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Quality of life of geriatric population in rural block of Haryana

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Background: Population ageing refers to increasing share of older persons which has poised to become one of the most significant social transformations of the twenty-first century. This study aims to assess quality of life (QOL) of elderly in rural area. **Methods**: This was an observational study with cross-sectional design carried out in 400 elderly participants (60 years and above) in a rural area of district Jhajjar, Haryana. WHOQOL-BREF scale was used. Data entry and analysis was performed using SPSS version 20.0. **Results**: More than half (55%) of the study participants were in the age group of 60-65 years. 52.5% participants were females. Mean score of environmental domain was highest (62.72±14.18), followed by physical health domain (60.77±15.82). The domain which had the least mean score was social relationships (51.98±18.61). Mean scores of males in all domains were found higher than females and the difference in mean score was statistically significant ($p < 0.05$), which indicates better QOL of males compared to females. **Conclusions**: Most of the elderly people (53.8%) had average quality of life. Most of the females (64.8%) had average and 47.9% males had good quality of life. The subjects who were illiterate, financially dependent, having any health problem, of lower socio-economic class, living without partner, unemployed/homemaker had poor quality of life.

Keywords: Elderly, Quality of life, Domains, WHOQOL-BREF

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Introduction

World's population is ageing and virtually every country in the world is experiencing growth in the number and proportion of older persons in their population. Population ageing refers to increasing share of older persons which has poised to become one of the most significant social transformations of the twenty-first century [1]. Ageing is not merely a matter of accumulating years but a process of "adding life to years, not years to life." The world health day theme in 2012 was "Good health adds life to years". Old age cannot be uniformly defined for all, as the concept of ageing carry different meaning in different societies.

The United Nations uses 60 years to refer to older people. But in many developed countries, the age of 65 years is used as a reference point for older persons as this is the age at which persons become eligible for old-age social security benefits [1]. In India, as per the "National Policy on Older People", senior citizen is defined as a person who is 60 years old or above [2]. In 1950, globally 205 million people were aged 60 and above, reaching 810 million in 2012.

Between 2015 and 2030, the number of people in the world aged 60 years or over is projected to grow by 56 per cent, from 901 million to 1.4 billion, and by 2050, the global population of older persons is projected to be more than double its size in 2015, reaching nearly 2.1 billion [1]. Globally, the number of people aged 80 years or over, the "oldest-old" persons, is growing even faster than the number of older persons overall.

World Health Organization defined quality of life as "an individual's perception of life in the context of culture and value system in which he or she lives and in relation to his or her goals, expectations, standards and concerns" [3].

It is thus a broad concept covering the individual's physical health, mental state, level of independence, social relationships, personal beliefs and their relationship to salient features in the environment [4]. It is evident that the quality of life, in addition to being multidimensional, must take into account the person's life experience, how they feel, and how they interpret their lives. Moreover, current studies suggest that QOL is more related to a personal sense of happiness and subjective life satisfaction than to objective problems such as physical functioning [5,6].

This trend has made self-ratings of QOL essential, which is consistent with Diener et al statement: "People react differently to the same circumstances, and they evaluate conditions based on their unique expectations, values, and previous experiences" [7].

Support for the subjective measurement of QOL comes from WHOQOL Scale [8].

Material and Methods

Type of study: A descriptive cross-sectional study was conducted in area served by CHC Dighal, having 5 PHCs. Out of these PHCs two were selected by simple random sampling and from each PHC, 2 sub centres were selected.

Sample size: The sample size was calculated as 400 subjects using the prevalence of good quality of life in geriatric population to be 34% and allowable error of 15% [9]. Sub-centre wise list of geriatric persons who were 60 years and above was prepared with the help of MPHW from village information and survey register. 100 study subjects were selected by simple random sampling from each sub-centre area.

Informed written consent was obtained from the respondent before inclusion in the study. The study subjects were contacted through house to house visit by the investigator himself.

If the investigator was not able to contact the selected subject during two consecutive home visits, another study subject was selected randomly. From each household only one study subject was enrolled for the study.

Data was collected on socio-demographic factors that include age, sex, education, occupation and marital status using a pre-tested semi-structured schedule (Annexure-2).

Socio-economic status was determined using Modified B G Prasad scale [10] and QOL was assessed by using WHOQOL-BREF scale (Annexure-3) [3]. The questions of different domains of the instrument were scored according to Likert response scale.

The raw scores of all 4 domains were converted into final scores which lie between 0-100 (the higher the score, the better is the supposed quality of life of elderly for that domain). Overall Quality of life was calculated by sum of final scores of all four domains (Physical, Psychological, Social relationships, Environmental) and converting it into scale of 0-100 [3].

Final score (0-100) was further divided into 5 categories to identify level of quality of life in the study (Very Poor: 0-20, Poor: 20-40, Average (Neither poor nor good): 40-60, Good :60-80Very Good: 80-100,) [11].

Statistical analysis: Data analysis was performed using Statistical Package for Social Sciences (SPSS) version 20.0 software using appropriate tests such as Chi-square.

Results

Out of 400 study subjects, 52.5% were females. 73.5% study subjects belonged to general category and 99.5% were Hindu by religion. 69.5% were currently married followed by widowed (29%). 65.5% of study subjects were living with partner.

45.2% study participants were illiterate while 27% participants were educated up to primary school, followed by secondary school (18.3%) and senior secondary school (6.0%). 50.2% participants were unemployed/homemaker followed by farmer/people related to agriculture (30.3%). 24.3% participants belonged to lower middle class followed by upper lower (23.8%) and upper middle class (19.7%).

37.8% participants were financially dependent on others for their living. 55% were currently suffering from any health problem while 22.5% family members of study participants were suffering from health problem. (Table 1)

Table-1: Distribution of study subjects by socio-demographic variables (n=400).

Socio-demographic variables	Frequency (%)
Gender	
Male	190 (47.5)
Female	210 (52.5)
Age group (in years)	
60-65	220 (55)
65-70	69 (17.3)
70-75	62 (15.5)
75-80	20 (5.0)
>80	29 (7.2)
Caste	
General	294 (73.5)
Backward Classes	59 (14.8)
Scheduled Castes/scheduled Tribes	47 (11.8)
Religion	
Hindu	398 (99.5)
Muslim	2 (0.5)
Sikh	0 (0)
Christian	0 (0)
Marital status	
Single/ Unmarried	2 (0.5)
Married	278 (69.5)
Separated	1 (0.3)
Divorced	3 (0.8)
Widowed	116 (29.0)
Type of family	
Joint	295 (73.8)
Nuclear	105 (26.2)
Education	
Post-graduation and above	2 (0.5)
Graduation / Professional degree	12 (3.0)
Senior secondary	24 (6.0)
Secondary	73 (18.3)
Primary	108 (27.0)
Illiterate	181 (45.2)
Occupation	
Unemployed & Housewife	201 (50.2)
Agriculture / Farmer	121 (30.3)
Retired	29 (7.2)
Shopkeeper	9 (2.3)
Laborer	11 (2.8)
Private work	29 (7.2)
Socioeconomic Status	
Upper	73 (18.2)
Upper middle	79 (19.7)
Lower middle	97 (24.3)
Upper lower	95 (23.8)
Lower	56 (14.0)
Living with partner	263 (65.5)
Residing with children	355 (88.5)
Financial dependent	151 (37.8)
Having any health problem	220 (55.0)
Family member having any health problem	90 (22.5)

Mean score of environmental domains was highest (62.72±14.18), followed by physical health (60. 77±15.82). The domain which had least mean score was social relationships (51.98±18.61) (Table 2)

Table-2: Mean scores of individual domains (n=400).

Domain	Mean score	Standard deviation
Physical health	60.77	15.815
Psychological	52.18	13.084
Social relationships	51.98	18.611
Environmental	62.72	14.180

53.2% males had either good or very good QOL as compared to 25.3% females and the association of QOL with gender was found statistically significant ($p < 0.05$).

51.7% of study participants in general category, 49.2% in backward classes, 72.3% in schedule castes/schedule tribes had average QOL. Statistically significant association was observed between QOL and caste ($p < 0.05$). 65.5% participants were living with partners.

Among them 48.7% had average QOL followed by 41.1% who had good quality of life. 24.8% had good quality of life who were living without partner. A statistically significant association ($p < 0.05$) was found between QOL and living with partner. 75% study participants who were graduate and above had good QOL. Association of QOL with education was found

Statistically significantly associated ($p < 0.05$). 55.2% retired persons, 55.6% shopkeepers, 55.2% private workers and 18.2% labourers had good QOL. 53.4% study participants who belongs to upper class also had good QOL. The association of quality of life with occupation and socio-economic status of participants was found statistically significant. ($p < 0.05$).

11.9% participants who were financially decadents had poor quality of life as compared to 9.1% having poor QOL due to health problems. Quality of life is associated statistically significant with financial dependency and any health problem along with duration of health problem. ($p < 0.05$) (Table 3).

Table-3: Association of quality of life (QOL) with socio-demographic factors

Socio-demographic factors	Quality of life (QOL)										Total		Chi- square	P value
	Very poor		Poor		Average		Good		Very good					
	n	%	n	%	n	%	n	%	n	%	n	%		
Sex														
Male	0	0.0	10	5.3	79	41.6	91	47.9	10	5.3	190	100	35.13	p < 0.05
Female	1	0.5	20	9.5	136	64.8	51	24.3	2	1.0	210	100		
Caste														
`General	0	0.0	23	7.8	152	51.7	109	37.1	10	3.4	294	100		
Backward classes	0	0.0	1	1.7	29	49.2	27	45.8	2	3.4	59	100	25.82	p < 0.05
Schedule castes/schedule tribes	1	2.1	6	12.8	34	72.3	6	12.8	0	0.0	47	100		
Living with partner														
Yes	0	0.0	17	6.5	128	48.7	108	41.1	10	3.8	263	100	15.05	p < 0.05
No	1	0.7	13	9.5	87	63.5	34	24.8	2	1.5	137	100		
Education														
Post-graduation and above	0	0.0	0	0.0	0	0.0	2	100	0	0.0	2	100		
Graduation and above	0	0.0	0	0.0	1	8.3	9	75.0	2	16.7	12	100		
Sr. secondary	0	0.0	4	16.7	9	37.5	9	37.5	2	8.3	24	100	72.08	p < 0.05
Secondary	0	0.0	0	0.0	29	39.7	40	54.8	4	5.5	73	100		
Primary	0	0.0	4	3.7	59	54.6	41	38.0	4	3.7	108	100		
Illiterate	1	0.6	22	12.2	117	64.6	41	22.7	0	0.0	181	100		
Occupation														
Unemployed / Homemaker	1	0.5	18	9.0	126	62.7	55	27.4	1	0.5	201	100		
Agriculture / Farmer	0	0.0	11	9.1	58	47.9	48	39.7	4	3.3	121	100		
Retired	0	0.0	1	3.4	8	27.6	16	55.2	4	13.8	29	100	51.40	p < 0.05
Shopkeeper	0	0.0	0	0.0	4	44.4	5	55.6	0	0.0	9	100		
Labourer	0	0.0	0	0.0	9	81.8	2	18.2	0	0.0	11	100		
Private work	0	0.0	0	0.0	10	34.5	16	55.2	3	10.3	29	100		
Socio-economic status														
Upper	1	1.4	4	5.5	29	39.7	39	53.4	0	0.0	73	100	41.95	p < 0.05
Upper Middle	0	0.0	2	2.5	42	53.2	29	36.7	6	7.6	79	100		
Lower Middle	0	0.0	5	5.2	58	59.8	30	30.9	4	4.1	97	100		
Upper Lower	0	0.0	15	15.8	48	50.5	30	31.6	2	2.1	95	100		
Lower	0	0.0	4	7.1	38	67.9	14	25.0	0	0.0	56	100		

Financial dependency														
Yes	0	0.0	18	11.9	87	57.6	45	29.8	1	0.7	151	100	14.24	p < 0.05
No	1	0.4	12	4.8	128	51.4	97	39.0	11	4.4	249	100		
Having any health problem														
Yes	1	0.5	20	9.1	138	62.7	59	26.8	2	0.9	220	100	27.30	p < 0.05
No	0	0.0	10	5.6	77	42.8	83	46.1	10	5,6	180	100		
Duration of health problem														
< 1	1	2.5	1	2.5	28	70.0	10	25.0	0	0.0	40	100	46.16	p < 0.05
1-5	0	0.0	9	11.0	50	61.0	23	28.0	0	0.0	82	100		
5-10	0	0.0	4	8.9	29	64.4	12	26.7	0	0.0	45	100		
> 10	0	0.0	7	13.2	32	60.4	12	22.6	2	0.0	53	100		

Discussion

The present study was conducted to determine the quality of life of geriatric population in rural block of Haryana. The mean age of the study participants was 66.98±6.89 years. Similar finding was reported by Hameed S et al (2014, Karnataka) in which they reported mean age of study participants as 66.86±6.3 year [12].

In the present study, it was observed that mean score of environmental domain was highest (62.72±14.18), followed by physical health (60.77±15.82). The domain which had the least mean score was social relationships (51.98±18.61).

The highest mean score in environmental QOL may be due to pollution free, stress free and greener environment in rural areas. As Haryana is among better performing state in India better financial resources, adequate diet, home environment and participation in recreation/leisure activities of elderly makes better environmental and physical health domain of QOL.

In the present study, 35.5% elderly were having good and 3% had very good QOL whereas 53.8% elderly had average quality of life (QOL). Similar to these findings Sowmiya KR et al (2012, Tamil Nadu) observed 42.4% good and 3.8% very good and Rajasi RS et al (2016, Kerala) reported 38.8% good and 2.5% very good QOL in their studies [13,14].

The present study showed that 47.9% males had good quality of life as compared to females (24.3%). In accordance to this finding, Van Nguyen T et al (2017, Vietnam) and Dasgupta A et al (2018, West Bengal) found that overall QOL of males are better and statistically significant than females ($p < 0.01$) [15,16].

The results may be due to the fact that, it is believed that Indian society is male dominant and male enjoys greater decision-making power compared to females which gives them more chances to involve in recreational/leisure activities.

Present study showed that elderly belonging to general category were 40.5%, belonging to backward classes were 49.2% and 12.8% belonged to schedule caste had good and very good QOL. A statistically significant association was observed between quality of life and caste of study participants ($p < 0.05$).

Qadri S et al (2013, Haryana) in their study also observed similar finding i.e. significant association was between QOL and caste of study subject. [17] 55.2% retired persons, 55.2% private workers, 55.6% shopkeepers and 18.2% labourers had good QOL ($p < 0.05$).

Qadri S et al (2013, Haryana) also found that QOL was statistically significant with different occupations. [17] 53.4% study participants who belongs to upper class had good QOL, 53.2%,59.8%, 50.5% 67.9% elderly who belongs to upper middle, lower middle, upper lower and lower respectively had average QOL.

The association of quality of life with occupation and socio-economic status of participants was found statistically significant. This may be explained as high SES is directly associated with high income which in turn helps to avail better accommodation, adequate diet and medical facilities leading to live a better QOL. ($p < 0.05$)

Study participants who were post graduate and above had good quality of life, 75% study participants who were graduate and above had good QOL. 54.8% had good QOL who possess secondary education. 54.6% primary and 64.6% illiterates had average QOL respectively.

QOL and education was found statistically significantly associated ($p < 0.05$). Similar results were observed by Kumari R et al (2018, Jammu) [18] in their study where they find QOL statistically associated with education. Sowmiya KR et al (2102, Tamil Nadu) [13] also observed that literates had better QOL compared to illiterates.

Naing MM et al (2010, Myanmar) observed statistically significant association between QOL and education. [19] Kaur H et al (2015, Uttarakhand) also showed similar results. Qadri S et al (2013, Haryana), George S et al (2016, Kerala), Kritika et al (2017, Uttarakhand) and Dasgupta A et al (2018, West Bengal) in their studies also showed statistically significant association between QOL and education [16,17,20,21,22].

This can be explained by the fact that they have a better access to information and health care system which adds to their QOL. 65.5% elderly were living with partner, and among them 48.7% had average QOL followed by 41.1% having good quality of life. Quality of life was good in 24.8% study subjects who were living without partner.

A statistically significant association ($p < 0.05$) was found between QOL and living with partner. This can be explained by the fact that elderly married living with their partner is being more socially acceptable which leads to enhance their chances to create more social relationships.

11.9% financially dependent participants had poor quality of life compared to 4.8% non-dependents. Similar to these findings, Kaur H et al (2015, Uttarakhand), Dasgupta A et al (2018, West Bengal), and Kritika et al (2017, Uttarakhand) also observed significant association between QOL and financial dependency [16,20,22].

9.1% participants who were having any health problem had poor QOL as compared to 5.6% participants having no health problems ($p < 0.05$). Quality of life is associated statistically significant with financial dependency and health problems of study participants ($p < 0.05$). This may be due to the fact that financial independency brings the power of autonomy, opportunities to fulfil the needs in an independent and more satisfactory way which might explain the better QOL. Kumari R et al (2018, Jammu), Naing MM et al (2010, Myanmar), Kaur H et al (2015, Uttarakhand) in their study find QOL statistically associated with health problem of study participants. [18,19,20].

Presence of health problems can cause physical dependency which limits movements and in turn can lead to economic dependency and psychological ill health, this results in poor QOL. It has been observed that QOL is statistically associated with sex, caste, living with partner, level of education, occupation, socio-economic status, financial dependency, health problem and duration of health problem of study participants.

Limitations

Sample size was less and only restricted to rural elderly so results can't be generalized to whole population. Unknown confounders might have affected the results because quality of life is multidimensional. Increased chances of recall bias in the present study as it deals with elderly population.

Conclusion

Most of the elderly people had average quality of life. Males had better quality of life compared to females. Those who were living with partner, had higher education and higher SES had better quality of life. Elderly who were financially dependent to others or having any health problem had poor quality of life.

Social support from family members is essential so that elderly receive the much-needed practical help which in turn helps them in neutralizing the stress of living with ageing.

What the study adds to the existing knowledge

The present study highlights the need of skill identification in elderly and provision of appropriate pension as well as vocational jobs like knitting for elderly women, freelance writer, tutor, financial advisor etc., to decrease dependence. National Program for Healthcare of Elderly (NPHCE) is a full-fledged program to answer issues faced by elderly but the implementation of this program is far from complete. So, this study emphasizes on the need of further studies to evaluate the implementation of programs for elderly and using different new approaches to increase the quality of life in elderly.

Author's contribution

Dr. Meena Rajput: Guiding author, Idea for the study

Pinki: Data Collection, Data entry, Analysis of the data, paper writing and final editing

Dr. Sunil Kumar: Principal investigator (involved in each step of the study like planning and protocol writing, data collection, analysis, paper writing etc.)

Dr. Jaiprakash: Data Entry and Final Editing

Dr. Tarun Kumar: Protocol writing, Analysis of data, final editing and Peer review

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