



ASSESSMENT OF DEPRESSION AMONG ELDERLY PERSONS RESIDING IN CHHATTISGARH.

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ABSTRACT India's "National Policy on older persons" classifies 60 years and above as aged who will constitute 10% of the total population by 2021. It is estimated that depression affects approximately 350 million people worldwide. An increasing geriatric population is associated with rising prevalence of chronic non-communicable diseases; therefore, the magnitude of depression is also expected to grow. Keeping the above background in mind, the present study will be conducted among elderly to determine the prevalence of depression. A cross sectional study was carried among 685 elderly people selected by Cluster Sampling and contacted through house to house survey in urban, rural and tribal areas of Chhattisgarh using a pre designed structured questionnaire i.e. Geriatric depression scale. It was found that 11.8% subjects were having depression, 25.1% were suggestive of depression and 63.1% subjects were not having any depressive symptoms. It is concluded that depression is prevalent among elderly persons residing in tribal area therefore it needs to be identified at an early stage, so that proper interventions can be started at the primary care level to ensure healthy ageing.

KEYWORDS : Elderly, depression.

INTRODUCTION

Over the last half of the 20th century, the average lifespan has increased by 20 years, bringing the global life expectancy to its current level of 71 years 1. India's National Policy on older person classifies 60 years and above as aged who will constitute 10% of the total population by 2021 2. Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially when long-lasting and with moderate or severe intensity, depression may become a serious health condition 3. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family 4. It is estimated that depression affects approximately 350 million people worldwide; constituting a major portion of mental health disorders 5. So the present study was conducted to assess, conclude and make recommendations for stakeholders based on evidence of depression among elderly persons residing in Chhattisgarh.

METHODS

It was a cross-sectional observational study done among elderly people residing in Chhattisgarh state by house to house visits. The data collection was done from December 2020 to March 2021. Elderly person aged 60 years and above residing in urban, rural and tribal areas of Chhattisgarh for six month or more and those who were willing to participate and gave consent were included in the study.

Selection of study area

Chhattisgarh state was divided into urban, rural and tribal cluster by using cluster random sampling. From each cluster, two blocks were selected by using simple random sampling. From each block, two villages/wards were selected by using simple random sampling. Population list of each village were gathered and sum of total village population was done. Then calculation of Sampling Interval (SI) was done. After getting SI, to know the estimated samples of each village, population proportionate to size sampling method was used.

Sample size

The sample size for the study was 685.
Selection of study subject

For selecting the household in each village, WHO Epi-Random Walk sampling method had been used & following steps were applied to select the households.-

Firstly, central location within the community was identified (Example- a market, a church, a health facility or the junction between two roads etc.). Then through spinning a bottle randomly a direction was chosen and then moved in a straight line in the chosen direction & counted all the houses pass until reach the edge of the community. Then, All the elderly person ≥ 60 years of age who were fulfil the inclusion criteria and present at the time of survey were chosen.

Study tool

A pre designed, pretested, semi-structured questionnaire for sociodemographic and structured questionnaire was used for depression i.e. Geriatric Depression Scale (GDS) a self-report measure of depression in older adults in accordance with the study objectives.

Interpretation of the questionnaire

In Geriatric Depression Scale each question has a response in yes or no to indicate presence or absence of a particular feeling. Of the 15 questions, 10 indicate the presence of depression when answered positively and were given score one on responses yes while other (No's 1, 5, 7, 11, 13) indicate depression when answered negatively. A score of 0-5 indicates absence of depression and score of 6 or more indicates possible depression.

Study technique

The study technique implemented was interview method.

Ethical consideration

Before starting the study, institutional scientific and ethics committee approval of Pt. J.N.M. medical college, Raipur, Chhattisgarh was taken.

Data analysis

Data collected were entered and compiled in Microsoft excel 2010. After checking its completeness and correctness data were analysed using SPSS software version 20. Results on continuous measurements were presented on Mean + SD. Categorical variables were interpreted using frequencies (%) and Chi-square & Fisher's Exact test been used to evaluate the association among categorical variables. Binary Logistic Regression was used for bivariate analysis to identify factors associated with depression. Confidence Interval (95%) was used to estimate the association between the dependent variable & independent variables. P-value of < 0.05 was considered to be statistically significant.

RESULTS

Table 1: Distribution of study subjects on the basis of Sociodemographic Characteristics (n=685)

Sociodemographic Characteristics		Frequency (%)
Age group (in completed years)	60-69	423 (61.7)
	70-79	200 (29.2)
	≥ 80	62 (9.1)
Mean age = 67.9 years Standard deviation for age = 6.4		
Gender	Male	307 (45)
	Female	378 (55)
Category	General	389 (56.8)
	OBC	151 (22)
	SC/ST	145 (21.2)

Religion	Hindu	633 (92.4)
	Others	52 (7.6)
Marital Status	Married	481 (70.2)
	Widow/Widower Divorced/Separated/Unmarried	204 (29.8)
Education Status	Graduate and above	35 (5.1)
	Higher Secondary	74 (10.8)
	High School	94 (13.7)
	Middle	119 (17.4)
	Literate/Primary Illiterate	50 (7.3) 313 (45.7)
Income	Pension / Salary	153 (22.3)
	Dependent on others	532 (77.7)
Family type	Joint	509 (74.3)
	Nuclear	176 (25.7)
Type of house	Pucca	565 (82.5)
	Semi pucca	27 (3.9)
	Kaccha	93 (13.6)
Living arrangement	Living alone	51 (7.4)
	Living with spouse only	88 (12.8)
	Living with spouse and children	546 (79.7)
Socioeconomic status	Lower	274 (40.0)
	Lower Middle	286 (41.8)
	Middle	88 (12.8)
	Upper Middle	37 (5.4)

Majority 61.8 % study subjects belonged to age group of 60 to 69 years, 29.2 % from 70 to 79 years and 9.1% from ≥80 years. The mean age was 67.9 ± 6.4 years. With respect to gender wise distribution, majority 55% of the study subjects were Females as compared to Males 45%. Male to female ratio were 81%. Most of the study subjects, 56.8% were belongs to General Category. Majority 92.4% study subjects were belongs to Hindu by religion. 70.2% study subjects were married. 45.7% study subjects were illiterate. Majority 77.7% study population were Dependent on others. Majority 74.3% study subjects were belonged to Joint family. Majority 79.7% study subjects were Living with spouse and children. As of 41.8%, 40%, 12.8% and 5.4% study subjects were belonged to lower middle, lower, middle & upper middle socio economic status, respectively. (Tab 1)

Table 2: Total Geriatric depression score (Depression) of study subjects with area of residence. (n=685)

Area of residence	Depressed (>5)	Not Depressed (≤5)	Total
Urban	156 (35.5%)	284 (64.5%)	440 (100%)
Rural	61 (39.6%)	93 (60.4%)	154 (100%)
Tribal	36 (39.6%)	55 (60.4%)	91 (100%)
Total	253 (36.9%)	432 (63.1%)	685 (100%)

$\chi^2 = 1.15, df=2, P \text{ Value}=0.56$

As observed from the table 39.6% study subjects from TRIBAL area and 39.6% study subjects from RURAL area and 35.5% in URBAN area were depressed (Table 2).

Table 3: Logistic regression analysis of Socio-demographic profile of study subjects according to depression status –

Variable	Unadjusted odds ratio (95% class interval)	Adjusted odds ratio (95% class interval)
Distribution of study subjects according to age groups		
60-69	1	1
70-79	2.969 (2.083 - 4.231)	2.73 (1.967 - 4.164)
80 and above	11.41 (5.959 - 21.868)	9.1 (4.523 - 17.515)
Distribution of study subjects according to marital status		
Married	1	1
Widow/Widower/divorced/separated	2.936 (2.093 - 4.118)	2.17 (1.711 - 3.922)
Distribution of study subjects according to type of Family		
Joint	1	1
Nuclear	1.780 (1.256 - 2.522)	1.10 (0.338 - 1.568)
Distribution of study subjects according to living arrangement		
Living with spouse and children	1	1
Living with spouse only	1.416 (0.895 - 2.240)	2.45 (1.029 - 5.835)
Living alone	3.025 (1.678 - 5.453)	1.69 (0.650 - 4.455)
Distribution of study subjects according to socioeconomic status		
Upper Middle	1	1
Middle	0.603 (0.277 - 1.312)	0.443 (0.196 - 1.096)

Lower Middle	0.485 (0.243 - 0.968)	0.452 (0.216 - 0.982)
Lower	0.741 (0.372 - 1.474)	0.567 (0.277 - 1.262)

For contributing factors of depression, age in terms of 60-69 years with 70-79 years were having unadjusted odds 2.969 and adjusted odds 2.73 times more and with 80 years & above were having unadjusted odds 11.41 and adjusted odds 9.1 times more in depressed among 60-69 years than the not depressed. Marital status in terms of married and widow/ widower/ divorced /separated was having unadjusted odds 2.936 and adjusted odds 2.17 times more in depressed among married than the not depressed. Type of family in terms of joint and nuclear family was having unadjusted odds 1.780 and adjusted odds 1.10 times more in depressed among joint family than the not depressed. Living arrangement in terms of living with spouse and children with living alone were having unadjusted odds 3.025 and adjusted odds 1.69 times more and with living with spouse only having unadjusted odds 1.416 and adjusted odds 2.45 times more in depressed among living with spouse and children than the not depressed. Socioeconomic status in terms of upper middle with middle, lower and lower middle having unadjusted odds 0.603, 0.741, 0.485 and adjusted odds 0.44, 0.56 and 0.45 times less respectively in depressed among upper middle then the not depressed. (Table 3)

DISCUSSION

It can be observed from the present study that 36.9% study subjects were depressed while 63.1% study subjects were not depressed. Study done by Sundru and Goru et al 7 in Visakhapatnam (2013) among 315 elderly and Sanjay et al 8 in Parvithapura, Bengaluru locality in (2013–2014) among 186 elderly showed that 36% study subjects were depressed and M. Buvneshkumar et al 9 among 690 elderly people showed the prevalence of depression as 35.5%. Similarly, study by Sinha et al 10 in Sembakkam village in Kancheepuram district in 2012 among 418 elderly people showed the prevalence of depression to be 42.7%. As observed from the above table 39.6% study subjects from TRIBAL area and 39.6% study subjects from RURAL area and 35.5% in URBAN area were depressed. The association between area of residence and depression was statistically insignificant. Similar studies done by Jain RK et al 11 in urban slums of mumbai among 280 elderly people showed 45.9% prevalence of depression. Pracheth R et al 12 in the urban slums of Dharwad district, Karnataka reported 29.36%. Kamble SV et al 13 31.4% in a rural population of Ahmednagar, Maharashtra, and Rajkumar AP et al 14 in 1000 elderly in Vellore, Tamil Nadu reported 12.7% depression among study subjects.

CONCLUSION

This study has provided a multifaceted look at various factors and their contribution to depression of the elderly. The study highlighted that depression was found more among the elderly people resident of tribal and rural area followed by urban area. Contributing factors for depression was found among elderly with increasing age, widow/widower/divorced/separated, nuclear family and living alone.

Recommendations

Compulsory provision of elder-friendly institutions to provide physical, mental, social, rehabilitation, counselling services, useful aids (walking stick, wheelchairs, hearing aids etc.) for elderly people with zero out-of-pocket expenditure or at a very low cost. National mental health programme (NMHP) and National Health Care of the Elderly (NPHCE) to be integrated so that depression/mental health issues can be looked after by the joint training of counsellors and rehabilitation workers in an integrated way as per the finding of present study. Social health camps or specialist visit programmes are to be organized to identify the problems among elderly people at the community level. Rehabilitation workers and physiotherapists who are posted at the institute level should visit the community and provide restoration of physical, emotional and occupational services on rotation. (Reference- National Program for Health Care of Elderly NPHCE). A special outlet or a dedicated community-based mental health program should be organized for elder people and by training of community health volunteers. Health education materials should be designed based on health problems of elderly, effect of illiteracy, effect of loneliness and effect of emotional support which are major/key findings of the present study. The component of elderly health care in -Health and Wellness Centers (HWC) should be well implemented, capacity building of health care workers with reference to issues in the present study. Equity-based social security is to be ensured for all elder people, and it should be covered hundred percent and well monitored. Looking into the evidences of present study, large scale epidemiological studies should be done across India with addressing these key points.

Acknowledgements

A special acknowledgement and gratitude to all principals, teachers, study subjects and their care takers, mitanins and coordinators who formed the pillars of my study and without their cooperation this study would not have been possible.

DECLARATIONS

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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