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Quality of life among the geriatric population in a rural area of Dakshina Kannada, Karnataka, India

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ABSTRACT

Background: Ageing is an inevitable developmental phenomenon bringing along a number of changes in the physical, psychological, hormonal and the social conditions. These changes are expected to affect the quality of life of the elderly.

Methods: In the rural area, cross-sectional community-based study was conducted among elderly population aged 60 years and above. WHO Quality of Life BREF (WHOQOL BREF) questionnaire was used to assess quality of life.

Results: Among the study population, the mean perceived overall quality of life scores were 62.1±16.4 and the mean perceived overall health status scores were 59.8±17.4. Males were found to have better social relations compared to females. Among <70 years better physical domain scores were seen compared to ≥70 years. Among the literates and currently married elderly, all the domain scores were higher compared to illiterates and those without partners respectively.

Conclusion: All the domains of quality of life were significantly affected for those who were illiterate or were single. Males were found to have better social relations compared to females. Such perceived quality of life study helps to highlight the inequalities among the elderly, which can be targeted to improve the quality of life.

Keywords: Quality Of Life, WHOQOL BREF, Elderly, Geriatric, Rural

INTRODUCTION

'National Policy on Older Persons' 1999 adopted by Government of India defines 'senior citizen' or 'elderly' as a person who is of age 60 years or above[1]. There has been a progressive increase in proportion of elderly population in India from 6.8% in 1991 to 8.6% in 2011[2] and projected to increase to 19% in 2050[3].

Ageing is an inevitable developmental phenomenon bringing along a number of changes in the physical, psychological, hormonal and the social conditions[4]. There are changes in the appearance, slowing down of functioning of body organs, changes in day to day interests, attitude and life styles. Health problems begin to plague the elderly[5]. These changes are expected to affect the quality of life of the elderly. As life expectancy continues to rise, one of the greatest challenges of public health is to improve the quality of later years of life.

World Health Organization (WHO) defines Quality of Life (QOL) as "Individual's perception of their

position in life in context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns"[6]. The terms QOL and health related quality of life (HRQOL) are often used interchangeably and since QOL is a broader construct encompassing HRQOL, global experts developed the WHO Quality of Life (WHOQOL) instrument that simultaneously assesses QOL and HRQOL[7]. The fractioning of the WHOQOL into domains (Physical, Psychological, Social Relations, and Environmental) can contribute to identifying which aspects of an individual's life are more worrisome and which require intervention[8].

This study was done to assess quality of life and factors associated with QOL among elderly population aged 60 years and above residing in the rural community.

MATERIAL AND METHODS

A cross-sectional community-based study was conducted among elderly population aged 60 years and above residing in the rural field practice area of A.J. Institute of Medical Sciences & Research Centre coming under Bantwal Taluk limits in Dakshina Kannada district, Karnataka, India, after taking approval from institutional ethics committee. The rural health training center has adopted 6 different localities (areas) under field practice area, which includes a total population of 6400.

Complete enumeration of the total elderly population in the study area was done as per the family register maintained by the rural health training centre. Totally 375 elderly were included in the study after taking the informed consent. Study was done over a period of six months (1 July 2013 to 31 Dec 2013).

Quality of life was assessed using WHO Quality of Life BREF (WHOQOL BREF) questionnaire[9]. In this study, Validated Kannada version of the WHOQOL BREF questionnaire was used with due permission from the division of Health Statistics and Informatics, WHO. This questionnaire contained 26 questions and is divided into four domains: Physical (perception of the individual regarding one's physical condition); Psychological (perception of the individual regarding one's affective and cognitive condition); Social relations (perception of the individual regarding social relations and social roles adopted in life); Environmental (perception of the individual regarding diverse aspects related to the environment in which one lives). In addition to the four domains, the instrument presents two questions of self-perception (Global Domain), with one referring to the quality of life and the other to satisfaction regarding one's health. The scale of values for each domain can vary from zero to 100 points, indicating that the higher the score, the better the quality of life in that domain.

Statistical tests

The data was entered onto a computerized Excel (Microsoft Excel 2007) spreadsheet. Subsequently it was analyzed using SPSS (Statistical Package for Social Sciences) version 12. Mann-Whitney U test was used for the associated factors to find out statistical difference between groups. The significance level was set at $p<0.05$.

RESULTS

The mean age of the study population was 66.86±6.3 years and 79.7% belonged to 60-69 years of age group. Out of 375 elderly participants, males were 42.1% and females were 57.9%. The majority of the elders in the study area were illiterate (62.9%). Majority (66.1%) were having Below poverty line (BPL) cards. It was also noted that 38.9% of the population were widow/widowers (36% widows and 2.9% were widowers), 0.8% divorced/separated and 0.5% were unmarried. Majority (68.3%) were unemployed and 71.5 % were living in a joint family setup.

Table 1. Descriptive analysis of the Physical, Psychological, Social and Environmental domains of elderly

	Physical	Psychological	Social	Environmental
Minimum	25	25	00	25
Mean (SD)	63.5 (12.2)	58 (11.2)	61.7 (11.2)	60.6 (10.8)
25th Percentile	57.1	50	50	53.1
Median	64.3	58.3	66.7	62.5
75th Percentile	71.43	66.7	66.7	68.8
Maximum	100	83.3	75	68.8

Table 2. Factors associated with physical and psychological domains of quality of life among elderly

Variables		Physical domain			Psychological domain		
		Median value	Mean rank score	p value	Median value	Mean rank score	p value
Sex	**Male**	64.29	195.3	0.26	58.33	193.51	0.39
	Female	64.29	182.67		58.33	183.99	
Age group(yrs)	**60-69**	67.86	196.4	0.003	58.33	191.26	0.25
	≥70	60.72	154.95		58.33	175.19	
Education	**Illiterate**	64.29	173.1	<0.001	58.33	164.14	<0.001
	Literate	67.86	213.29		66.67	228.52	
Employment status	**Unemployed**	64.29	179.19	0.02	58.33	182	0.113
	Employed	67.86	206.96		62.50	200.91	
Marital status	**Married**	67.86	202.42	0.002	62.50	206.89	<0.001
	Alone	64.29	166.62		58.33	159.98	
Ration Card holder	**APL card**	67.86	197.99	0.199	62.50	212.65	0.002
	BPL card	64.29	182.89		58.33	175.38	
Type of family	**Nuclear**	67.86	194.95	0.43	58.33	194.97	0.43
	Joint family	64.29	185.23		58.33	185.22	

p value analysed by Mann-Whitney U-test.

The mean perceived overall quality of life scores in the study population were 62.1±16.4 and the mean perceived overall health status scores in the study population were 59.8±17.4.

When male and female gender difference were analyzed, males were found to have better social relations compared to females (p=0.03) and among other domains no statistically significant difference was observed. Among <70 years better physical domain scores were seen compared to ≥70 years (p=0.003) and in other domains no statistically significant difference was observed. Among the literates and currently married elderly, all the domain scores were higher compared to illiterates (p=<0.001) and those without partners respectively (p<0.05).

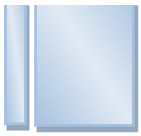

Table 3. Factors associated with social and environmental domains of quality of life among elderly

Variables		Social domain			Environmental domain		
		Median value	Mean rank score	p value	Median value	Mean rank score	p value
Sex	Male	66.67	206.85	0.03	62.50	194.17	0.35
	Female	66.67	174.27		62.50	183.51	
Age group (yrs)	60-69	66.67	187.96	0.99	62.50	186.91	0.69
	≥70	66.67	188.14		62.50	192.30	
Education	Illiterate	58.33	165.54	<0.001	59.38	163.78	<0.001
	Literate	66.67	226.14		65.63	229.12	
Employment status	Unemployed	66.67	185.10	0.43	62.50	187.96	0.93
	Employed	66.67	194.24		62.50	188.08	
Marital status	Married	66.67	209.18	<0.001	62.50	201.39	<0.001
	Alone	58.33	156.59		59.38	168.13	
Ration Card holder	APL card	66.67	213.26	0.001	65.63	225.53	<0.001
	BPL card	62.50	175.06		59.38	168.78	
Type of family	Nuclear	66.67	193.71	0.51	62.50	188.06	0.1
	Joint family	66.67	185.72		62.50	187.98	

p value analysed by Mann-Whitney U-test.

Employed participants had a better physical domain score compared to unemployed participants (p=0.02) while in the other domains no statistically significant difference was observed. Among the BPL card holders, poor psychological, social and environmental domain scores were seen as compared to APL card holders (p<0.05) while no significant difference was seen in physical domain scores. No statistically significant difference were seen in all the domain scores between nuclear and joint family (p>0.05).

DISCUSSION

In our study the mean perceived quality of life scores in the study population were 62.1±16.4 and the mean perceived overall health status scores were 59.8±17.4. This was higher than the study done in a rural area in Tamil Nadu (49.1±21.56 and 39.8± 21.56 respectively)[10].

In the study done at Karkala, Karnataka, it showed that of the two age groups of 60-69 years and ≥70 years were found to differ significantly in the domains of physical, psychological and social relations.[11] But in our study only for physical domain such relationship was found. In the above mentioned study, the difference between the males and females was not found to be statistically significant for any of the four domains, similar relationship was seen in our study except for social domain score[11]. In the study done at Punjab, quality of life was found to be significantly associated with education[12]. Similar results were also seen in our study which might be because of better occupation and higher socioeconomic status among literates compared to illiterates.

In the study at rural Tamil Nadu, the quality of life was better among those elderly who are doing or involved in some work activity[13]. Similar results were also seen our study. The difference observed may be because employed participants might be having more physical activity compared to the unemployed participants.

In the study by Sowmiya et al, it showed that living with their spouse in general improved their quality of life and wellbeing[10]. Similar results were also seen in our study. In the study conducted in North India, it is

noted that as household size increased, the social support to the elderly person also increased, which in turn improved the QOL of the subjects[14]. But in our study no significant difference was seen between joint and nuclear family.

CONCLUSION

Among the study population, the mean perceived overall quality of life scores were 62.1±16.4 and the mean perceived overall health status scores were 59.8±17.4. The QOL domain scores worsened as age increased. Males were found to have better social relations compared to females. All the domains of quality of life were significantly affected for those who were illiterate or were single. Such perceived quality of life study helps to highlight the inequalities among the elderly, which can be targeted to improve the quality of life.

CONFLICTS OF INTEREST: The authors declare no conflict of interest. The study was not funded by any agency.

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