0385, <0.05).

Conclusion: High prevalence of psychiatric morbidity in geriatric medically ill patients suggests particular attention for the mental health of the elderly medically ill patients by regular screening for common psychiatric comorbidity like depression. High prevalence of psychiatric morbidity in patients without spouse or family focuses attention on the role of social support in geriatric mental health.

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INTRODUCTION

The population of elderly is growing rapidly due to

[1]Assistant Professor, [2]Associate Professor, [3]Assistant Professor, [4]Senior Resident, [5]Professor and Head;

*Department of Psychiatry, **Department of Community Medicine, GMERS, Medical College and General Hospital, Gotri, Vadodara;

Address for Correspondence: Dr.Saurabh N Shah, Department of Psychiatry, GMERS, Medical College and General hospital, Gotri, Vadodara-390021 E-mail: snshah84@gmail.com

improved health care facilities and increase in life expectancy. In India, the population of elderly increased from 77 million in 2001 to 83.6 million in 2006 and is expected to increase to 173 million in 2026. [1, 2] But this group of population is at greater risk of physical as well as psychological problems due to the age-related factors and changes in the social circumstances. Several studies well establish the association between physical and psychological illnesses.[3,4,5] In India, a study in a rural community from West Bengal showed 61% of the geriatric population need psychiatric treatment. [6] Another study on a rural elderly population of

Uttar Pradesh showed 23.7% psychiatric morbidity [7], while studies on urban elderly population from Uttar Pradesh and Maharashtra showed 17.34%, 6.7% psychiatric morbidity respectively.[8, 9] Various hospital-based studies on elderly inpatients from non-psychiatric wards showed a high prevalence of psychiatric illness in which depression was the most common psychiatric comorbidity. [3, 10, 11]

The majority of published studies from North, East, West and South India included elderly population from a community and geriatric hospitalised inpatients, however there are no published study of psychiatric morbidity in geriatric medical outpatients from Gujarat. With this background; this study was conducted to detect psychiatric morbidity in geriatric medical outpat-ients of General Hospital, Gotri, Vadodara, Gujarat.

AIM & OBJECTIVES

1. To assess psychiatric morbidity in geriatric medical outpatients.
2. To know the predictors of psychiatric morbidity among these patients.

METHODOLOGY

This cross-sectional study was carried out at GMERS General Hospital, Gotri, Vadodara during a period of 1 Year. Geriatric Clinic held on every Thursday in Medicine outpatient department along with psychiatric department. Only those patients visiting Geriatric Clinic were invited to participate in the study. Those who agreed were sent to the person associated with the study. After a brief introductory phase, the written informed consent of patient / close relative was obtained in Gujarati. About 310 patients over 65 years of age were included in the study.

Inclusion Criteria

All the Geriatric Patients (of age >/= 65 years) visiting Geriatric Clinic in the Medicine Outpatient Department and who gave written informed consent to participate in the study.

Exclusion Criteria

1) Participants with age group less than 65 years were excluded.

2) Severely medically ill with whom the interview was not possible.

All subjects were assessed by a psychiatrist using Performa including demographic data, detail history with social data, mental status examination and DSM-IV diagnostic criteria for any psychiatric disorder.

Data management and statistical analysis: the data was managed in Microsoft Office Excel. The analysis was done in Epi Info v7.2 developed by Centre for Disease control in Atlanta, Georgia, USA and following results were obtained.

RESULTS

A total of 310 elderly patients (>65yrs) were enrolled and interviewed from Medical Outpatient Department during the study period. Out of 310 patients, 203 (65.5%) had no psychiatric disorder, and 107 (34.5%) were diagnosed to have a psychiatric disorder.

Table 1 shows the association of socio-demographic variables with the psychiatric disorder. In our study, most of the patients were in the age group of 65 to 75 years (90.7%), and the mean age of patients was 69.7 years. Among the 281 patients who were in the age group of 65 to 75 years, 96 (34.16%) had a psychiatric disorder, and among 29 patients who were in the age group above 75 years, about 11 patients (37.93%) had a psychiatric disorder. Males outnumbered females, and out of 194 males, 66 (34.02%) had a psychiatric disorder. Among 116 females, 41(35.34%) had a psychiatric illness. Out of 201 patients coming from the urban area, 65 (32.34%) had a psychiatric disorder, and out of 109 patients coming from the rural area, 42 (38.53%) patients had a psychiatric illness. Out of 222 patients living with the spouse, 68 (30.63%) patients had psychiatric illness, and among 88 patients where the spouse is absent, 39 (44.31) patients had a psychiatric disorder. So, patients living without spouse due to any reason had more prevalence of psychiatric illness than patients living with the spouse, and this difference is statistically significant (p=0.0222, <0.05). Out of 116 patients living in joint family, 32 (27.59%) patients had a psychiatric illness, while out of 165 patients living in nuclear family, 60 (36.36%) patients had a psychiatric disorder and out of 29 patients who were single, 15 (51.72%) patients had a psychiatric disorder. So, patients living in a joint family had less prevalence of psychiatric illness compared to those living in a nuclear family or living alone, which was statistically significant (p= 0.0385,<0.05). A majority of the patients were from lower socio-economic status (79.7%), out of that 90 (36.44%) had a psychiatric disorder, and out of 63 patients from middle socio-economic status, 17 (26.98%) patients had a psychiatric illness.

Table 1: Socio-Demographic Profile

Socio demographic variable	Psychiatric disorder present (n=107)	No psychiatric disorder (n=203)	Total (n=310)
Age (years)			
65 – 75	96 (34.16)	185 (65.84)	281 (90.7)
>75	11 (37.93)	18 (62.07)	29 (9.3)
Mean Age = 69.7 years, SD = 4.69 years			
Chi square = 0.1651, Df=1, p=0.684			
Gender			
Male	66 (34.02)	128 (65.98)	194 (62.6)
Female	41 (35.34)	75 (64.66)	116 (37.4)
Chi square =0.0563, Df=1, p=0.8124			
Residence			
Urban	65 (32.34)	136 (67.66)	201 (64.8)
Rural	42 (38.53)	67 (61.47)	109 (35.2)
Chi square = 1.1996, Df=1, p=0.2734			
Marital status			
Couple	68 (30.63)	154 (69.36)	222 (71.6)
Widow/widower/separated/ single	39 (44.31)	49 (55.68)	88 (28.4)
Chi square =5.2236, Df= 1, p=0.0222*			
Type of family			
Joint	32 (27.59)	84 (72.41)	116 (37.4)
Nuclear	60 (36.36)	105 (63.64)	165 (53.2)
Single	15 (51.72)	14 (48.28)	29 (9.4)
Chi square = 6.5131, Df=2, p=0.0385*			
Socio-economic class (Modified Kuppuswami total score)			
Upper (26 – 29)	0 (0)	0 (0)	0
Upper middle & lower middle (16 – 25 & 11-15)	17 (26.98)	46 (73.02)	63 (20.3)
Upper lower & lower (5 – 10 & <5)	90 (36.44)	157 (63.56)	247 (79.7)
Chi square = 1.9846, Df=2, p=0.1589			

Df= degree of freedom, *p<0.05 statistically significant

Table 2: Psychiatric disorder

DSM-V Diagnosis	Numbers	%
Adjustment disorders	10	3.2
Alcohol-related disorders	3	1.0
Anxiety disorder	2	0.6
Major depressive disorder	62	20.0
Neurocognitive disorder	6	1.9
Sleep-related disorder	12	3.9
Tobacco-related disorder	12	3.9
Overall prevalence of psychiatric morbidity	107	34.5

Table 2 shows patterns of psychiatric disorder. In our study 107 (34.5%) elderly medical outpatients had psychiatry morbidity. The most common diagnosis was Major Depression (20%). Other psychiatric condition like sleep related disorders (3.9%), tobacco related disorders (3.9 %), adjustment disorders (3.2%), Neurocognitive disorders (1.9%), Alcohol-related disorders(1%), Anxiety disorders (0.6%) were also found.

DISCUSSION

This cross-sectional study was conducted to analyse the socio- demographic profile and psychiatric disorders among medical outpatients of a tertiary care teaching hospital. Out of 310 patients, 107 (34.5%) had psychiatric morbidity, and 203 (65.5%) had no psychiatric morbidity. This observation of psychiatric morbidity is less as compared to other studies by Kumar et al. and Sood et al. in a teaching Hospital in which the prevalence of psychiatric morbidity was found to be 40% and 49%, respectively. [3, 10] This difference could be due to the difference in study sample because those studies were conducted in inpatient department of teaching hospital from different demographic regions of India. Community-based studies about psychiatric morbidity in geriatric population from the urban area reported the prevalence of 22.34%,17.3% and 17.3% carried out by Dube, Premrajan et al., and Tiwari et al. respectively. Tiwari et al. reported a prevalence of a psychiatric disorder to be 23.7% in the rural community which was less compared to our study findings. [7, 8, 12, 13] This is due to different sample population and sample size as they were community-based study. However, all these studies are unanimous in reporting the higher prevalence of psychiatric disorders in the elderly population. When we observe findings of community-based studies with hospital-based studies like our study, it clearly indicates psychiatric morbidity may be more in elderly with physical illness.

Depression (20%) was found to be the most common psychiatric illness, which is similar to reported by Kalasapati LK et al., Sood et al. and Ramchandran et al. in their studies. [3, 10, 14] Other conditions like sleep related disorders (3.9%), tobacco related disorders (3.9%), adjustment disorders (3.2%), neurocognitive disorders like dementia (1.9%), Alcohol-related disorders (1%)

and anxiety disorders(0.6%) were also reported in previous studies done in teaching hospital. [3, 10] However substance-related disorder and sleep-related disorder were not reported in such high proportions as compared to neurocognitive disorders and anxiety disorders. The difference could be due to different sample size and sample population. But, it indicates need to screen for these psychiatric problems in geriatric population besides common problems like depression and dementia.

In our study, a higher rate of psychiatric morbidity was found in patients above 75 years of age (37.93%) as compared to patients below 75 years of age (34.16%). This finding was statistically not significant, but it shows an increase in the prevalence of psychiatric morbidity with age similar to study finding by Nandi et al. [6] This can be understood by the fact that ageing and physical illness can affect mental health. However, this finding is not in agreement with study by Kalasapati LK et al, Bouza et al. and Garland et al. [10, 15, 16] The reason could be different sample size and study population. Males outnumbered females, but the rate of psychiatric morbidity was little more in females, compared with males. This is similar to early study findings by Nandi et al., Jain et al, Shaji et al. and Mehta et al. [6, 17, 18, 19] Females in India are exposed to high family burden, and responsibility associated with stress and the presence of stress is associated with psychiatric illness. One interesting finding in our study was a significantly higher rate of psychiatric illness in patients who were single as compared to living with the spouse (p<0.005). This finding is similar to study by Ramchandran et al. who also observed the high prevalence of psychiatric illness among widows than in patients with a spouse. [14] So, the absence of spouse due to death, divorce or other reason can affect mental health. This finding is, in contrast, to study by Kalasapati LK et al, and Parkar where they didn't find any difference due to the difference in study population. [10, 20] There was a significantly higher rate of psychiatric morbidity in patients who were living alone (51.72%) and living in a nuclear family (36.36%) than those who were living in a joint family (p<0.005).Similar findings were reported in a study by Kalasapati LK et al. and Agarwal et al. [10, 21] This lower prevalence of psychiatric disorders among patients from joint family could be due to better social and emotional support that a person gets in a joint family, compared to a nuclear family or living alone. There was a high prevalence of psychiatric illness among patients from the rural area (38.53%) compared to the urban area (32.34%) and high prevalence of psychiatric illness among patients with lower

socioeconomic status (36.44%) compared to middle socioeconomic status (26.98%).These could be due to non-availability of tertiary care medical services in the nearby area for rural patients and poor economic condition for patients from lower socio-economic status which may affect physical as well mental health. However, these findings were statistically not significant, and previous hospital-based studies didn't consider these socio-demographic factors in their study.

Limitations

The study was done on a sample taken from the hospital based population; it may not be representative of general population. Association factors like duration of medical illness, clinical condition, or system of involvement with psychiatric illness were not assessed.

CONCLUSION

High prevalence of psychiatric morbidity in geriatric medically ill patients suggests special attention for the mental health of the elderly medically ill patients by regular screening for common psychiatric comorbidity like depression. High prevalence of psychiatric morbidity in patients without spouse or family focuses attention on the role of social support in geriatric mental health. Based on our study findings, Department of Psychiatry is regularly participating in Geriatric Clinic with Department of Medicine of our Tertiary Care Hospital for better mental and physical health of geriatric patients. There is a need to develop geriatric mental health care services in India.

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REFERENCES

1. Census 2001. New Delhi: Office of Registrar General and Census Commissioner, Government of India; 2001.

2. NISD. Age care in India: National Institute of Social Defense, Ministry of Social Justice and Empowerment, Government of India; 2008.

3. Sood A, Singh P, Gargi P. Psychiatric morbidity in non-psychiatric geriatric inpatients. *Indian J Psychiatry* 2006; 48:56-61.

4. Tirupati SN, Punitha RN. Cognitive decline in elderly medical and surgical inpatients. *Indian J Psychiatry* 2005;47:99-101

5. Singh GP, Chawan BS, Arun P, Sidana A. Geriatric outpatients with psychiatric illness in a teaching hospital setting-A retrospective study. *Indian J Psychiatry* 2004;46:140-3

6. Nandi DN, Banerjee G et al. A Study of Psychiatric morbidity of elderly population of a rural community ion west Bengal. *Indian J Psychiatry* 1997; 39: 122-9.

7. Tiwari SC, Srivatsava G et al. Prevalence of psychiatric morbidity amongst the community dwelling rural older adults in northern India. *Indian J Med Res* 2013; 138: 504-514

8. Tiwari SC, Tripathi RK et al. Prevalence of psychiatric morbidity among urban elderlies: Lucknow elderly study. *Indian J Psychiatry* 2014; 56: 154-60.

9. Seby K, Chaudhury S et al. Prevalence of psychiatric and physical morbidity in an urban geriatric population. *Indian J Psychiatry*, 2011; 53(2):121-127

10. Kalasapati LK, Kar S, Reddy PK. Psychiatric morbidity in geriatric inpatients. *Journal of Dr NTR University of Health Sciences,* 2012; 1(2): 81-85.

11. Abhay K de, Kar P. Psychiatric disorders in medical inpatients. *Indian J Psychiatry* 1998; 40: 73-8.

12. Premrajan KC, Danababu M, Chandrasekar R, et al. Prevalence of Psychiatric morbidity in an urban community of Pondicherry. *Indian J Psychiatry* 1993; 35: 99-102.

13. Dube KC. Study of prevalence and bio-social variables in mental illness in a rural and urban community in Uttar Pradesh, India. *Acute Psychiatr Scand* 1970; 46: 327-32.

14. Ramchandran V, Sarada Menon M et al. Psychiatric disorders in subjects aged over fifty. *Indian J Psychiatry* 1979;22: 193-8.

15. Bouza C, Cuadrado T, Amate JM. Physical disease in Schizophrenia: A population-based analysis in Spain. *BMC Public Health* 2010; 10: 745

16. Garland BJ,Wilder DF, Berkman C. Depression and disability: Reciprocal relation and changes with age. *Int J Geriatr Psychiatry* 1988; 3: 163-79.

17. Jain RK, Aras RY. Depression in Geriatric population in urban slums in Mumbai. *Indian J Public Health* 2007; 44: 34-40.

18. Shaji S, Verghese A, Promodu K, et al. Prevalence of priority psychiatric disorders in a rural area in Kerala. *Indian J Psychiatry* 1995; 37: 91-6.

19. Mehta P, Joseph A, Vereghese A. An epidemiological study of psychiatric disorders in a rural area in Tamil Nadu. *Indian J Psychiatry* 1985; 27: 153-8.

20. Parkar CM. Recent bereavement as a cause of mental illness. *Br J Psychiatry* 1964; 110: 198-204.

21. Agarwal N, Jhingan HP. Life events and depression in elderly. *Indian J Psychiatry* 2002,44;33-40.