

## Psychosocial and Health related issues among Elderly Population in a Rural Population of Barabanki, Uttar Pradesh

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### Abstract

**Background:** Population ageing is recognised international reality in both developed and developing countries like India. The present cross-sectional study was undertaken to study psychosocial and health related issues among the Elderly in a rural population of Barabanki district, Uttar Pradesh.

**Material & Methods:** A community based cross-sectional study was conducted among 782 elderly subjects in rural population of Barabanki, Uttar Pradesh. A pre-tested semi structured schedule was used to collect information regarding bio-social characteristics and complete clinical examinations along with review of medical history were performed among the study subjects to assess any type chronic morbid and psycho-social problems.

**Results:** Overall 45.3 percent elderly population had some type of addiction. In that 51.6% male elderly had some type of addiction and 38.1% female had some type of addiction. Most frequent morbidity was musculoskeletal impairment (36.6%) followed by vision impairment (34.7%) while 38.2% elderly had no diagnosed morbidity. Most frequent psychosocial problem feeling neglect (26.9%) followed by loneliness (17.0%).

**Conclusion:** The different morbidities along with psychosocial problems were quite prevalent among elderly which emphasize the need towards special intervention strategies with integrated comprehensive health approach at community level.

**Keywords:** elderly, health, psychosocial, rural

### 1. Introduction

Population ageing is gaining momentum in developing countries, as demographic transformation has profound consequences for all individuals, families, communities and nations [1]. Worldwide, about 11% of population is above 60 years of age and 8% of this population age resides in South East Asian countries including India [2]. Demographic transition has been resulted due to increasing life expectancy and increase in proportion of elderly population [3]. India's demographic structure will transform dramatically from a young to an ageing population resulting in 316 million elderly persons by 2050 [4]. With epidemiological transition of diseases there has been increase in burden of chronic morbid conditions during past few years. The problems of the aged differ not only between nations but also within nations and between communities [5]. According to Government of India statistics, respiratory disorders account for 10% mortality while infections including tuberculosis account for another 10% and cardiovascular disorders (CVDs) account for one-third of elderly mortality [6]. Elderly use to suffer from multiple symptoms at a time due to debility of various body functions including immunity [7]. The present study is therefore important as it would throw light on the issues and problems related to health of the elderly. Therefore present cross-sectional study was undertaken to study psychosocial and health related issues among the Elderly in a rural population of Barabanki district, Uttar Pradesh.

### 2. Material and Methods

- **Study design:** Study design was cross-sectional descriptive.
- **Study Duration:** August 2015 to July 2016.
- **Study population:** The study population comprised of individual of either sex of old age persons (age  $\geq 60$  years) from general population residing in catchment area of Rural Health Training Centre, Satrikh, Hind Institute of Medical Sciences, Barabanki district UP.
- **Study unit:** Elderly ( $\geq 60$  years) from general population residing in catchment area of Rural Health Training Centre of Hind Institute of Medical Sciences, Barabanki, UP.
- **Sample Size:** As the study cover respondents were elderly people from the general population residing in catchment area of RHTC, Hind Institute of Medical Sciences Barabanki district. The sample size for present study was calculated taking into account the prevalence of psychosocial and health related problem in of elderly people as 42% [8]; The relative precision was taken as 5 percent. The sample size calculation was done using formula  $4pq/d^2$  where p is prevalence of psychosocial and health related problem in elderly people, d as allowable error (5%) and design effect of 2 the estimated sample size calculated was 780.
- **Sampling technique:** In order to recruit the desired study subjects, 16 villages under RHTC, Satrikh were selected. In a village, all the houses were numbered serially. The first

house was selected randomly and the subsequent houses were selected using a table of random numbers. From each house one eligible participant was selected, 50 participants were selected from a village. In the similar manner participants were selected from all the 16 villages to obtain the desired sample size of 782.

#### **Inclusion criteria**

- Elderly aged above 60 years.
- Living in area for last 5 years.
- Able to answer the questions/ interview.

#### **Exclusion criteria**

- Non responsive and uncooperative.

#### **Data Collection**

General information including personal details, educational and occupational detail, family detail, medical history, habits and addiction and data about financial resources was gathered using predesigned pretested questionnaire.

#### **Socioeconomic Status (SES)**

SES is classified through detailed assessment on, "A scale for the assessment of socioeconomic status" was used. The categorized into five SES classes i.e. Lower class, Lower middle class, Middle class, Upper middle class, Upper class (Modified Prasad BG scale 2015)

#### **Data Analysis**

Data was analyzed using the SPSS, version 17.0. Descriptive statistics such as mean, standard deviation (SD) for continuous variables and frequency percentage for categorical variables were determined. Chi-square, fisher's test was used to show the relation between independent and dependent variables.

### **3. Results**

#### ***Biosocial Characteristic of Study Population***

In the present study, a total of 782 individuals were analyzed. More than two third of them were in age group 60-69 years (88.6%), in age group 70-79 years were 7.9% age group and in age group  $\geq 80$  years were 3.5%. Maximum number of males and females were from the age group 60-69 years. In the age group of 70-79 years more number of females (10.4 %) than males (5.8 %). In age group of  $\geq 80$  years there were almost same number of males and females (3.4% and 3.5% respectively). The mean ages of study group were in males 64.14 years & females 64.11 years. In the present study, majority of the studied population were Hindus (91.4%) followed by Muslims (8.6%). The percentages of general (46.9%) were found to be similar as OBC (46.7%) and SC/ST were about 12.5%. Majority of the subjects were married (83.4%) followed by unmarried/ widowed/widower (0.5%). Overall, 77.1% of the respondents were belonged to joint

family and 22.9% nuclear family. Among 40.5% of the respondents were illiterate, of whom were 43.6% females and 37.5% males. Nearly same (40.5%) of the respondents were primary class, of whom 43.6% females and 38.1% males. In present study, more than one third (43.7%) of respondents belonged to lower SES followed by lower middle class (43.6%), lower class (22.5%), middle class (20.3%) and upper middle class (6.8%). More than one third of males (43.9%) and females (43.6%) were belonged to lower SES. Overall two third (70.6%) of males worked as farmer while about 12.3% were engaged in business and some or the other were engaged in other occupation. Among females around 92.7% were housewives.

Overall 45.3 percent elderly population had some type of addictions. In that 51.6% male elderly had some type of addiction and 38.1% female had some type of addiction. Among males 23.6% elderly were addiction of tobacco chewing, followed by 22.2% elderly males were habit of smoking and 4.8% of elderly males were habit of alcohol. While among elderly females only 38.1% had some type of addiction and 28.6% female were addictions of smoking. [Table no. 1]

Overall most frequent psychosocial problem 26.9% feeling neglect followed by loneliness 17.0%. In among male 28.9% male elderly they had experienced change of attitude of family member and feel neglected, followed by 14.9% elderly had feeling of loneliness while among females elderly a maximum of 24.9% had feeling of neglect followed by feeling of loneliness 19.3% and in about 23.1% female elderly had feeling of change in attitude of family members due to various reasons. [Table no. 2]

Most frequent morbidity was musculoskeletal impairment 36.6% followed by vision impairment morbidity 34.7% while 38.2% elderly had no diagnosed morbidity, while among males elderly a maximum of 36.9% had vision problem followed by musculoskeletal 33.7% and in about 35.4% male elderly had no diagnosed morbidity. While among females 39.8% had musculoskeletal problem followed by vision impairment 32.2% and in about 41.4% females had no diagnosed morbidity. [Table no. 3]

Overall 11.5% elderly had at least one type of morbidity and 22.5% had at least two type of morbidity, while in study population 38.2% elderly don't have any type of morbidity. Among the age group 60-69 years, in study population 12.2% had at least one type of morbidity and 21.2% had at least two type of morbidity, while 40.7% elderly don't have any morbidity. In the age group 70-79 years around 32.3% had at least two morbidities while 37.1% had more than two morbidities and 21.0% elderly don't have any morbidity. In the age  $>80$  years group, 33.3% elderly had at least two type of morbidity and 25.7% had more than three type of morbidity. Relation between number of morbidities and age group were statically significant ( $p < 0.05$ ). [Table no. 4]

**Table 1:** Distribution of study population according to addiction (n=782)

Habit and Addiction	Participants				Total		Chi- square	p value
	Male		Female		n	%		
	n	%	n	%				
Tobacco Chewing	98	23.6	27	7.4	125	16.0	61.38	p<0.001
Smoking	92	22.2	113	30.7	205	26.2		
Alcohol	20	04.8	0	0.0	20	2.6		
Tobacco & Alcohol	4	1.0	0	0.0	4	0.5		
No addiction	201	48.4	227	61.9	428	54.7		
Total	415	100	367	100	782	100		

**Table 2:** Distribution of study population according to psychosocial problems (n=782)

Psycho-social Problem	Participants				Total (n=782)	
	Male (n=415)		Female(n=367)		n	%
	n	%	n	%		
Feeling Neglect	120	28.9	90	24.5	210	26.9
Loneliness	62	14.9	71	19.3	133	17.0
No Care Giver	8	1.9	13	3.5	21	2.7
Economic matter	26	6.3	39	10.6	65	8.3
Others	70	16.9	46	12.5	116	14.8
No Psychosocial Problem	129	31.1	108	29.4	237	30.3
Total	415	100	367	100	782	100

**Table 3:** Distributions of study population according to morbidities (n=782)

Type of Morbidity	Participants				Total	
	Male		Female		n	%
	n	%	n	%		
Vision Impairment	153	36.9	118	32.2	271	34.7
Gastroenterology	32	7.7	24	6.5	56	7.2
Hearing Impairment	16	3.9	4	1.1	20	2.6
Musculoskeletal	140	33.7	146	39.8	286	36.6
Hypertension	98	23.4	72	19.2	170	21.7
Cerebrovascular	12	2.9	4	1.1	16	2.0
Respiratory	55	13.3	60	16.3	115	14.7
Diabetes Mellitus	17	4.1	20	5.4	37	4.7
Cancer	8	1.9	4	1.1	12	1.5
Genitourinary	83	20.1	62	16.9	145	18.5
No Morbidity Diagnosed	147	35.4	152	41.4	299	38.2
Total	415	100	367	100	782	100

**Table 4:** Distribution of study population according to morbidity status present in different age groups (n=782)

Morbidity (No.)	Age Group						Total		Chi- square	p value
	60-69years		70-79years		≥80 years		n	%		
	n	%	n	%	n	%				
One	86	12.4	4	6.5	0	0.0	90	11.5	94.76	p<0.001
Two	147	21.2	20	32.3	9	33.3	176	22.5		
Three	135	19.5	2	3.2	7	25.9	144	18.4		
>Three	43	6.2	23	37.1	7	25.7	73	9.3		
None	282	40.7	13	21.0	4	14.8	299	38.2		
Total	693	100	62	100	27	100	782	100		

**4. Discussion**

In the present study, it was observed that 45.3% elderly population (51.6% male elderly had some type of addiction and 38.1% female had some type of addiction) had some type of addiction. Among male 23.6% elderly had addiction of tobacco chewing; followed by 22.2% elderly male had habit of smoking and 4.8% of elderly male had habit of alcohol. While among elderly females only 38.1% had some type of addiction and 28.6% female had addiction of smoking. Mundada *et al.*, (2016) in their study found that addiction habits in males' elderly were smokers 29.96% and 18.18% were consuming alcohol. 29.29% and females 45.42% were chewing tobacco.

[9] Srinivas and Manjubhashini, (2014) in their study found 36.6% of the study population were smokers [10]. In the present study, it was observed that, most frequent psychosocial problem among male elderly was feeling neglect (26.9%) followed by feeling of loneliness 17.0%. Bardhan *et al.*, (2016) in their study found that in geriatric populations main psychological issues were forgetfulness 32.96% and loneliness 23.67% [11]. Sharma *et al.*, (2014) in their study reported that 78% had mild physiological problems [12]. Gupta *et al.*, (2012) in their study found that 9.6% were had psychological problems [13]. Bhatia *et al.*, (2007) in their study reported that loneliness were more in females 72.8% as compared to males

65.6%<sup>[14]</sup>. Kaur *et al.*, (2007) in their study found that 70% of subjects were in the mild psychosocial stress in rural areas while 30% of the rural subjects were in moderate psychosocial stress<sup>[15]</sup>. In the present study, it was observed that most frequent morbidity musculoskeletal 36.6% followed by vision impairment morbidity 34.7%. Bardhan *et al.*, (2016) in their cross-sectional study found that in geriatric population 59.08% had musculoskeletal problem, 58.77% had dental problem, and 55.61% had vision impairment<sup>[11]</sup>. Soni *et al.*, (2016) in their study found that majority 98.6% had oro-dental problems, followed by vision problems (92.0%), gastrointestinal disorders(86.7%), hearing impairment (72.0%), hypertension including cardiovascular problems (49.5%), musculoskeletal disorder (38.9%), genitourinary problems (36.0%), obesity (34.9%), anemia (34.8%) and respiratory disorder (24.2%)<sup>[16]</sup>. Verma *et al.*, (2016) in their study that most prevalent diseases were related to ocular, musculoskeletal, psychological system, gastrointestinal system, and dental disorder affecting about 68.5%, 59.75%, 29.75%, 25%, 23.5%, of elderly respectively. [17] Kumar *et al.*, (2015) in their study found overall hypertension 52.8% were the most common morbidity found in geriatric population followed by anaemia 32.8% and diabetes 32.3%<sup>[18]</sup>. Khan *et al.*, (2014) in their study found that insomnia 39.20% were found the most common problem for both males 33.92% and females 48.78%<sup>[19]</sup>. Kumar and Mohammed, (2014) in their study observed that most 54.5% of the elderly people were in 60-64 years age group<sup>[20]</sup>. Morbidities were present in 65.2 % elderly people. Common morbidities among elderly people were related to oral cavity & salivary glands 69.6%; musculoskeletal system 53.4%; eye 39.9%; endocrine, nutritional & metabolic diseases 28.2%; ear & mastoid process 21.1% and skin diseases 19.7%. Mohapatra *et al.*, (2011), in their study found that nearly 62% had vision abnormality while 15.2% suffered from impaired hearing<sup>[21]</sup>. Bhatia, *et al.*, (2007) in their study reported the main health-related problems were disorders of the circulatory system 51.2%, musculoskeletal system and connective tissue 45.7%<sup>[14]</sup>.

In the present study, overall 11.5% elderly had at least one type of morbidity and 22.5% had at least two type of morbidity, while in study population 38.2% elderly don't have any type of morbidity. Relation between number of morbidities and age group were statically significant ( $p < 0.05$ ). In a study by Srinivas and Manjubhashini, (2014) among elderly populations 64% had morbidity, 25% had more than one disease and 36% had no diseases in both the areas. 40.3% in rural areas as compared to 37.2% in urban areas had one disease<sup>[10]</sup>. About 16% in rural areas as compared to 20% in urban areas had two diseases. 9% in rural areas compared to 6.16% in urban areas had three and more diseases. Swami *et al.*, (2002) in their study reported that 88.9% elderly suffered from at least one type of morbidity while 69.9%, 47.3% and 16.9% of the elderly suffered from two, three and four or more type of morbidity respectively<sup>[21]</sup>. In the present study, it was observed that 45.3% elderly population had some type of addiction. Among that 51.6% male elderly had some type of addiction and 38.1% female had some type of addiction. Mundada *et al.*, (2016) in their study found that addiction habits in males' elderly were smokers 29.96% and 18.18% were consuming alcohol. 29.29% and females 45.42% were chewing tobacco. 40% males and 50.6% females had addictions like Hukka, Bhang, betel, and pan, while 34.08% had no addiction<sup>[9]</sup>. Prakash *et al.*, (2016)

in their study found that there were majority of tobacco user among women<sup>[22]</sup>. Alcoholic beverages were consumed by 9.3% men subjects only while 31.5% women were having smoking habit. Here association of smoking with gender was found statistically significant. Prevalence of tobacco chewers among women 16.4% was slightly more in comparison to men 14.9%. Subhprada, (2015) in their study found that 71.43% male patients were known smokers and alcoholics<sup>[23]</sup>. Pallavi *et al.*, (2013) in their study found that among elderly 55.4% were current addicts, 8.8% were ex-addicts and 35.8% were non addicts. Higher proportion of males 70.6% were current addicts compared to females 18.7%<sup>[24]</sup>.

## 5. Conclusions

The present study among elderly in Barabanki district of Uttar Pradesh revealed quite high prevalence, not only psychosocial problems but also other morbidities like visual impairment, musculoskeletal disorders, hypertension, obesity, cardiovascular disease etc. Therefore provision of comprehensive approach for health services along with regular and periodic health check-ups should be made available at village and community level with enhanced community participation. Basic life style modification strategies should be promoted to improve the overall health status among elderly.

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