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STUDY OF SOCIOECONOMIC FACTORS IN RELATION TO DEPRESSION AMONG ELDERLY PEOPLE LIVING IN RURAL AREA OF ANDHRA PRADESH

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ABSTRACT

Background: The world population has been experiencing significant ageing. With the increase in life expectancy, rapidly changing social and physical environment, breaking of traditional protective measures, increase in morbidity due to chronic non communicable disease will lead to increased psychological disorders like depression. This study was conducted to find out the prevalence of depression district and its relation to socio demographic factors of the elderly population..

Materials and methods: A Cross sectional community based study was undertaken for a period of six months (Jan-June 2014) in the villages of V. Kota and Shanthipuram mandals of Chittoor district in Andhra Pradesh state. Data was collected regarding socio-demographic profile, availing of old age pension, depression using GDS score & analyzed using SPSS software.

Results: 418 elderly people were included in the study. The overall prevelance of depression was around 44.1%.Statistically significant association found between depression and socio demographic factors like aged more than 80 year, those who are separated/widowed and belonging to low socio economic status.

Conclusions: higher prevalence of depression during later years of life, those who are separated, loss of spouse and belonging to lower socio economic status and these findings were statistically significant.

Key words: Depression, Dependency, rural, Socio demographic.

INTRODUCTION:

The world population has been experiencing significant ageing—the process that results in rising proportions of older persons in the total population—since the mid-twentieth century. The number of older persons is 841 million in 2013, which is four times higher than the 202 million that lived in 1950 and the older population will almost triple by 2050, when it is expected to surpass the two billion mark[1]. In India, the projected population of age 60 and above for the year 2026 will be 173.2 millions, which accounts to 12.4 % of the total population.[2]

With the increase in life expectancy, rapidly changing social and physical environment, breaking of traditional protective measures, increase in morbidity due to chronic non communicable disease will lead to increased psychological disorders like depression. This is often undiagnosed and untreated in the elderly[3].

Depression can worsen underlying medical disorders, as it is commonly associated with many chronic medical illnesses[4].As modifying the associated risk factors is directly related to the prevalence and prognosis of geriatric depression, identi-

fying these factors is necessary.[5] Apart from other causes like social, cultural and organic factors, economic dependency is also an important cause of depression.[6]

As studies conducted in this regard are limited, this study is intended to find out the prevalence of depression in a rural area of Chittoor district, and its relation to socio demographic factors of the elderly population.

MATERIALS AND METHODS

A Cross sectional community based study was undertaken for a period of six months (Jan-June 2014) in the villages of V. kota and Shanthipuram mandals of Chittoor district in Andhra Pradesh state. The sample size was calculated on the basis of study done in rural Andhra Pradesh (which has found the overall prevalence of depression among old age to be around 52.5%[7]) and by applying the formula $4pq/d^2$ with 10% allowable error was 327.However a desired sample of 418 elderly people were considered as adequate for the study.

Selection of subjects was done by multistage sampling design. The gram panchayaths in the above said two mandals were listed and in the first stage, one gram panchayath in Kuppam mandal and two in the Gudipalli mandal were selected randomly. Thus Jounipalle, Thattisonneganipalle and Karlagatta gram panchayaths were selected from V. kota and Shanthipuram mandals respectively. In the second stage, the revenue villages in the each of the gram panchayats were listed and two villages from each gram panchayat were randomly selected. Nakkanapallepalli, egupalle from Jounipalle gram panchayat and Ramanandapuram, Krishnapalle from Thattisonneganipalle gram panchayaht and Thammiganipalle,Budugindlu villages from Karlagatta gram panchayats were included. Approximately 70 individuals aged 60 years & above were selected from each village for the study by house to house visit. After reaching the village, the first house on the right hand side is visited and subsequently the remaining households were followed by following the left hand method, until the target number of 70 individuals is reached. Only one individual was included from each household. If any individual was not present at the time of first visit, a repeat visit was made to the house with prior information to the household members. Households were excluded when the elderly persons were not available even after three visits to the house.

Data was collected by using a semi structured and pretested questionnaire after obtaining informed consent from each participant explaining that the information will be kept confidential. All participants were assessed face to face and socio demographic data were obtained in the same interview. The BG modified Prasad scale[8] was used to classify socioeconomic status.

Geriatric Depression Scale (GDS-15)[9] was used to assess depression. Scores of 0–4 were considered normal; 5–8 indicated mild depression; 9–11 moderate depression and 12–15 severe depression. The GDS -15 questionnaire was translated to local (Telugu) language and back translated.A pilot study was done among elderly people and validation of the questionnaire has been done through Test- Retest Reliability after pilot study. Cronbach's Alpha was computed and reliability co-efficient of 0.76 was obtained. Old age pension details like availing, reasons for not availing and economic dependency were included. Statistical analysis was performed using SPSS version 19. Approval for the study was obtained from the PESIMSR ethics committee.

RESULTS

A total of 418 elderly people were interviewed from the six villages. 221 were males and 197 were females. Majority of them were in the age group of 60-69 years group, 52.8% were males, 59.8% were married and 35.1% were illiterate.60% of study subjects were working and earning, more than two third belonged to lower socio economic status.The prevalence of depression among the studied population was 44.1%, with mild and severe forms being 26.8% and 17.3 % respectively (Table 1).

Table 1: Distribution of study population according to GDS-15 scores (n = 418)

GDS* score	Elderly people (n=418) (%)
Absent	234 (55.9)
Mild	112 (26.8)
Severe	72 (17.3)

*GDS=Geriatric Depression Scale

Table 2: Association between depression and dependency factors

Dependency Factors	Depression		p Value
	Present (%)	Absent (%)	
Availing old age pension			
Yes	127 (40.9)	183 (50.1)	0.03
No	57 (52.8)	51 (47.2)	
Dependency on Family members			
Independent	79 (35.2)	145 (64.8)	0.001
Partial dependent	51 (51)	49 (49)	
Totally dependent	54 (57.4)	40 (42.6)	

Almost three quarter (74.1%) i.e., 310 study participants were availing old age pension from the government (Table 2). More than half of those who

were not availing old age pension were depressed when compared to those who were availing and this association was statistically significant($p<0.03$). 194 study subjects were economically dependent on family members either totally or partially.57.4% of those who were totally dependent and 51% of partially dependent were depressed indication statistically significant association ($p<0.001$).

Association between various sociodemographic factors and depression is depicted in Table 3. Majority (62.8%) of the study participants who were depressed when compared to other age groups (49.3% in 70-79 yrs and 40.6% in 60-69yrs).Depression was more common among unmarried/separated and those who belong to lower socioeconomic status. These differences were found to be statistically significant. However effect of gender, education, and work status of the subjects on depression was not statistically significant.

Table 3: Association between depression and socio demographic factors

Socio demographic factors	Depression		P value
	Present (n=184)	Absent (n=184)	
Age (years)			
60-69	126 (40.6)	184 (59.4)	0.02
70-79	36 (49.3)	37 (50.7)	
≥80	22 (62.8)	13 (37.2)	
Gender			
Male	89 (40.2)	132 (59.8)	0.12
Female	95 (48.2)	102 (51.8)	
Marital status			
Married	95 (38)	155 (72)	0.00
Unmarried/Separated	89 (52.9)	79 (47.1)	
Education			
Illiterate	68 (46.2)	79(53.8)	0.39
Primary	45 (45.4)	54 (54.6)	
Higher Secondary & above	65 (39.1)	101(60.9)	
Occupation			
Working & earning	113 (45)	138 (55)	0.6
At home	71 (42.5)	96(57.5)	
Socioeconomic status			
Lower	50 (47.6)	55(53.4)	0.000
Upper lower	89 (47.2)	90 (52.8)	
Lower middle	22 (39.3)	34 (60.7)	
Upper middle	18 (25.7)	52(74.3)	
Upper	5 (62.5)	3 (37.5)	

Figure in parenthesis indicate percentage

DISCUSSION

Geriatric population especially living in rural areas represents a vulnerable group because of lack of resources and agriculture is the main source of income. Inability to work, loss of spouse will eventually force them to dependent either on family members or assistance from the government agencies in the form of social security schemes. The overall prevalence of depression in our study was 44.1% which is comparable to various studies done in India reported the prevalence of depression ranging from 6 to 58%[10-12].

The Prevalence of depression was more among ≥ 80 years of age which is similar to study by Swarnalatha (54.3%)[7]. It was more commonly observed among females which is comparable to studies by Pracheth R et al[13].39% and Udayar SE (47.5%)[14]. However it was not statistically significant due to variations in sample size. Females in rural areas are still continued to be neglected in terms of making financial decisions in the family. This forces them to dependent on their health needs and other aspects of daily living on family members eventually leading to depression in later years of life.

In our study we found that a positive association between lower socioeconomic status and depression is existed which was similar studies done by Ramchandra et al[15] and Stanley A et al[16].This might be due to lack of awareness or delay in getting the social assistance in the form of old age pension.

Factors like loss or separation from the spouse will also leads to the prevalence of depression. Our study findings were consistent with the study done in West Bengal[17] where significantly higher prevalence of depression was reported among widowed persons (61.9% vs. 43.2% in married). Reasons may be due to the loneliness having an impact on the mental health which in turn leading to increased feeling of depression and worthlessness, etc.

CONCLUSION

Our study concludes that there is higher prevalence of depression during later years of life, those who are separated, loss of spouse and belonging to lower socio economic status and these findings were statistically significant.

Population ageing is considered as an important emerging demographic phenomenon in India, emphasizing on strong multi-sectoral policy and programme response to deal with many significant implications on the elderly in particular those who are living in rural areas.

Economic insecurity and lack of family support being the root cause for many psychological disorders like depression there is a need for multi-pronged strategy in the form of assistance from the governments, community health programmes in order to create awareness among family members or caretakers about the supportive care to be given for elderly people.

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