Psychiatric Morbidity and Stressful Life Events in Elderly -A Hospital Based Cross-Sectional Study

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ABSTRACT

BACKGROUND

There has been increasing prevalence of mental health problems in the elderly, with stressful life events being a precipitating factor and hence impairing the quality of life.

METHODS

263 patients of age 60 years and above attending psychiatry outpatient department and admitted in medical wards were included in the study. Patients with MMSE score ≥24 were included in the study. MINI PLUS was used to assess the psychiatric morbidity. Life events were assessed by PSLES. Statistical analysis was done using SPSS. Descriptive statistics and chi-square test were used for analysis.

RESULTS

Out of 263 patients, 207 (78.7%) were in the age group 60-69 yrs. The common psychiatric morbidity was found to be depression (43%), substance use disorders (16.7%) and anxiety spectrum disorders (15.5%). The most common precipitating stressful life events were family conflict (9.5%), son or daughter leaving home (8.7%), death of spouse (6.5%) and financial loss (6.5%). The common psychiatric morbidity precipitated by stressful life events were depression (44.4%) and substance use (18.2%) followed by anxiety and stress related disorders (22.2%).

CONCLUSIONS

The above study emphasizes that psychiatric morbidity is common in the geriatric population, of which depression is the most common mental health problem. Stressful life events can lead to mental health problems. These factors impair the quality of life of the elderly. Hence it necessitates psychiatrists and physicians to recognize mental health problems at the earliest and provide the necessary support to improve the quality of life.

KEY WORDS

Psychiatric Morbidity, Stressful Life Events, Geriatric Population

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BACKGROUND

As per United Nations, a country is considered as 'ageing', when the proportion of people aged more than 60 years reaches 7%. Accordingly, India is considered as an ageing nation and in the coming years it will result in 316 million elderly persons by 2050.[1] This emphasizes the importance to study the life events before the onset of psychiatric illness in elderly. Most hospitals in the country do not have specialized facilities to cater to the needs of geriatric population. It is found that lack of priority given to the healthcare needs of the elderly is the major factor for the low level of public awareness about mental health problems of old age.[2] The feeling of loneliness along with the natural age-related incapacity in the physical and physiological functioning make the elderly more prone to psychological disturbances.[3] Hence, dependency is common among elderly people and many may need assistance in their activities of daily living. Katon and Sullivan et al. (1990)also found that 6% of the patients in primary care setting and 11% of medical in-patients had major depression, compared with 3% prevalence in general population.[4] As perKatz and Alexopoules et al. (1996),many of the depressive disorders remain undiagnosed and untreated as the general population considers it to be a normal part of ageing.[5] Uwake et al. (2000) who evaluated all the patients aged more than 60 years admitted in non-psychiatric wards in a teaching hospital and found that 45.3% of the patients had psychiatric illness, with depression being the commonest, followed by organic disorders, adjustment disorder, and generalized anxiety disorder. But, only 2.8% of the mental disorders could be recognized by the physicians.[6] This emphasizes the need for psychiatric assessment to be an integral part of complete health assessment of geriatric patients. Depression in older men frequently presents with anxious or irritable mood and restlessness or agitation (Lenze et al., 2000).[7] The elderly are at a higher risk for suicide than other groups and is associated with severity of depressive illness, Henceit is essential to ask both about affective symptoms and actual suicidal ideation (Raue et al., 2001).[8]

A single institutional retrospective study of 3 years was conducted by Singh GP et al. (2004). Results showed that mood disorders (48.7%), neurotic, stress-related and somatoform disorders (15.47%) were the most common psychiatric disorders in these patients. Medical comorbidity was a significant finding of this study as physical diagnosis was present in most of these patients (56.35%).[9]

The age-specific suicide rates increase with advanced age. Hanging and poisoning were found to be the common methods of suicide by elderly (Abraham et al., 2005).[10] Similar finding was also found in the study by Behera et al. (2007).[11] Depression is the leading cause for suicide, and nearly two-thirds of depressed elderly had suicide ideation (Venkoba Rao and Madhavan et al., 1983)[12] and the most important predictor was lack of family and social integration rather than 'living alone'. Ethical, religious and familial factors [described as suicide counters by Venkoba Rao (1985)] may prevent the elderly from attempting suicide.[13] Suicides in elderly are often associated with high intent, long planning and highly lethal methods.

With respect to substance use among rural elderly, the prevalence of smoking is 51–71.8 % among males and 5–41 % among females (Goswami et al., 2005; Jotheeswaran et al., 2010; Shaji et al., 2002).[14,15,16] According to a large-scale population study, the current use of alcohol varied between 10 and 28 % among 50 years plus age groups and majority were current heavy users (Mohan et al. 2002; Gupta et al. 2003).[17,18] Recent studies from Lucknow which are supported by Indian Council of Medical Research (ICMR), found that 17.3 % of rural elderly and 23.5 % of urban elderly suffer from a psychiatric illness (Tiwari et al., 2012; Seby et al., 2011).[19,20] Depression was common among elderly who visit the general health settings and those staying in old age homes (Dey et al. 2001; Tiwari et al. 2012 Ganguli et al. 1999).[21,19,22] Studies show that the prevalence rates of depression in elderly are considerably higher than the general population rates in India (Reddy and Chandrashekhar et al., 1998; Poongothai et al., 2009).[23,24] According to Barua et al (2010) one of the two non-modifiable risk factors for elderly depression are female gender and advanced age. Other factors known to increase the likelihood of depression are illiteracy, financial difficulties, living alone, low social/emotional support, widowhood, economic or physical dependency and presence of chronic physical illnesses or disability of any kind.[25] Hence these factors are considered as stressful life events capable of precipitating psychiatric illness. A comparative study by Tiple et al (2006) found that the people living in old age homes had better supportive care than those living with the families.[26] According to Om Prakash et al (2007) out of one hundred medically ill elderly (>60 years) patients attending the Geriatric Clinic at Bikaner (North India), 18% subjects had depression and 11% had other mental disorders. Those having mental disorders had suffered more recent stressful life events. In this study, the most reported stressful life events were conflicts in family (16%); unemployment of self or children (9%). Other reported life events were illness of self (6%) or family members (5%) and death of family members (5%) or close relatives (4%). Also, hypertension was the most commonly reported physical diagnosis (50%), other specific medical illnesses were osteoarthritis (15%), diabetes (13%) and constipation (8%).

A cross-sectional study was done to assess depression over 473 elderly persons from an urban slum in Bangalore (2014). The result showed that the prevalence of depression to be 37.8 %. Also multivariate analysis of life events revealed that unemployment (self or children) was commonest stressful life event, followed by illness of self, female gender, conflicts in family, and marriage of children or grandchildren as independent risk factors.[27] The effect of socioeconomic parameters with respect to life events experienced by the elderly depressed is not reported much in the literature. There is possibility that those with low 'per capita income' are more prone to experience life events.

As per Venkoba Rao et al (1981) stressors related to 'bereavement', 'occupation' and 'family and social relationships' in the 2 years preceding onset of depression were significant precipitating factors. Living in joint families need not guarantee a good social integration, as old ones in family can be 'lonely islands'.[28]

Niruj et al (2002) following analysis of the study found that most patients had mild (48.4%) or moderate (41.9%) depression and also importantly found that the severity of depression was not associated with significantly higher life events. This study emphasizes that the life events are associated with occurrence of depression and not its severity, which is in consonance with the existing literature.[29]

We wanted to assess the geriatric psychiatric morbidity and the presence of stressful life events in elderly with psychiatric morbidity.

METHODS

The study was conducted after obtaining ethical committee clearance which was conducted in the institute. The study will be done on those patients who agrees upon the informed consent provided to them. A cross-sectional study of geriatric outpatients of department of psychiatry and inpatients of medical wards of GMC, Kannur were done. The study period was from March 2018 to February 2019. A consecutive sample of 334 patients who satisfy the inclusion criteria was recruited for the study. (sample size is calculated using formula: 4 pq/d^2 with an assumed prevalence of 29.8%[26] depression in geriatric population and a precision factor of 5, p-prevalence, q=100-p and d is precision factor). The inclusion criteria were patients of either gender aged 60 years or above attending psychiatric OPD and those hospitalized in wards of GMC, Kannur, those patients willing to give written informed consent, those with Mini Mental State Examination (MMSE)≥24[30]. The exclusion criteria included were those not willing to give consent, patients unable to cooperate due to severe visual, hearing, language and cognitive impairment, dementia, delirium and patients with already diagnosed psychiatric illness. MINI plus[31] was used for psychiatric diagnosis. Stressful life events were assessed using PSLES.[32]

Statistical Analysis

Statistical analysis was done using SPSS version. Descriptive statistic tools will be used to assess mean, median, standard deviation, percentage. Categorical variables will be analyzed using Chi-square test. P value <0.05 will be considered clinically significant. Association of stressful life events with psychiatric morbidity was studied in the above sample. Ethical clearance was obtained for the study.

RESULTS

Among the study population, 50.6% (N=133) were males and 49.4% (N=130) were females. 78.7% belonged to age group 60-69, 18.6% in 70-79 age group, and 2.7% belonged to more than 80 age group. 85.2% (N=224) had a primary level of education. 65% (N=171) were unemployed and 59.3% (N=156) belonged to lower middle socioeconomic class. 80.2% 9(N=211) were living with spouse. 85.9% (N=226) were married and 12.9% (N=34) were widowed. In the study population, 30.8% (N=81) had a family history of psychiatric illness, 15.6% (N=44) had a family history of suicide. Comorbid physical illness was found in 20.2% (N=53).

Sex	Count	Percent
Male	133	50.6
Female	130	49.4
Occupation		
Unemployed	171	65.0
Skilled	65	24.7
Semiskilled	18	6.9
Professional	9	3.4
Religion		
Hindu	128	48.7
Christian	77	29.3
Others	58	22
Marital status		
Single	3	1.1
Married	226	86
Widowed	34	12.9
Family type		
Nuclear	235	89.3
Joint	21	8.0
Extended	7	2.7
Background		
Rural	78	29.7
Semi urban	185	70.3

Table 1. Sociodemographic Data

The most common psychiatric diagnosis was found to be depression (43%, N=113). Second common was substance use disorder (16.7%, N=44) which was divided as substance dependence and abuse. Substance most commonly used was nicotine and alcohol, of which nicotine was common. Third common was delusional disorder (10.3%, N=27), followed by adjustment disorder (9.5%, N=25), generalized anxiety disorder (8.7%, N=23) and mixed anxiety and depressive disorder (6.8%, N=18). However, when generalized anxiety disorder and mixed anxiety and depressive disorder were clubbed together under anxiety disorder (15.5%, N=41) as both belong to the same spectrum, it becomes the second common psychiatric morbidity.

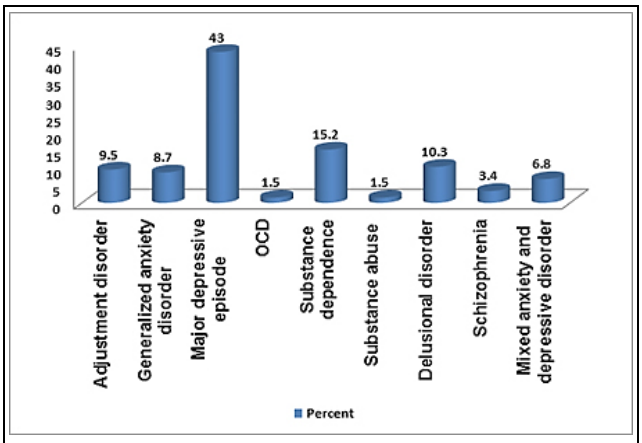

Figure 1. Percentage Distribution of the Sample According to Psychiatric Morbidity

Analysing psychiatric morbidity based on age group, depression was found to be most common among 60-69 age group, anxiety and stress related disorder (anxiety disorder and adjustment disorder were taken together for concise presentation of data and both disorders comes under the category of neurotic and stress related disorders) being common among 70-79 age group and depression being common among those more than 80 age group. Statistical

significance was obtained showing that age has an association with development of psychiatric disorders.

Psychiatric Morbidity	60 – 69		70 – 79		>=80		χ^2	P
	Count	%	Count	%	Count	%		
Anxiety and stress related disorder	42	20.3	24.0	49.0	0	0.0	30.43	p<0.01
Major depressive episode	91	44.0	15.0	30.6	7	100.0		
Substance use	42	20.3	2.0	4.1	0	0.0		
Others	32	15.4	8.0	16.3	0	0.0		

Table 2. Psychiatric Morbidity in Different Age Groups

Using PSLE, stressful life events that occurred anytime 1 yr. prior to the development of mental health problems were assessed. The most common stressful life event was found to be family conflict (9.5%), second was son or daughter leaving home (8.7%) and third was financial problems and death of spouse (6.5%).

Family and Social Events	Count	Percent
Excessive alcohol use by family members	6	2.3
Son or daughter leaving home	23	8.7
Prophecy of astrologer or palmist	2	0.8
Lack of son	3	1.1
Family conflict	25	9.5
Change of residence	4	1.5
Financial events		
Financial	Count	Percent
Financial loss or problems	17	6.5
Robbery or theft	1	0.4
Bereavement events		
Bereavement	Count	Percent
Death of spouse	17	6.5
Death of dose family member	5	1.9

Table 3. Stressful Life Events Based on PSLE

In the present population study, 37.6% of the population experienced a stressful life event in the proceeding 1 yr. An attempt was made to study the relationship of life events in precipitating mental health problems. It was found that depression (44.4%) was the most common psychiatric morbidity precipitated by life events, followed by anxiety and stress related disorders (22.2%) (Anxiety disorder and adjustment disorder were clubbed together) and substance use disorders (18.2%). No statistical significance was obtained ($p<0.05$).

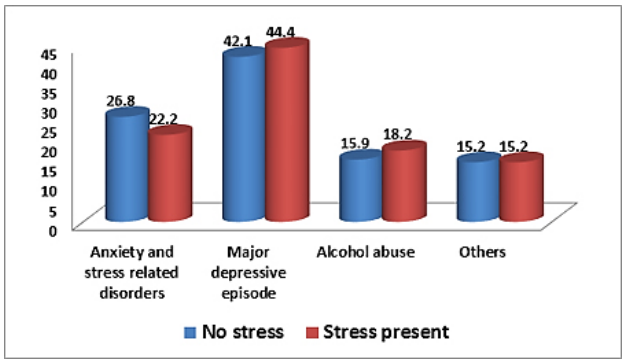

Figure 2. Comparison of Stressful Life Events Based on Psychiatric Morbidity

DISCUSSION

Geriatric Psychiatric Morbidity

In our study, maximum number of patients were in the age group of 60-69, followed by 70-79 and those more than 80. Depression was found to be the most common in 60-69 age group, followed by an equal prevalence of anxiety disorders and substance use disorders. While anxiety and stress related disorder was found to be most common among age group 70-79, and depression in those more than 80 yrs. with statistical significance. As age advances, various factors like living conditions, financial difficulties, loneliness, comorbid physical illness and decreased ambulation all contribute to the development of psychiatric morbidity. As per our study, it was found that depression (43%) was the most common psychiatric morbidity in elderly population. Second common was found to be substance use disorder (16.7%) followed by anxiety disorder (15.5%), when generalized anxiety disorder and mixed anxiety and depressive disorder were taken together. This corroborates with other western and Indian studies. In Schuckit et al (1975)[33] who conducted a hospital-based study in those above 65 yrs. found that depression and alcohol-related disorders were predominant. Katon and Sullivan et al (1990) on analysing found that 11% of medical in-patients had depression compared with 3% prevalence in general population.[4] This could be because of associated physical comorbidity which can precipitate depression. Uwake et al (2000),[6] who evaluated patients aged more than 60 years admitted in non-psychiatric wards in a teaching hospital, found that 45.3% of the patients had psychiatric illness, with depression and anxiety disorders being common. But only 2.8% of it were recognized by physicians and sought to treatment. Similarly, in our study, it was found that medical in-patients with psychiatric morbidity were not adequately diagnosed and treated.

Among Indian studies, those of Tiwari and Srivastava et al (1998)[34], found psychiatric disorders to be prevalent in geriatric population (42.21%) with depression and anxiety being common. Similarly, Dey et al (2010), Tiwari et al (2012), Ganguli et al (1999), also found depression to be the most common psychiatric morbidity.[21,19,22] In Prasad KM et al (1996)study found non organic psychoses to be common.[35] However, according to Neethu et al (2016) organic causes like dementia, delirium was found to be common psychiatric disorder followed by mood disorder and schizophrenia.[36] But our study does not correlate with this as organic conditions like delirium and dementia were excluded from the study. As per Silva et al (2002)[37] and Manhas et al (2019)[38] also concluded that depression was the commonest psychiatric morbidity.

Stressful Life Events and Geriatric Psychiatric Morbidity

The most common stressful life event was found to be family conflicts (9.5%, N=25). Second common being son or daughter leaving home (8.7%, N=23). Third common being death of spouse and financial problems (6.5%, N=17). According to Om Prakash et al (2007)[9] 18% subjects had depression and 11% had other mental disorders. In the above study, those with mental disorders had suffered more recent stressful life events, the most reported being conflicts in family (16%) which correlates with our study as well. The second most common life event associated was unemployment in some of the studies, though such findings were not obtained in our study. Since a majority of our study group was living with spouse (80.2% N=211), this could correlate why in our study son or daughter leaving home was the second most common cause. According to Finlay Jones et

al (1981) severe loss was a causal agent in the onset of depressive disorder and severe danger was a precipitating factor in the onset of anxiety states in the sample.[39] The relationship between recent loss and depression has been validated in other studies as well. (Parkes, 1964; Sethi, 1964; Paykel et al., 1969).[40,41] In our study significant loss in the form of death of spouse was found to be third most common. This could be because the number of widowed people in the study population is 34 (12.9%), among whom the life event occurring in the preceding year was 6.5% (N=17). In our study, majority of the stressful life event was associated with depression (44.4%), followed by anxiety and stress related disorders (19.2%, N=23) and substance use disorders (18.2%, N=18) which corroborates with above studies with respect to depression being the most common psychiatric disorder precipitated by life event.

Limitations

As it is a hospital based cross-sectional study, the results cannot be generalised. This study had a smaller sample size. Absence of a control group in the study was a drawback. All patients were screened in a one-stage interview. Coping strategies and resilience of various individuals which may affect the response to stressful life events which again may be coloured by personality traits were not analysed. Patients with cognitive impairment like dementia were not included in the study. Stressful life events of previous 1 yr. were considered for the study.

CONCLUSIONS

The development of health services has definitely contributed to life expectancy of the elderly. This increases the risk and prevalence of psychiatric morbidity in them. Elderly people are at an increased need of dependent care, social support, medical care, safety and ambulatory measures. Hence this population is at risk of developing mental health problems, often precipitated by life events. This in turn affects the quality of life of the elderly which further deteriorates their baseline functioning. Hence this study tries to emphasize the need for increasing awareness of mental health problems in the public, caretakers and medical professionals as well as early recognition and management of mental health problems in the elderly so as to improve the quality of life.

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