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STUDY TO ASSESS THE PREVALENCE OF ADDICTION IN ELDERLY AGE GROUP IN FIELD PRACTICE AREA OF MAHARISHI MARKANDESHWAR MEDICAL COLLEGE OF SOLAN DISTRICT OF HIMACHAL PRADESH

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ABSTRACT

Objectives: To assess the prevalence of addictions in elderly along with their health problems and level of satisfaction with behavior their families members. ***Methods:*** cross-sectional study in the rural and urban field practice area of dept. of community medicine of Maharish Markandeshwar Medical College and Hospital Kamarhati, Solan, H.P, India. ***Results:*** all families surveyed in urban set up were belonging to APL and in rural area 6% were belonging to BPL families, hence out of 100 families 12% were belonging to BPL families. There were 437 family members in all families so prevalence of elderly in study area is 22.2% shows that in urban area 57% of elderly were male and 43% were females & in rural set up 42% were elderly males 58% were elderly female whereas among entire surveyed area population 51% were elderly male and 49% were female. Habit of consumption of alcohol among elderly was 7% in urban elderly males and 21 in rural set up. Corresponding figures were 0 among elderly females in both set ups. In total 13% elderly were consuming alcohol. Cases of hypertension among elderly were 37% in urban and 23% in rural area comprising 30.9% hypertensive disorder among entire population surveyed. Corresponding figures for diabetes are 22%.7% and 15.4% for urban, rural and entire elderly population studied. In urban area 46 % were highly satisfied from behavior of their family members, 50% were satisfied and 4% were not satisfied. Whereas 19% in rural set up were highly satisfied and 81% were satisfied. ***Conclusions:*** Geriatric heath is one of the great matter of great concern, along with process of ageing this is period of instability of mental balance. Again life style of urban and rural set up has different impact on geriatric health.

KEYWORDS: APL, BPL, Hypertensive, Geriatric.

INTRODUCTION

Globally the life expectancy is increasing because of control of some communicable diseases, better technology in medical field, better and fast communication, availability and accessibility of health services in Govt. and private sector and the developmental activities as a whole. Deaths in elderly is increasing due to Ischemic heart disease, stroke, chronic obstructive lung disease and lower respiratory infections which are directly linked with addiction of smoking. Diabetes caused 1.6 million (2.8%) deaths in 2015.[1] We have the menace of substance addiction in children, adolescents and the younger adults due to certain socio-economic, cultural and environmental factors. In the process we miss the habit of drug addiction in the elderly age group. In the elderly age group, the causes and the peculiarities of drug addiction is are different as compared to the young population. The substance addiction affects adversely the health of the individual and the other members of the family. Smoking, which not only affects the health of the person, but we have instances of ill health because of passive smoking in the other members of the family. There are indirect effects also like the MDR TB is more common in smokers than non-smokers.[2]

At the National level, percentage of aged (60+) population is 8.1. In rural areas, population in the age group 60+ constitutes 8.0 percent of the total population. The proportion of aged population in urban areas is 8.3 %. Composition of 60+ aged female populations is 8.4% and male population is 7.7%.[3]

Himachal Pradesh has 7 lakh persons aged 60 years and above, constituting 10.2% of its total population, which is higher than the national average of 8.1% (Census 2011). Between 1991 and 2011, overall population in the state increased 37%; the 60+ population increased 67%; and the 80+ which is the fastest growing age segment, increased by 87%.[4] Prevalence of heart diseases among elderly population was much higher in urban areas than in rural parts. Most common disability among the aged persons was locomotor disability and visual disability as per Census 2011[5] According to Global Adult Tobacco Survey (GATS) 2009 and 2010, In Indian scenario 31% of rural area the figures are 25.9% and 3.7% respectively.[6]

Common conditions in older age include hearing loss, cataracts and refractive errors, back and neck pain and osteoarthritis, chronic obstructive pulmonary disease, diabetes, depression, and dementia. Furthermore, as people age, they are more likely to experience several conditions at the same time. Older age is also characterized by the emergence of several complex health states that tend to occur only later in life and that do not fall into discrete disease categories. These are commonly called geriatric syndromes. They are often the consequence of multiple underlying factors and include frailty, urinary incontinence, falls, and delirium and pressure ulcers. Geriatric syndromes appear to be better predictors of death than the presence or number of specific diseases. Yet outside of countries that have developed geriatric medicine as a specialty, they are often overlooked in traditionally structured health services and in epidemiological research.[7] Mental and neurological disorders among older adults account for 6.6% of the total disability (DALYs) for this age group. Approximately 15% of adults aged 60 and over suffer from a mental disorder.[8]

National Policy on Older Persons (NPOP) adopted by the Government of India in 1999 & Section 20 of "The Maintenance and Welfare of Parents and Senior Citizens Act, 2007" dealing with provisions for medical care of Senior Citizen.[9] Indira Gandhi National Old Age Pension Programme which is implemented as part of the National Social Assistance Program (NSAP) of the Ministry of Rural Development, Government of India[10] and the Annapurna Scheme has been launched with effect from 1st April, 2000. It aims at providing food security to meet the requirement of those senior citizens who have remained uncovered under the National Old Age Pension Scheme (NOAPS).[11] We also need to assess the level of satisfaction of the person with the other members of the family. The habit of drug addiction may adversely affect the acceptability of the person in certain families. The socio-economic and cultural fabric of the country in urban areas and also to some extent in the rural areas is getting changed. As a result the elder's role and respect is getting eclipsed. Addiction can be a cause or the effect of this scenario. We don't have any such study in our district and part of the state. We decided to focus on issues of geriatric population and address their social and health problems.

MATERIAL AND METHODS

Study area: The study will be conducted in the rural and urban field practice area of dept. of community medicine of Maharish Markandeshwar Medical College and Hospital Kamarhati, Solan, H.P, India.
Study design: A cross sectional analytic study.
Study duration: Jan 2020 to Dec 2021.
Study population: Persons who are residents of the study area and who fulfil the inclusion criteria

Inclusion criteria

1. The persons above the age of 60 years will be included in the study, who are permanent resident of the locality (Residing continuously for the last 6 months)
2. Subjects who are willing to participate in the study & gives informed consent.

Exclusion criteria

1. Temporary visitors/guests/ person residing in the area for less than 6 months
2. Persons not interested/willing to participate in the study
3. Person suffering from a severe ailment

Sample size

Sample size will be calculated using the following formula

$N= Z^2 \times P (1-P))/e^2 = 2^2 \times 99 \times 1/16 = 25$

Where

Z=Confidence level

P = Estimated prevalence (8% elderly population and 10% addiction among elderly)[12]

e = Acceptable error

Strategy

1. The department of community medicine has two field practice areas rural areas of Rural Health Training Centre (RHTC) Joharji and urban area catchment area of Urban Health Training Centre (UHTC) Solan.
2. Two villages by random method and same number of localities were identified in the rural area and urban area in Field Practice Area.
3. The households in the selected area will be taken randomly. Responsible respondent from the family will be asked about the common/general information of house.
4. The subjects will be explained the purpose of study and invited to participate. Those willing will be interviewed using a semi-structured and pre-tested questionnaire.
5. All the persons above 60 years who fulfil the inclusion criteria will fall under the frame of the study.

6. Based on study's conclusion, the needful recommendations will be suggested relevant authorities.

Study tool

Pretesting of the tool will be done for 10 families and the changes made in investigating tool after pretesting. The questionnaire consists of sections:

1. Socio Demographic variables like age, sex, family members etc.
2. Questions about type of addiction and its duration in geriatric age group
3. Associated disease and adherence to its treatment.

Statistical analysis

Data collection will be done on house to house basis and data collected will be entered in the Microsoft Excel & analyzed.

RESULTS

Table 1: Socioeconomic status of families surveyed.

Socioeconomic status	URBAN (N=50)		RURAL (N=50)		TOTAL (N-100)	
	N	%	N	%	N	%
APL	50	100	44	88	94	94
BPL	0	0	6	12	6	6

Table 1/Fig. 1 depicts that all families surveyed in urban set up were belonging to APL and in rural area 6% were belonging to BPL families, hence out of 100 families 12% were belonging to BPL families. There were 437 family members in all families so prevalence of elderly in study area is 22.2%.

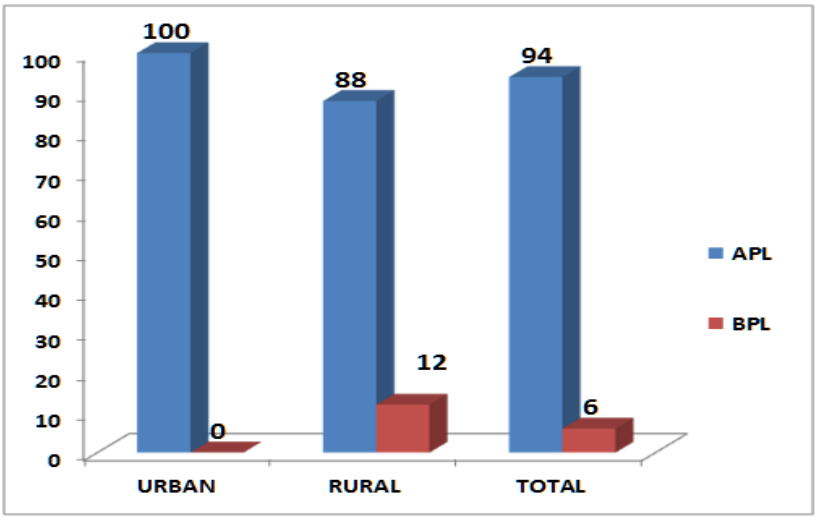

Fig. 1: Showing the socioeconomic status of families surveyed.

Table 2: Sex distribution of elderly in urban and rural setups.

Sex distribution	URBAN (N=54)		RURAL(N=43)		TOTAL(N=97)	
	N	%	N	%	N	%
Male	31	57	18	42	49	51
Female	23	43	25	58	48	49

Table 2/Fig. 2 shows that in urban area 57% of elderly were male and 43% were females & in rural set up 42% were elderly males 58% were elderly female whereas among entire surveyed area population 51% were elderly male and 49% were female.

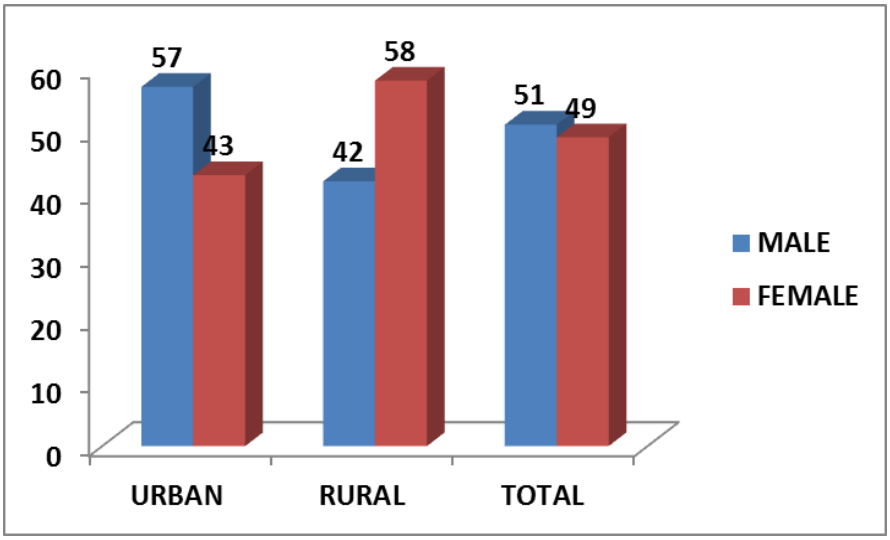

Fig. 2: Sex distribution of elderly in Urban and Rural setups.

Table 3: Status of addictions among Elderly and Adherence to treatment.

Parameter	URBAN (N=54)		RURAL (N=43)		TOTAL (N=97)	
	N	%	N	%	N	%
Habit of alcohol consumption	4	7	9	21	13	13.4
Alcohol consumption by elderly males	4	7	9	21	13	13.4
Alcohol consumption by elderly females	0	0	0	0	0	0
Habit of tobacco smoking	15	28	15	35	30	30.9
Tobacco smoking by elderly males	15	28	13	30	28	28.9
Tobacco smoking by elderly females	0	0	2	5	2	2.0
Any other addictions	0	0	0	0	0	0
Any illness	28	52	20	47	48	49.4
Hypertensive(HTN) disorder	20	37	10	23	30	30.9
HTN in elderly males	12	22	6	14	18	18.5
HTN in elderly females	8	15	4	9	12	12.4
Diabetes Mellitus (DM)	12	22	3	7	15	15.4
DM in males	8	15	2	5	10	10.3
DM in females	4	7	1	2	5	5.2
Other diseases	3	5	7	16	10	10.3
Taking treatment	27	96	20	100	47	97.9
Satisfied from treatment	26	93	20	100	46	95.8
Highly satisfied from behavior of family members	25	46	8	19	33	34.0
Satisfied from behavior of family members	27	50	35	81	62	63.9
Not Satisfied from behavior of family members	2	4	0	0	2	2.1

Table 3 illustrates habit of consumption of alcohol among elderly which was 7% in urban elderly males and 21 in rural set up. Corresponding figures were 0 among elderly females in both set ups. In total 13% elderly were consuming alcohol.

Table 3 describes habit of smoking among urban set up is 28% whereas in rural area it is 30% among elderly males corresponding figures for elderly females is o in urban and 5% in rural area. In total elderly males were 29% and 2% elderly females who smoke tobacco. In total 31% elderly were smoking tobacco.

Table 3 demonstrates adherence to treatment in elderly, where 30% male in Urban and 20% in rural area were taking treatment for various diseases. Corresponding figures in elderly females were 22% in urban elderly females and 24% in rural elderly females. Amongst total elderly surveyed 26% elderly males and 24% elderly

females were taking treatment of any kind. In total 30% elderly were taking treatment of any kind.

Table 3 depicts that 52 % elderly of rural area and 48% from rural area were having illness of any kind. Cases of hypertension among elderly were 37% in urban and 23% in rural area comprising 30.9% hypertensive disorder among entire population surveyed. Corresponding figures for diabetes are 22%, 7% and 15.4% for urban, rural and entire elderly population studied. From urban set up 96% elderly were taking treatment and 93% were satisfied from I, whereas in rural set up all were taking treatment and were satisfied. In urban area 46 % were highly satisfied from behavior of their family members, 50% were satisfied and 4% were not satisfied. Whereas 19% in rural set up were highly satisfied and 81% were satisfied.

DISCUSSION

Elderly population is an age group combating the process of ageing which has brought tremendous changes in their lives. There is great pressure so as to cope up with physical and mental health ailments. *S.Kishore, et al; (2019)*[13] did a cross sectional study in order to find out the prevalence of alcohol consumption in relation to socio-demographic characteristics among adults and elderly population of Uttarakhand. They included four different geographic settings (urban, rural, town and slum) of Uttarakhand where simple random methodology was done. They found that alcohol consumption was reported higher in 30-49 years age group (45%), married (38%), employed (58%), males (72%), residing in rural areas (43%). They concluded that Uttarakhand percentage of alcohol consumption is higher among middle age group (30-49 year). Males are more alcoholic than females. *Manish Jain. et al, (2018)*[14] in their Cross - sectional study which was conducted from January, 2015 to December, 2015 at Rural and Urban health training centers of Department of Community Medicine, RNT Medical College, Udaipur, Rajasthan. Study population comprised of elderly people aged 60 years or more, residing for a period of six months in rural area of Vallabhnagar and urban area Dhanmandi. They found that, 9.6% rural and 6.8% urban elderly were current alcohol users. 19.6% rural and 12.8% urban elderly were current smokers while 20.4% rural and 14.0% urban elderly were current smokeless tobacco users. No significant difference found between rural and urban elderly people in relation to habit of smoking and alcohol consumption.

With continuous changes in technology and life style modifications they have endured a pressure to cope up society. To accept generation gap is a great challenge in this age group. In our study we have tried to assess their addictive behaviour, adherence to medical treatment for various ailments in urban and rural practice area of a medical college. *A Mondal, at el: (2018)*[15] in order to understand the changes and differentials in alcohol consumption in India a study was done where data was collected from the national representative Indian Human Development Surveys (IHDS) I (2004-05) and II (2011-12). Bivariate analysis was used to show the prevalence of alcohol consumption concerning some selected socioeconomic and demographic background variables. In their study they came across that alcohol consumption was 2% higher. In addition to that, there were some states where the consumption of alcohol had increased from 2004 to 2012 like Mizoram (44%), Kerala (19%), and Jammu and Kashmir (16%). *Ulrich John, at el: (2005)*[16] did a cross-sectional survey study with a national probability household sample in Germany. In their study data of 179,472 participants aged 10 or older were used based on face-to-face in-home interviews or questionnaires.. They found that smokers tended to be larger among female than among male ever smokers aged 40 or above. Women compared to men showed adjusted odds ratios of 1.7 to 6.9 at ages 40 to 90 or older in contrast to men. No such interaction existed for age of onset of smoking or cigarettes per day. They concluded in their study that special emphasis should be given to current smokers among the female general population at the age of 40 or above in public health intervention.

Prevalence of elderly population in study area is 22.2% which is higher than national average of 8.1% and also higher than state average of 10.2%.[17] This is attributed due to better climatic conditions, life style, availability of health care facilities and increase in life expectancy.[18] In our study 100% population living in Urban area is Above Poverty Line (APL) this is attributed due to houses owned by residing population in urban set are belong to them and in rural population 12% households surveyed belonged to Below Poverty Line (BPL). In a study done by *Swastik S Satapathy, et al; (2018)*[19] in their study based on world bank report found that 80% of India's poor live in rural areas and the poverty rate in rural India is 25% and that of urban area is 14% corresponding figures in our study are less in rural areas and nil in urban set up.

In urban area under study 43% were females & in rural set up 58% were elderly female whereas among entire surveyed area population 49% were female. According to Population Census 2011 there are nearly 104 million elderly persons (aged 60 years or above) in India; 53 million females and 51 million males.[17] In a study done by *S.Venkatesh, et al;(2014),*[20] According to Census report 2006-2010, Kerala has highest 9.09 percent of female elderly population followed by Himachal Pradesh 7.28 percent, Maharashtra 7.26 percent and least followed by Bihar and Assam 4.32 and 4.21 percent respectively which corresponds well with rural study area but in urban set up these figure are slightly less for provenance of population of elderly females.

In our study it was found that elderly males were 29% and 2% elderly females who smoke tobacco, in total 31% elderly were smoking tobacco. In a study done by *GK Mini et al; (2014)*[21] conducted a study using data from

the United Nations Population Fund (UNFPA). A survey on was conducted in seven major states in India in 2011 and found that smoking prevalence among elderly women was low (1.1%) and Current use of any form of tobacco was 28.2% among elderly in the age group of 60-70 and it was 27.1% in 70 years and above age group of population under study.

CONCLUSIONS

Geriatric heath is one of the great matter of great concern, along with process of ageing this is period of instability of mental balance. These people require various aids occupational therapy, physiotherapy, medical, dental, vocational interventions and palliative care. In our study an attempt was made to assess addictions, medical illness, adherence to treatment and satisfaction from treatment and behavior of family members. Again life style of urban and rural set up has different impact on geriatric health.

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