



Original Research Article

## A Study of Economic Dependency and Its Relation to Depression among Elderly People in Rural Area of Chittoor District, Andhra Pradesh

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### ABSTRACT

**Introduction:** One of the main reasons for increased psychiatric disorders like depression among older people is the economic dependency apart from other social, cultural and organic causes. In old age person faces loss of income, retirement or failure in ventures and plans can lead to depression. This study was done to find the prevalence of economic dependency and its relation to depression among elder people in rural area.

**Materials & Methods:** A Cross sectional study was undertaken in the villages of V. kota mandal, Chittoor district, Andhra Pradesh. The Study duration was from Jan – June 2014. 48 among 60 villages which are covered under RHTC of PESIMSR, Kuppam were selected randomly and elderly people (60 yrs and above ) who are permanent residents were interviewed after obtaining written informed consent. A pretested questionnaire was used to collect socio demographic information. Geriatric Depression Score (GDS)-15 scale were used to assess depression. Statistical analysis was performed using SPSS software.

**Results:** A total of 532 elderly people were interviewed from 48 villages. 276 are males and 256 are females. With respect to economic dependence, 131(24.62%) were totally dependent and 130 (24.43%) were partially dependent on family members or others. Among the 261 economically dependent 68% were depressed.

**Conclusions:** As the economic insecurity is one of the main reasons for psychological disorders like depression, the need of the hour is multipronged strategy not only in the form of assistance from the governments, but also in the form of creating awareness among caretakers about supportive care.

**Key words:** elderly, nutritional status, depression, MNA, GDS.

### INTRODUCTION

A major demographic issue for India in the 21st century is population ageing, with wide implications for economy and society in general. With the rapid changes in demographic indicators over the last few decades, it is certain that India will move from being a young country to an old

country over the next few decades. Presently, India has around 90 million elderly and by 2050, the number is expected to increase to 315 million, constituting 20 per cent of the total population.

The Global Report on Ageing in the 21st Century (2012) reinforces the observations made in India that there is

multiple discrimination experienced by older persons, particularly older women, including in access to jobs and health care, subjection to abuse, denial of the right to own and inherit property, and lack of basic minimum income and social security. Further, the majority of the people at 60+ in India are socially backward and economically poor. In addition, there is also extreme heterogeneity in the demographic transition across states, resulting in vast differences in the demographic scenario across social, economic and spatial groups. <sup>[1]</sup>

One of the main reasons for increased morbidity among ageing population is especially psychiatric disorders like depression is the economic dependency apart from other social, cultural and organic causes. <sup>[1]</sup>

Limited studies have been done in India to know about the economic dependency in older people and its relation to depression; hence an effort is made to conduct the study in the rural area of Andhra Pradesh.

## **MATERIALS AND METHODS**

A Cross sectional study was undertaken for a period of six months (Jan-June 2014) in the villages of V. kota mandal of Chittoor district in Andhra Pradesh state. Based on the study done in rural Andhra Pradesh which has found the overall prevalence of depression due to economic insecurity among old age to be around 52.5%, <sup>[3]</sup> the sample size obtained by using the following formula  $4pq/d^2$  with 10% allowable error was 327. However a desired sample of 533 elderly people were considered as adequate for the study.

A multistage sampling design was used in the study (Fig 1). The rural field practice area of PESIMSR belongs to Kuppam and Gudipalli mandals of Chittoor district. The gram panchayats in the two mandals were listed and in the first stage,

one gram panchayat in Kuppam mandal and two in the Gudipalli mandal were selected randomly. Thus Samaguttapalli, Kanchi Bandarlapalli and Settipalli gram panchayats were selected from Kuppam and Gudipalli 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. Vanaguttapalli, Vendugampalli from Samaguttapalli gram panchayat and Kuppuganipalli, Peddabadavanawada from Kanchi Bandarlapalli gram panchayat and Joganur, Peddashettipalli villages from Settipalli gram panchayats were included.

Approximately 62 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 left hand side is visited and subsequently the remaining households were followed by following the left hand method, until the target number of 62 individuals is reached. Only one individual from each household was included in the study. 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 <sup>[4]</sup> was used to classify socioeconomic status. Geriatric Depression Scale (GDS-15) <sup>[5]</sup> 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. <sup>[5]</sup> 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 533 older people were included in the study. The mean age participants were  $67.29 \pm 7.52$  years. Majority of them were males (51.8%) followed by females (48.2%). 76.2% subjects were married and living with spouse and family, 21.8% were separated and only 2.1% were unmarried. 39.8% of the study population were educated upto middle school or above, 25.1% completed primary school & 35.1% were illiterate. About 60.2% of older populations were in the working & earning group.

With regard to socio economic status more than two third (68.3%) of participants were belonged to lower and upper lower class. Figure 1 depicts that 49.2% of the respondents were financially dependent (partial/total) either on family members or assistance from the government. Even though all of them were eligible for availing economic assistance from government under the Old Age Pension Scheme only 402 elder persons were availing it. Various reasons for not availing were delay from the government, not applied for assistance etc.

Table 1: Distribution of GDS-15 scores (n = 533)

Depression per GDS score	No.	%
Absent	308	57.8
Mild	144	27
Severe	81	15.2
Total	533	100

Our study also found that majority of the individuals was spending their income for purchasing medicines (50.8%) and for household expenses. The overall prevalence of depression was (Table 1) 42.2% with

majority of them had mild depression followed by severe form.

Table 2 displays associations between economic dependency and depression. Almost half of the subjects who were not availing Old Age Pension had depression and it was more common in those individuals who were financially dependent either partial or total when compared financially independent subjects. Both associations were statistically significant.

Table 2: Association between economic dependency and depression.

Availing Old Age pension	Depression		$\chi^2$	p value
	present	absent		
Availing	158	244	5.6	0.017
Not Availing	67	64		
Total	225	308		
Dependency	present		17.5	0.001
	absent			
Independent	65	206		
Partial Dependent	80	52		
Totally Dependent	80	50		
Total	225	308		

Table3: Association between depression and socio demographic factors

Age (years)	Depression		$\chi^2$	p value
	Present	Absent		
<60-69	163	242	3.6	0.15
70-79	48	46		
$\geq 80$	14	20		
Gender				
Male	110	166	1.3	0.25
Female	115	142		
Marital status				
Married	93	233	64.5	0.00
Unmarried/Separated	132	75		
Education				
Illiterate	84	103	4.1	0.25
Primary	62	72		
Higher Secondary	76	125		
Degree & more	3	8		
Occupation				
Working & earning	144	177	2.31	0.12
At home	81	131		
Socioeconomic status				
Lower	64	71	24.8	0.000
Upper lower	115	114		
Lower middle	24	49		
Upper middle	18	72		
Upper	4	2		
Total	225	308		

The associations between sociodemographic parameters and depression have been shown in table 3.

Depression was more common in separated/unmarried women (63.7%) than married (39.9%) and in the lower (47.4%) and upper lower socioeconomic class (50.2%) when compared to participants

belonging to other higher class. Both associations were statistically significant. No statistical significance was observed in relation to age, gender, educational level or occupation.

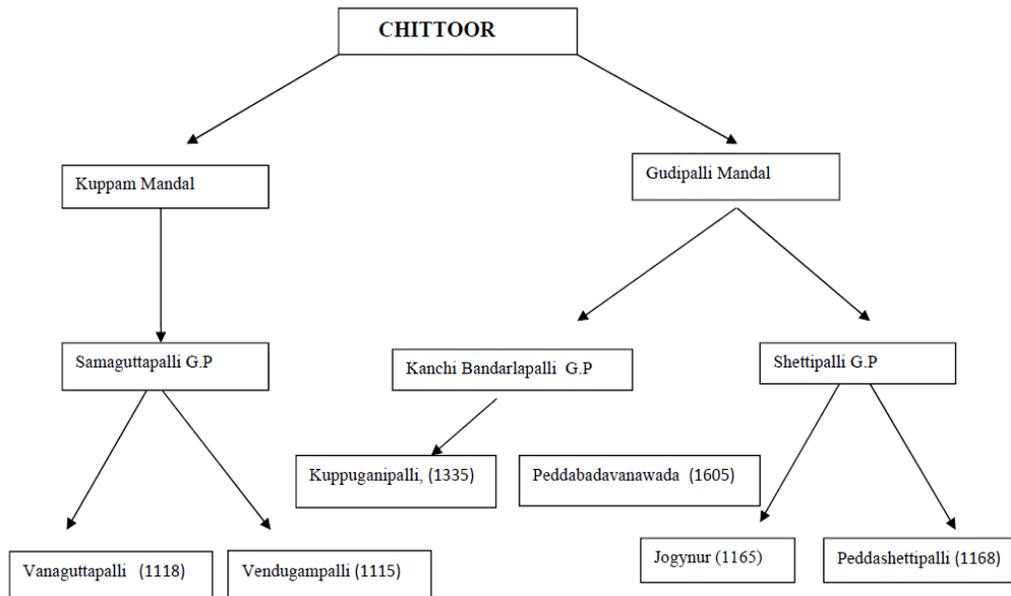
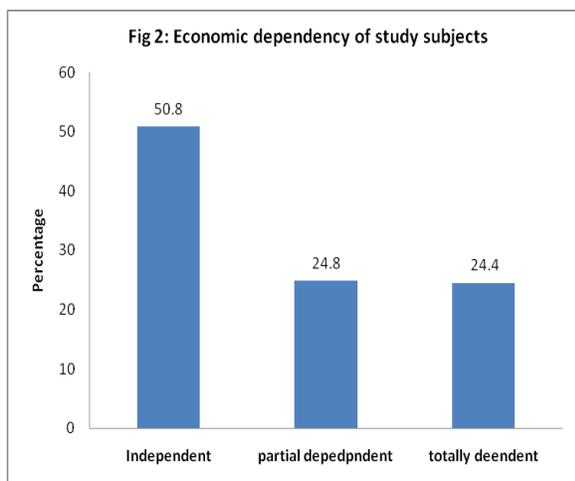


Fig:1 Selection of villages by multistage random sampling method.



## DISCUSSION

Elders living in rural areas represent a risk group because rural areas lack resources and with agriculture being the main occupation, there is neither income security nor any systematic provision for old

age. In old age person faces loss of income, retirement, failure in ventures and plans can lead to depression. Most of the elderly people economically depend on their children, other family members or social security schemes by the governments such as old age pension schemes.

Higher proportion of depression was found in elderly persons who were totally or partially dependent when compared to a study done in Karnataka among elder people to know about the prevalence of depression and associated risk factors where 41.2% of elderly from partially dependent and 39.8% from totally dependent had depression. [1]

Our study found that a strong relationship between economic dependency and depression which can be attributed to difficulties in availing social assistance from

the probably because of delay from the government or lack of awareness about such benefits. Positive association was observed between those who belong to low socioeconomic status; those who were dependant for financial support were significantly more depressed. This was similar to the findings of Stanley A et al [6] and Ramchandra et al [7] in their studies.

It was also observed that the prevalence of depression was more among women when compared to men, which is similar to other study findings in older adult populations in both urban and rural settings. [8-11] However the prevalence of depressive disorders among the elderly of 60 years and above was found to be 21.7% .by Barua and Kar [12] in 2010,22.0% by Nandi D N et al [13] in Bengal,24.1% by Ramchandra V et al [7] and 13.5% by Tiwari SC [14] this difference in the prevalence with this study might be due to the different instruments used for measuring depression and also their larger sample size.

The proportion of depressed elderly women was more than their male counterpart (63.6% vs 36.44%) however this difference was not statistically significant. This finding corroborates with similar study done in villages located in Najafgarh area of Delhi. [15]

In this study, depression was most prevalent in those older adults who were unmarried or separated from their spouse. This is consistent with study findings in West Bengal, [16] where significantly higher prevalence of depression was observed among widowed persons (61.9% vs. 43.2% in married).

High prevalence of depression among old people can be mainly attributed to lack financial assistance either from the government or from the family members and relatives. This inturn leads to economic dependency among them. However we did not collect the in depth information

regarding reasons for delay in government assistance under Old Age Pension Scheme and this is one of the limitation of this study.

## CONCLUSION

Population ageing is an important emerging demographic phenomenon in India, warranting a strong multi-sectoral policy and programme response to deal with many significant implications for the elderly in particular and society at large. As the economic insecurity is one of the main reasons for psychological disorders like depression, the need of the hour is multipronged strategy not only in the form of assistance from the governments, but also in the form of creating awareness among caretakers about supportive care.

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