

Assessment of Quality of Life among Rural and Urban Elderly Population of Wardha District, Maharashtra, India

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ABSTRACT All aspects of health status: life style, satisfaction, mental state or well-being together reflect the multidimensional nature of Quality of Life (QOL) in an individual. India has acquired the label of “an aging nation” with 7.7 percent of its population being more than 60 years old. Changes in population structure will have several implications for health, economic security, family life and well being of people. The present study was carried out with two-fold objectives to assess the difference of quality of life between rural and urban elderly population and to find out the association between the socio-demographic profile and quality of life of elderly population. The community based cross sectional study was conducted on 800 elderly subjects selected from urban (n= 400) and rural (n= 400) using multistage simple random technique. Interviews were conducted using pre-tested questionnaire by trained interviewers to collect data. The WHO-QOL BREF was used to assess the quality of life. The study showed that the elders living in the urban community reported significant lower level of quality of life in the domains of physical 51.2±3.6 and psychological 51.3±2.5 than the rural elderly populations. The rural elderly population reported significant lower level of quality of life in the domain of social relation 55.9±2.7 and environmental 57.1±3.2 than urban population. The difference between the quality of life in rural and urban elderly population is due to the difference in the socio-demographic factors, social resource, lifestyle behaviors and income adequacy.

INTRODUCTION

Ageing is a normal, biological and universal phenomenon. Ageing of the population is occurring throughout the world, more rapidly in developing countries. United Nations considered 60 years to be dividing line between ‘old age’ and ‘middle and younger age group’. threshold of old age (Meisheri 1992). In most of the gerontological literature, people above 60 years of age are considered as ‘old’ and constituting the ‘elderly’ segment of the population (Prakash 1999).

In India proportion of older persons has risen 5.5 percent in 1951 to 6.5 percent in 1991, 7.7 in 2001 and projected 12 percent in 2025 (Vinod Kumar 2003). Changes in population structure

will have several implications on health, economy, sec-urity, family life, well-being and Quality of Life of people.

All the aspects of “Health status”, “Life-style”, “Life satisfaction”, “Mental health” and “Well-being” together reflects the multidimensional nature of Quality of Life in an individual (Barua 2007). Quality of life is a holistic approach that not only emphasizes on individuals’ physical, psychological, and spiritual functioning but also their connections with their environments; and opportunities for maintaining and enhancing skills. Ageing, along with the functional decline, economic dependence, and social cut off, autonomy of young generation, compromises quality of life. The dilemma of dichotomy of longevity on one hand and enormously compromised QOL is indeed perplexing. Reluctance in caring of elderly and concept of QOL is not yet popular in India. Study done by Verma (2008) shows that total QOL in urban area is significantly better than rural. But as per our assumption, in rural areas, the elderly work till their body permits they experience power, prestige in family and social life and economic

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independence while in urban areas, the elderly work for certain age limit as per their jobs, after which they suffer from economic insecurity, loss of power leading to low quality of life. So, we are trying to explore the domain in which rural – urban population are lacking and recommend the measures to improve the quality of life.

Objectives

- To assess the difference in Quality of Life between rural and urban slum elderly population in study district.
- To find out the association between the socio-demographic factors and Quality of Life of elderly population in study district.

MATERIAL AND METHODS

Study Setting: The study was conducted in rural and urban slum areas of Wardha district which include eight villages under Primary Health Center in Seloo block and eight urban slum areas of Wardha city which is located in Maharashtra, India.

Reference Population: Elderly population of age 60 years and above of Wardha district

Study Participants: Four hundred individuals aged 60 years and above selected each from rural area of Seloo block and urban slum area of Wardha city in Wardha district of Maharashtra, India

Study Design and Sampling: A community based cross-sectional study was conducted and participants were selected using multistage simple random sampling technique.

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

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

Strategy: The study was conducted during January 2008 to December 2008. Data was collected using WHOQOL BREF scale (Field trial, WHO 1996) after obtaining the permission from the Institutions Ethics Committee. The participants were interviewed at their homes after taking a written consent in local language. Information was collected on socio-demographic factors and four domains, that is, physical, psychological, social relationship and environmental.

For comprehensive assessment, one item from each of 24 facets contained in the WHOQOL-100 had been included; in addition two items from the QOL and general health facets were also included. Each item was rated on five point scale (1-5). The raw score of each domain was calculated, and then transferred into range between 0-100. Five percent of questionnaires were re-checked by another author to assess the quality of data.

Statistical Analysis: The data were tabulated and analyzed using the statistical package of SPSS 13.0 version. Proportion test was used to test the significant at $P < 0.05$ and $P < 0.01$

RESULTS

Among 400 rural participants, 44 percent were males and 56 percent females as compared to 41 percent males and 59 percent females in urban slums. The proportion of rural elderly in the age group 60-69 years was 45.5 percent and urban slum elderly in the age of 70-79 was 42.2 percent (Table 1).

The mean age of study participants was 68.84 ± 7.06 years, of which females were 71.81 ± 7.49 years, which was higher than that of the males at 68.29 ± 6.31 years. Majority of the rural participants 74.75 percent were illiterate as compared to urban slum participants (49 percent).

In the urban male, psychological domain was 51.14 ± 6.69 as compared to 51.59 ± 7.27 in urban female. This difference in psychological domain was found to be statistically significant ($P < 0.001$). However, no statistically significant difference was found in psychological domain between the rural male and female. The score for environmental domain was 58.52 ± 7.97 in rural male as compared to 56.13 ± 7.64 in rural female. The association between environmental domain and sex was found to be statistically significant at $P < 0.001$ amongst the rural population.

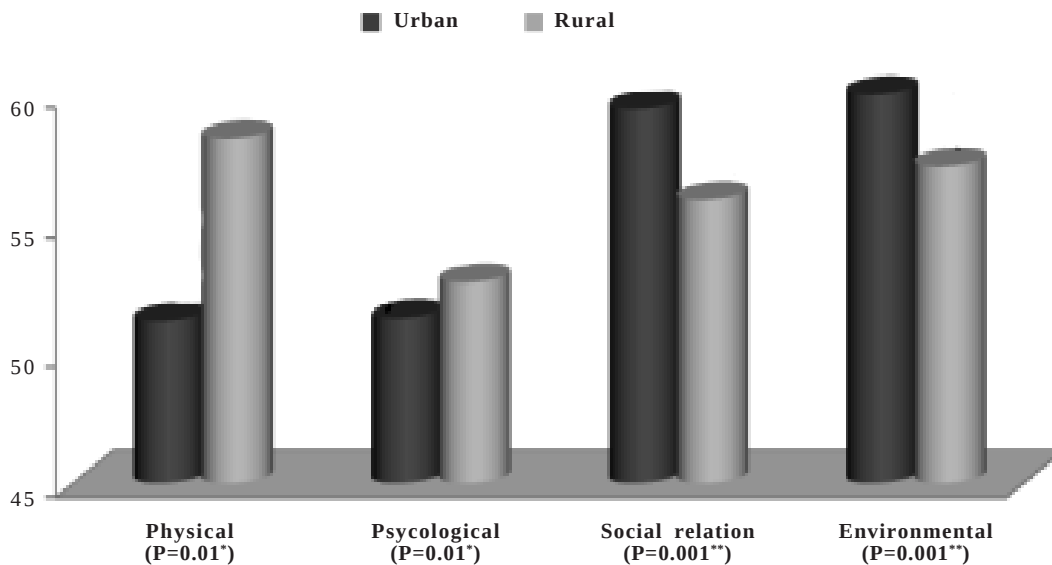
The physical domain score was 61.95 ± 10.72 amongst 60-69 years as compared to 55.18 ± 9.71 amongst geriatric above 70 years in rural areas. The psychological domain score amongst rural elderly between 60-69 years was 55.08 ± 8.48 as compared to 50.78 ± 7.26 in those above 70 years of age. The difference in physical and psychological domain scores amongst rural population with respect to age was statistically significant. No significant difference was found for urban slum population (Fig. 1).

Table 1: Association between socio-demographic factors and mean score of domains among the study participants

Socio-demographic factor	Mean score of domain							
	Physical		Psychological		Social relationship		Environmental	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Sex								
Male	58.07 (10.13)	50.97 (7.08)	52.19 (8.18)	51.14 (6.99)	55.95 (7.56)	59.39 (7.46)	58.52 (7.97)	60.28 (7.51)
Female	58.42 (11.45)	51.55 (7.23)	53.17 (8.02)	51.59 (7.27)	55.86 (7.38)	59.44 (5.74)	56.13 (7.64)	59.57 (7.98)
P value	0.74	0.41	0.22	0.001*	0.60	0.95	0.00**	0.36
Age								
60-69	61.95 (10.72)	51.34 (7.11)	55.08 (8.48)	52.29 (7.21)	55.7 (7.67)	59.21 (6.11)	57.32 (8.16)	60.32 (8.09)
≥ 70	55.18 (9.71)	51.2 (7.17)	50.78 (7.26)	50.95 (7.04)	56.07 (7.31)	59.5 (6.96)	57.07 (7.70)	59.79 (7.56)
P value	0.00**	0.85	0.00**	0.085	0.661	0.66	0.764	0.54
Marital Status								
Single	59.35 (10.78)	51.65 (7.54)	52.11 (8.42)	51.61 (7.23)	55.8 (7.60)	59.98 (7.29)	56.8 (7.78)	60.04 (7.96)
Married	57.63 (10.55)	50.8 (6.68)	53.81 (7.89)	51.06 (6.99)	55.96 (7.27)	58.8 (5.97)	57.41 (8.14)	59.84 (7.50)
P value	0.11	0.13	0.013*	0.4	0.85	0.09	0.45	0.8
Education								
Illiterate	57.01 (9.69)	51.35 (7.39)	51.54 (7.08)	51.21 (7.36)	56.14 (7.34)	58.96 (7.78)	57.29 (7.65)	60.47 (8.14)
Literate	61.98 (12.65)	51.11 (6.87)	56.29 (9.84)	51.51 (6.83)	55.21 (7.85)	59.95 (5.14)	56.86 (8.65)	59.34 (7.20)
P value	0.00**	0.73	0.00**	0.67	0.24	0.129	0.657	0.155

* Significant at 5 % level (P<0.05),

** Significant at 1 % level (P<0.001)

**Fig. 1. Comparison between the different domain score of quality of life among rural and urban slum participants**

*Figure in parenthesis indicates standard deviation

* Significant at P <0.05

** Significant at P <0.001

The scores for psychological domain amongst married elderly population (53.82 ± 7.89) was higher than single or widowed elder people (52.11 ± 8.42) and was found to be statistically significant.

The rural literate are higher (61.98 ± 12.65) as compared to the illiterate rural in the physical domain (57.01 ± 9.69). The scores for psychological domain was also higher for rural literate (56.29 ± 9.84) as than to the illiterate population from rural area in (52.54 ± 7.08). The differences in the rural area with respect to educational status was statistically significant for physical and psychological domains (Table 1), whereas such difference was not found among urban population.

DISCUSSION

The proportion of rural elderly in the age group 60-69 years was 45.5 percent, 70-79 years was 39.3 percent and urban slum elderly in the age of 70-79 was 42.2 percent. It shows that longevity among urban slum is more than the rural area. Studies conducted in rural southern India showed that elderly population between 70-79 years ranged from 51.7 percent in Guntur district to 39 percent in Villupuram district (Venkateswarlu et al. 2003).

The mean age of the females was 71.81 ± 7.49 years, which is higher than that of the males at 68.29 ± 6.31 years.

Majority of the rural participants (74.75 percent) were illiterate as compared to urban slum participants (49 percent). In a study conducted in another rural area of Wardha by Kishore and Garg (1977), the percentage of illiterates was found to be 66.5 percent.

The elders living in the urban slum area have significantly lower level of Quality of Life in the domains of physical $\{51.2 \pm 7.1\}$ score and psychological $\{51.3 \pm 7.12\}$ score than the rural elderly populations. Rural elderly enjoy the power and have positive feeling about future due to traditional rituals. There are several studies showing that retirement is closely related to poor health (Batcheler and Nepier 1953; Johnson 1958). This contradicts the study done by Verma (2008) which says that rural elderly have more physical problems. This is true due to lack of health facility, unawareness and poor diet but the QOL is the subjective feeling of individual. Urban populations are aware of their disease condition and are more concerned for health problems while in

rural area they just ignore it considering being natural process. The rural elderly population have a significant lower level of quality of life in the domain of social relationship (55.9 ± 7.48) score and environmental (57.1 ± 7.91) score. Urban elderly are actively involved in some groups that give them opportunity to socialize themselves. Physical safety and security, home environment, financial resources, health and availability and quality of social care are very high in urban areas. So they report high on environment.

Rural areas showed statistical significant difference in physical and psychological domain with respect to age. It showed that as the age increases, the Quality of Life decreases in physical and psychological domain, which are similar to the findings by Barua et al. (2007) which state that age was significantly associated with physical, psychological and social domain. No significant difference was found for urban slum population.

The scores for psychological domain amongst married elderly population was higher than single or widowed elder people, and was found to be statistically significant while Barua et al. (2007) state that environmental and social domain is significantly affected. In a cross-sectional study in Kerala, the author Bhattathiri found that being widowed or single was associated with poor QOL (Bhattathiri 2007).

In rural area, the literate elderly people had better Quality of Life as compared to illiterate people, which was statistically significant for physical and psychological domains. Bhatia et al. (2007) conducted a study in 10 villages of district Ludhiana, Punjab, reported that Quality of Life was found to be significantly associated with education while according to Barua et al. (2007) it is not associated. Literates have better understanding of their ageing process and better accommodate to lifestyle changes. Average score for total Quality of Life in present study is 55.85 similar to another study done in south India (Varma et al. 2007) while in Canada the total QOL score is 75 (Hopman et al. 2000). Functional capacity, healthy active lifestyle, good housing, social relationship along with economic status affect the Quality of Life.

CONCLUSION

The Quality of Life of rural elderly population was better in physical and psychological domains

whereas QOL in urban slum elderly was better in social relationship and environmental domain. This may be because of socio-demographic factors, chronic diseases, social resources, life style behaviors and financial resources

RECOMMENDATIONS

1. Periodic health check-ups should be organized for the elderly population so as to provide comprehensive health service through available infrastructure. Medical officer at PHC should be trained in geriatric.
2. Community health programmes like elderly club, effective participation, rehabilitation etc. to be organized for better care and support.
3. Integration through medicine and community (family, care taker, voluntary organizations) for improving Quality of Life of elderly.

To improve the quality of life after the age 60, efforts have to start at least from the age of 30. Preventive maintenance is wiser and less expensive than crisis management. Right mental attitude and a sound physical health in adult life and middle age period are the keys for enjoying the active ageing.

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