



Assessment of Quality of Life among Elderly in Eastern Uttar Pradesh, India using WHOQOL-BREF

G.P. Singh*, Mayank Srivastava and Arunabh Tripathi

Department of Community Medicine, IMS, BHU, Varanasi.

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ABSTRACT

The concept of quality of life is very broad and dynamic. We can find several definitions for this term in literature, but all of them take physical, cultural, social and environmental conditions into consideration (C.S. Peranambuco et al. 2012). World Health Organization (WHO) defines quality of life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad concept incorporating an individual's physical health, psychological state, level of independence, social relationships, personal beliefs and relationship with the environmental conditions (WHO 1998).

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Introduction

India is going through vast demographic changes, giving a steep rise to the population of elderly. There have been major occurrences in India that have impacted on the situation of elderly: the decline in fertility and increasing life expectancy. The population of India has approximately tripled during the 50 years, but the number of elderly Indians has increased more than fourfold. The 2001 census has shown that the elderly population (60+) of India accounted for 77 million and census 2011 projections indicate that elderly population has crossed 100 million mark (Agewell Foundation 2011). The increasing number of elderly has a great demand on the health services and social security measures. With fast changes in socio-economic scenario, shifting of traditional joint family to nuclear family and preponderance of individualism in society has made the elderly more vulnerable, lonely, dependent and marginalized. Due to the lack of social security, insurance and health infrastructure in India, the concern for the Quality of Life of elderly becomes more and more prominent.

The concept of quality of life is very broad and dynamic. We can find several definitions for this term in literature, but all of them take physical, cultural, social and environmental conditions into consideration (C.S. Peranambuco et al. 2012). World Health Organization (WHO) defines quality of life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad concept incorporating an individual's physical health, psychological state, level of independence, social relationships, personal beliefs and relationship with the environmental conditions (WHO 1998).

This study tries to assess the impact of different socio-demographic factors on the Quality of Life of elderly in eastern Uttar Pradesh while adapting the WHOQOL-BREF, measurement scale.

Objective:

The objective of this paper is to find out the differentials in the level of Quality of Life by using WHOQOL-BREF, among

the elderly from diverse socio-demographic settings in Eastern Uttar Pradesh, India.

Material and methods:

Study Setting: The study was conducted in rural and urban areas of Eastern Uttar Pradesh, India, which include Four Districts namely Varanasi, Ghazipur, Sant Kabir Nagar and Deoria. Equal sample was taken from rural and urban settings from the mentioned four districts.

Reference Population: Elderly population of age 60 years and above of the mentioned districts from Eastern Uttar Pradesh.

Study Participants: Four hundred individuals aged 60 years and above selected each from rural area and urban area of Eastern Uttar Pradesh, India.

Study Design and Sampling. Sample size for the survey was determined by a theoretical framework which is explained by the formula; $(n = z^2 \times pq / d^2)$

Where, n=desired sample size(unknown),

p=proportion of elderly person occurring in any one setup,

q=proportion of elderly person not occurring in any one setup,

d=degree of the precision of the estimate.

Considering, $p=q=0.5$ (because n is maximised when $p=q=0.5$), $d=.05$ (i.e. the estimate will lie within $\pm 5\%$ from the true value),

At confidence limit of 95%, $z=1.96$.

The study was based on a specially designed sample survey of about 800 elderly people taken from two different setups of society that is from rural and urban. Out of total sample size 400 each were taken from rural and urban setups of eastern Uttar Pradesh. A multistage stratified random sampling procedure was used to select the sampling units.

Inclusion Criteria: People of age 60 years and above and willing to participate in the study with consent.

Exclusion Criteria: Those who were unwilling to participate in the study, refused to give consent and people unable to give interview due to various morbidity conditions.

In case when interviewer was rejected from one respondent, he visited the adjacent house for interview.

Strategy: The study was conducted during August 2011 to June 2012. The data was collected through a specially designed

interview schedule which consisted 2 parts; in the 1st part information regarding socio-demographic profile such as region, sex, age, marital status and level of education of the respondents was recorded. In the 2nd part of interview schedule, quality of life was assessed using WHO Quality of Life-BREF (WHOQOL-BREF) scale. The WHOQOL-BREF is an abbreviated version of the original WHOQOL-100. The WHOQOL is the only quality of life instrument that has been developed for wide range of cultures in 15 international field centres simultaneously including the Madras centre presently Chennai, Tamilnadu, India. The WHOQOL-BREF produces quality of life profile. This scale consists of four domains, physical health, psychological, social relationship and environment. The four domain scores denote an individual's perception of quality of life in each particular domain. Domain scores are scaled in positive direction (i.e. higher scores denote higher quality of life). Each item was rated on five point scale. The raw score of each domain was calculated and then transferred into range between 0=100.

Statistical Analysis: The data were tabulated and analyzed using the statistical package of SPSS 16.0 version. Student t-test and one way ANOVA were applied to compare the mean scores of different groups under the four domains. If some groups showed significant difference in ANOVA test then the post-hoc analysis was done.

Results:

According to table 1, out of total sample of 800 subjects, 400 were taken from each urban and rural setups of eastern Uttar Pradesh. Among urban participants 61.2% were male and 38.8% were female in comparison to 51% male and 49% female in the rural setup. The proportion of the elderly respondents was highest in 60-69 years age group in both 52.2% in urban elderly population and 61.2% in rural elderly population. 58.5% elderly respondents were married in urban area in comparison to 57% in the rural area. Majority of the rural participants (51.8%) never attended school in their whole life in comparison to their urban counterparts (23%). Proportion of elderly respondents who received education above intermediate was higher 29.8% in urban area in comparison to only 6% in rural area.

According to the results in table 2, the mean score of rural elderly in domain of physical was 59.94 ± 21.15 as compared to 56.73 ± 20.95 in urban elderly and the difference between physical health domain was found to be statistically significant ($p=0.031$). However, no statistically significant difference was found in the mean score of psychological domain between these two groups. The mean score of rural elderly in the domain of environment was 53.06 ± 16.57 as compared to 58.94 ± 17.70 in the urban elderly, social relationship, this difference between environmental domains was found to be statistically significant ($P \leq 0.001$). The difference of mean score of social relationship domain was not found statistically significant between urban elderly and rural elderly.

According to the results in table 3, in the urban male, physical health domain mean score was 61.04 ± 20.64 as compared to 49.9 ± 19.64 in urban female. Whereas in rural male, physical health domain mean score was 63.38 ± 20.29 as compared to 56.36 ± 21.49 in the rural female. In both the cases this difference was found to be statistically significant ($P \leq 0.001$). The same trend was followed in psychological, social and environmental domain, urban male scored better than the urban female as well as rural male scored better than the rural female and the differences were statistically significant. Married elderly in both the urban and rural areas scored better than the not

married elderly in all four domains and the difference between the mean scores was found to be statistically significant. The elderly of 60-69 years age group in both the urban and rural areas scored higher than the 70-79 years and 80+ years age group in all four domains and the difference was statistically significant except in environmental domain in rural elderly. Elderly participants of both urban and rural areas showed better performance in all four domains with increasing years of schooling.

Discussion:

In this study rural elderly scored better in domain of physical health than the urban elderly and the difference was found to be statistically significant. While the rural elderly reported lower level of QOL in the domain of environment in comparison to the urban elderly, the difference between environmental domain of these two groups was found to be statistically significant. While in a study conducted on rural and urban elderly population of Wardha district, Maharashtra (Mudey et al 2011) urban elderly reported significantly lower level of QOL in physical and psychological domains than the rural elderly population. The reason behind elderly population living in urban area having lower score than the elderly living in rural area in physical health domain could be the sedentary life style, lowered physical dynamics, exposure to pollution and unhealthy living conditions. Traditional patterns of behaviour are preponderant in rural families in India, which provide rural elderly better status in the family, they are accustomed to live simple life and are less demanding, rural society is an agrarian society and rural elderly work till their body permits. There are studies showing that retirement is closely related to poor health (Batcheler and Napier 1953; Johnson 1958). The urban elderly reported significantly higher level of QOL in environmental domain which might be result of availability of financial security, better accessibility to health care and opportunities for acquiring new information and skills.

In both the urban and rural areas, female elderly reported significantly low scores in all four domains. Sowmiya KR, Nagarani (2012) found similar results in their study conducted in Mettupalayam, a rural area of Tamilnadu. Women in India find themselves in subordinate position to men and are socially, culturally and financially dependent on them, their health and other basic needs are often neglected which results in lower QOL than men.

In all four domains scores of married elderly population of both rural and urban area was higher than those who were presently not married and the difference was statistically significant. While Barau et al (2007) found environmental and social relationship domain to be significantly affected between these two groups.

The young old (60-69 years) have better QOL scores when compared to the old-old (70-79 years) and the oldest-old (80 and above) which are similar to the findings by Sowmiya KR, Nagarani (2012). In this study education seems to be positively associated with QOL scores. Educated elderly have better understanding of their ageing process and awareness about their changing needs.

Recommendation:

(1) People with 60+ age should be encouraged to get involved in physical activities like performing household tasks, gardening and physical exercise to a certain limit in which they are comfortable, such activities will help elderly to maintain their physical health.

Table: 1 Socio- demographic profile of elderly

Socio-demographic characteristics	Urban n=400	Rural n=400
Sex		
Male	245 (61.2)	204 (51.0)
Female	155 (38.8)	196 (49.0)
Marital status		
Married	234 (58.5)	228 (57.0)
Not married	166 (41.5)	172 (43.0)
Age group (years)		
60-69	209 (52.2)	245 (61.2)
70-79	143 (35.8)	99 (24.8)
80+	48 (12.0)	56 (14.0)
Educational status		
Never attended school	92 (23.0)	207 (51.8)
Upto primary	72 (18.0)	101 (25.2)
Primary to intermediate	117 (29.2)	68 (17.0)
Above intermediate	119 (29.8)	24 (6.0)

Table: 2 Comparison between the different domain score of quality of life among rural and urban elderly

QOL Domains	Nature of residence	Mean score	Standard deviation	P value
Physical health	Urban	56.73	20.95	.031
	Rural	59.94	21.15	
Psychological health	Urban	50.78	19.61	.324
	Rural	52.19	20.83	
Social relationship	Urban	38.34	16.00	.699
	Rural	37.90	15.86	
Environment	Urban	58.94	17.70	<.001
	Rural	53.06	16.57	

Table: 3 Assessment of the difference between mean score of domains of WHOQOL-BREF according to different socio-demographic factors

Socio-demographic factors			Mean score of domain					
	Physical		Psychological		Social		Environmental	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Sex								
Male	61.04 (20.64)	63.38 (20.29)	55.20 (18.65)	57.02 (20)	42.95 (16.88)	41.28 (16.88)	61.27 (17.45)	55.43 (15.90)
female	49.92 (19.65)	56.36 (21.49)	43.80 (19.12)	47.17 (20.52)	31.06 (14.48)	34.39 (13.91)	55.26 (17.51)	50.60 (16.93)
P value	<.001	.001	<.001	<.001	<.001	<.001	.001	.003
Marital Status								
Married	65.05 (18.73)	70.01 (16.54)	58.74 (16.46)	61.11 (17.52)	43.38 (15.35)	43.46 (15.70)	62.18 (16.77)	57.69 (15.39)
Not married	44.99 (18.15)	46.59 (19.13)	39.55 (18.19)	40.37 (18.92)	31.23 (14.14)	30.54 (12.79)	54.37 (18.01)	46.94 (16.13)
P value	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Age								
60-69(I)	69.98 (16.11)	68.43 (17.16)	61.69 (15.20)	58.67 (18.44)	45.03 (15.54)	40.71 (16.85)	62.52 (16.89)	55.21 (15.35)
70-79(II)	45.22 (15.13)	52.98 (19.23)	41.76 (16.84)	46.82 (21.42)	31.34 (13.80)	35.16 (14.79)	55.69 (18.22)	54.30 (18.55)
80+(III)	33.29 (11.89)	35.11 (15.66)	30.15 (13.16)	33.36 (14.86)	30.04 (10.58)	30.46 (8.36)	53.04 (16.42)	41.48 (13.21)
P value	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Post hoc Test*	(I,II), (I,III), (II,III)	(I,II), (I,III), (II,III)	(I,II), (I,III), (II,III)	(I,II), (I,III), (II,III)	(I,II), (I,III)	(I,II), (I,III)	(I,II), (I,III)	(I,III), (II,III)
Education								
Never attended school (I)	47.23 (20.63)	53.40 (21.57)	35.43 (15.80)	42.46 (18.55)	25.65 (11.26)	29.57 (12.47)	39.76 (12.42)	42.70 (13.15)
Upto primary (II)	53.32 (22.63)	61.25 (18.79)	44.14 (17.98)	55.66 (18.60)	35.36 (15.34)	40.62 (13.77)	47.94 (13.79)	58.12 (12.80)
Primary to intermediate (III)	59.80 (19.30)	73.51 (15.57)	55.61 (16.32)	70.40 (12.67)	39.50 (15.58)	54.06 (12.39)	64.26 (10.57)	70.09 (6.70)
Above Intermediate (IV)	63.11 (18.82)	72.38 (15.96)	61.92 (17.12)	69.92 (16.10)	48.81 (12.05)	52.58 (6.57)	75.20 (7.79)	73.00 (4.57)
P value	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Post hoc Test*	(I,III), (I,IV), (II,III), (II,IV)	(I,II), (I,III), (I,IV), (II,III), (II,IV)	(I,II), (I,III), (I,IV), (II,III), (II,IV), (III,IV)	(I,II), (I,III), (I,IV), (II,III), (II,IV)	(I,II), (I,III), (I,IV), (II,III), (II,IV), (III,IV)	(I,II), (I,III), (I,IV), (II,III), (II,IV)	(I,II), (I,III), (I,IV), (II,III), (II,IV), (III,IV)	(I,II), (I,III), (I,IV), (II,III), (II,IV)

* The groups mentioned in separate brackets show significant difference between them on the basis of LSD test.

(2) Programmers and policy makers should ensure the availability of geriatric health centres and rehabilitation centres within every community.

(3) Traditional role of respecting and caring elders should be reinforced at the primary level. Adequate measures such as legal provisions against abuse and harassment should be taken to ensure the social security of elderly.

Conclusion:

The process of ageing and problems associated with it cannot be totally prevented but suitable efforts can be made that would slow down the process. The present study was an endeavour to assess the effect of different socio-demographic factors on quality of life among the elderly in eastern Uttar Pradesh. Results of the present study highlight gender, marital status, age and education as important factors affecting the quality of life. Hence, the study highlights the need to prioritize education, health-care facilities, financial and social security for preserving the quality of life among elderly.

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