

Assessment of Quality of Life of the Elderly Living in Rural and Urban Areas of Ambala District: A Comparative Study

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ABSTRACT

Context: Aging is a natural process which universally affects all the human beings in the society. As the geriatric population is quiet vulnerable, They might suffer from mental and physical disabilities which consequently threatens their independence. Quality of life among the geriatric population is a global concern as it reflects the status of health and of well being among the set population.

Aims: To assess the quality of life of elderly living in rural and urban areas and compare the role of socio-demographic factors influencing the quality of life of elderly. **Settings and Design:** It is a Community based Cross sectional study conducted in urban and rural field practice areas of MMIMSR, Mullana.

Methods and Material: Convenience sampling was used. A total of 200 elderly were included in the study. A pretested semi structured questionnaire was used.

Statistical Analysis: Data was analysed using SPSS 20.0. **Results:** According to the sex of the participants, male participants had a higher mean score for QOL as compared to the female participants. Higher mean score was found in each domain for the participants living with their spouses. **Conclusions:** The quality of life is better among the individuals who do not suffer from any chronic illness'. The health care services should be strengthened to provide for better healthcare to the elderlies for their morbid conditions.

KEYWORDS: Geriatric, quality of life, WHO Quality of Life-BREF

INTRODUCTION

The major events in a lifetime of an individual include birth, infancy, adolescence, adulthood, and elderly.^[1] Global estimates indicate that the number of the elderly would exceed the number of children for the very first time in the year 2047. The increase would be from 841 million elderlies in the year 2013 to over 2 billion elderlies in the year 2050.^[2] There is an ever-growing change in the global demographic structure with a slow shift toward increasing proportion of elderly individuals.^[3] In India, there has been an increase in the elderly from 6% in the year 1991 to 8.3% in the year 2013.^[4]

As the geriatric population is quietly vulnerable, they have to face various difficulties which are age related. These problems may also be environment related. They may suffer from chronic illness, being lonely, and lack the basic social security.

They might suffer from mental and physical disabilities which consequently threaten their independence.^[5,6]

The changes that occur in the individuals as they mature are in the appearance, decreased functionality of the body, changed interests, differed attitude, and changed lifestyle.^[7]

The well-being of an individual has two facets, subjective and objective. The subjective component of well-being includes quality of life (QOL).^[8]

The changes that occur, as an individual age, contribute toward decreased QOL. QOL among the geriatric

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population is a global concern as it reflects the status of health and of well-being among the set population.^[9]

To assess QOL among individuals from various cultures and across the world, WHO devised the WHOQOL-BREF scale having 26 questions.^[10]

In the northern region of India, very minimalistic research work has been undertaken to assess the health status of the geriatric population.

The present study was thus undertaken with the objective to find the various factors which affect QOL of elderly population residing in Ambala district.

These parameters would serve as baseline data to help come up with interventions and plan services to cater to this section of the society in a better way.

SUBJECTS AND METHODS

This was a community-based cross-sectional study conducted in rural and urban field practice areas of the Department of Community Medicine, MM Institute of Medical Sciences and Research, Mullana (Ambala), over a period of 2 months, i.e., June–July 2018. A convenience sampling of 200 elderlies were included in the study, 100 from each of the two areas, namely rural and urban were interviewed. The United Nations defines elderly as people more than the age of 60 years.^[11] Hence, the study population comprised of people more than 60 years of age living in rural and urban field practice areas of the department.

Exclusion criteria

1. People who were unfit to give information due to their health status
2. People who were not willing to consent to participate in the study.

Rural field practice area covers a population of 44,365 residing in 23 villages. Of these, four villages were randomly selected and twenty-five elderlies from each of the villages were interviewed to complete the sample of 100 people. Urban field practice area is divided into 14 wards. Of these, four wards were randomly selected and twenty-five elderlies from each of the wards were interviewed to complete the sample of 100 people. A pretested semi-structured questionnaire having two sections was used to collect the information where the first part included information regarding sociodemographic profile and the second part comprised of a 26-point WHOQOL-BREF questionnaire.

Data were entered in the excel sheet and was imported to the Statistical Package for the Social Sciences software SPSS software version 20 (IBM Inc, Chicago) for statistical analysis. For quantitative data, results are

presented in the form of mean (standard deviation), and qualitative variables are presented as percentages to indicate proportions. The association of variables with different domain scores is established by applying standard error of means and ANOVA. $P < 0.5$ has been considered statistically significant at 95% confidence interval.

RESULTS

Maximum females (45%) included in the study were between 60 and 69 years of age. Maximum males (51.5%) included were between the ages of 70 and

Table 1: Age wise distribution of participants

Age group (in years)	Female	Male	Total
60-69	27 (45.0%)	42 (30.0%)	69 (34.5%)
70-79	25 (41.7%)	78 (55.8%)	103 (51.5%)
80-89	6 (10.0%)	17 (12.1%)	23 (11.5%)
90 and above	2 (3.3%)	3 (2.1%)	5 (2.5%)
Mean±SD (in years)	69.28±8.112	71.13±7.801	70.58±7.921
Total	60 (100.0%)	140 (100.0%)	200 (100.0%)

Table 2: Distribution of participants according to their sociodemographic profile

Sociodemographic profile	n (%)
Type of family	
Nuclear	46 (23.0)
Joint	122 (61.0)
Three generation	32 (16.0)
Total	200 (100.0)
Educational status	
Illiterate	51 (25.5)
Primary	69 (34.5)
High school	55 (27.5)
Diploma	6 (3.0)
Graduate	15 (7.5)
Postgraduate	4 (2.0)
Total	200 (100.0)
Occupation	
Business	46 (23.0)
Government service	5 (2.5)
Labor	45 (22.5)
Private job	16 (8.0)
Unemployed	88 (44.0)
Total	200 (100.0)
Source of income	
Business	66 (33.0)
No independent source	54 (27.0)
Old-age pension	55 (27.5)
Salary	25 (12.5)
Total	200 (100.0)
Presence of chronic illness	
Present	108 (54.0)
Absent	92 (46.0)
Total	200 (100.0)

79 years. The mean age for the study group came out at 70.58 ± 7.921 years [Table 1]. Maximum participants (75%) lived with their spouses while divorce was observed in a single case [Figure 1]. Maximum participants lived in joint families (61%) while the least belonged to three-generation families (16%) [Table 2]. Maximum participants had studied till primary school (34.5%) followed by high school (27.5%). The least number of participants had completed their postgraduation (2%) [Table 2]. Forty-four percent of all the participants were unemployed. Twenty-three percent run their own business followed by 22.5% who were involved in labor [Table 2]. Thirty-three percent of the participants stated that their source of income was from the business they run. About 27.5% relied upon their old-age pension as a source of income. Only 12.5% of the participants drew salary [Table 2]. Majority of the participants (54%) suffered from some or the other

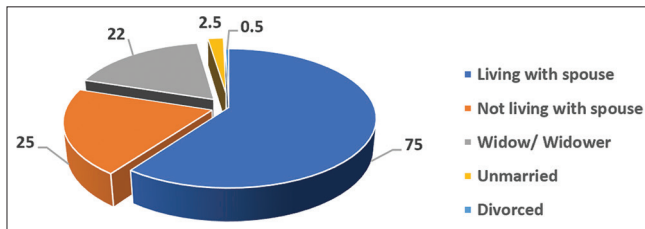


Figure 1: Distribution of participants as per status of spouse

chronic illness like hypertension, diabetes mellitus and arthritis [Table 2].

Distribution of participants as per their compliance to the treatment prescribed came out at 87.9% of the participants adhering to the prescribed medications [Figure 2].

On assessing the QOL domains for either gender, it was found that in all the domains, male participants had a higher mean score as compared to female participants. The association of the physical domain with the sex of the participants was found to be statistically significant ($P = 0.001$). The rest of the domains had no significant association with gender of the participants [Table 3].

The highest mean score was obtained by 80–89-year-old participants in the physical domain (64.61 ± 14.009),

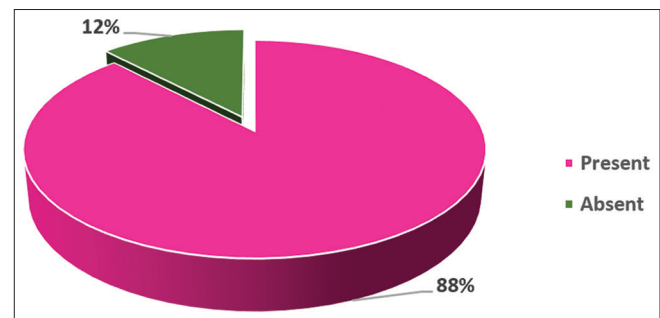


Figure 2: Distribution of patients as per compliance to treatment prescribed

Table 3: Quality of life scores as per demographic variables

	Mean±SD			
	Physical domain	Psychological domain	Social domain	Environmental domain
Gender				
Female	54.62±16.612	62.05±18.092	52.70±17.936	65.20±16.585
Male	62.68±15.221	66.45±15.860	57.84±17.635	68.65±12.919
Total	60.26±16.042	65.13±16.638	56.30±17.838	67.62±14.165
<i>P</i>	0.001	0.087	0.062	0.115
Age group (years)				
60-69	59.04±18.864	65.14±19.862	59.51±18.487	67.54±15.071
70-79	60.42±14.175	65.19±15.425	55.33±16.671	67.57±12.899
80-89	64.61±14.009	65.87±11.768	55.39±13.581	69.91±14.663
90 and above	53.80±19.071	60.20±14.272	36.20±34.752	59.00±23.917
Total	60.26±16.042	65.13±16.638	56.30±17.838	67.62±14.165
<i>P</i>	0.409	0.923	0.029	0.486
Residential area				
Rural	56.59±17.878	63.17±18.282	56.18±17.387	66.74±15.357
Urban	63.93±13.056	67.09±14.645	56.42±18.365	68.49±12.881
Total	60.26±16.042	65.13±16.638	56.30±17.838	67.62±14.165
<i>P</i>	0.001	0.096	0.924	0.384
Status of spouse				
Living with spouse	61.21±16.245	66.33±16.592	60.45±16.405	68.86±14.146
Not living with spouse	56.52±15.843	61.23±16.185	43.84±16.932	64.61±14.208
Total	60.26±16.042	65.13±16.638	56.30±17.838	67.62±14.165
<i>P</i>	0.361	0.339	<0.001	0.129

P value inference: >0.05 - Insignificant, <0.05 - Significant, <0.001 - Highly significant. SD: Standard deviation

psychosocial domain (65.87 ± 11.768), and environmental domain (69.91 ± 14.663). In the social domain, it can be observed that with increasing age, the mean scores also show a downward trend. The association between the social domain and the age of the participants came out to be statistically significant ($P = 0.029$) [Table 3]. In the physical domain, the highest mean score was among participants living in nuclear families (63.57 ± 15.855). In the psychosocial domain, the highest score was among the participants from three-generation families (68.72 ± 12.63). Similar was the case in social domain and environmental domain where the highest score was of the participants from three-generation families (59.19 ± 15.53 and 70.56 ± 10.32 , respectively). None of the domains had a statistically significant association with the type of family [Table 4]. The highest mean scores for all the domains were among the graduates. The association of the physical, psychosocial, and social domains was found to be statistically significant ($P = 0.001$, $P = 0.002$, and $P = 0.034$, respectively) [Table 4]. It was found that the higher score in each domain was found among participants with no chronic illness. The association of physical and psychosocial domains with the presence of chronic illness was found to be statistically highly significant ($P < 0.001$).

The association of the environmental domain with chronic illness was also found to be statistically significant ($P = 0.005$) [Table 4].

DISCUSSION

In the present study, it was observed that the mean scores for QOL were higher among male participants as compared to females. It was also observed that the association between the gender and the physical domains was statistically significant.

In a study conducted by Lokare *et al.* in Vidyanagar, Karnataka, it was observed that the mean scores of males and females were significantly different in the physical domain but not in the other domains.^[12]

In a study conducted by Qadri *et al.* in Ambala district, Haryana, it was found that either gender had statistically significant different scores with higher scores for males.^[13]

In a study by Thadathil *et al.* conducted in Kerala in a rural setup, it was observed that males had statistically significant higher scores for QOL as compared to female participants.^[14]

In a study by Shekhar *et al.*, a similar pattern was again observed when the elderlies were assessed in Jammu.^[15]

Table 4: Socioeconomic variables affecting quality of life scores

	Mean±SD			
	Physical domain	Psychological domain	Social domain	Environmental domain
Type of family				
Joint	58.48±16.089	63.29±17.642	55.71±17.889	67.38±15.709
Nuclear	63.57±15.687	67.52±15.912	55.85±19.319	66.20±11.916
Three generation	62.31±15.855	68.72±12.634	59.19±15.537	70.56±10.320
Total	60.26±16.042	65.13±16.638	56.30±17.838	67.62±14.165
<i>P</i>	0.136	0.140	0.609	0.392
Educational status				
Illiterate	54.88±16.717	59.27±16.449	52.08±21.641	60.67±12.826
Primary	56.88±17.484	63.45±18.328	54.23±15.536	66.03±15.075
High school	66.77±12.009	67.75±13.284	59.00±16.195	70.81±11.324
Diploma	60.67±12.817	68.00±16.876	62.50±14.209	73.00±10.412
Graduate and above	69.33±12.187	78.73±13.387	67.93±16.468	81.87±9.650
Total	60.26±16.042	65.13±16.638	56.30±17.838	67.62±14.165
<i>P</i>	0.001	0.002	0.034	<0.001
Employment status				
Employed	67.48±10.443	71.17±12.319	59.63±14.830	74.02±9.425
Unemployed	57.67±16.231	64.28±16.681	54.03±19.252	66.85±16.325
Total	60.26±16.042	65.13±16.638	56.30±17.838	67.62±14.165
<i>P</i>	0.002	0.003	0.093	0.002
Presence of chronic illness				
Present	55.38±16.584	60.27±17.094	55.04±19.332	64.62±13.504
Absent	66.16±13.307	70.92±14.225	57.80±15.970	71.15±14.261
Total	60.26±16.042	65.13±16.638	56.30±17.838	67.62±14.165
<i>P</i>	<0.001	<0.001	0.555	0.005

P value inference: >0.05 - Insignificant, <0.05 - Significant, <0.001 - Highly significant. SD: Standard deviation

In the present study, the participants residing in an urban setup had higher mean scores in each domain as compared to the ones living in rural areas. This association was found to be statistically significant for the physical domain ($P = 0.001$).

In the present study, participants living with their spouses had higher mean scores in each domain when compared with those who lived alone or otherwise. This association was found to be highly statistically significant for the social domain of QOL ($P < 0.001$).

In a study conducted by Sowmiya and Nagarani, it was found that the married elderly living with their spouses had better QOL scores as compared to others for the physical, social, and environmental domains.^[16]

In a study by Kumar *et al.* on the geriatric population from urban areas of Puducherry, it was observed that those elderly who lived with their partners had higher mean scores in all the domains as compared to the singles/widowers/widows/separated.^[10]

In the present study, it was observed that in the physical domain, the highest mean score was among the people living in nuclear families (63.57 ± 15.855). In the psychosocial domain, the highest score was among the participants from three-generation families (68.72 ± 12.63). Similar was the case in social domain and environmental domain where the highest score was of the participants from three-generation families (59.19 ± 15.53 and 70.56 ± 10.32 , respectively). None of the domains had a statistically significant association with the type of family.

In a study conducted by Soni *et al.*, it was found that the participants living in joint families had higher mean scores as compared to those belonging to nuclear families. There was no significant association found between the family type and the scores in either of the domains.^[17]

In the present study, the highest mean scores for all the domains were among the graduates. The association of the physical, psychosocial, and social domains was found to be statistically significant ($P = 0.001$, $P = 0.002$, and $P = 0.034$, respectively). The association between the environmental domain and the educational status was found to be statistically highly significant ($P < 0.001$).

In a study by Sowmiya and Nagarani, it was observed that literate elderly had a better QOL domain score when compared with illiterates.^[16]

In a study conducted by Qadri *et al.* in rural Haryana, the researchers concluded that the educational status of their study population was associated significantly with a higher mean score for every QOL domain.^[13]

Thadathil *et al.* observed a similar pattern where, as the level of education increased among the study participants, the mean score for QOL increased.^[14]

In the present study, it was observed that the mean scores for QOL domains were higher among the employed participants. The association between the physical, psychosocial, and environmental domains with the employment status of the participants was found to be statistically significant ($P = 0.002$, $P = 0.003$, $P = 0.002$, respectively).

Thadathil *et al.* concluded that the employed participants from their study too had higher mean scores as compared to the unemployed participants. In their study, this association between the domains and the employment status was found to be statistically significant.^[14]

In a study conducted by Soni *et al.*, it was observed that the employed participants had higher mean scores for QOL in each domain.^[17]

In the present study, a higher score in each domain was found among participants with no chronic illness. The association of physical and psychosocial domains with the presence of chronic illness was found to be statistically highly significant ($P < 0.001$). The association of the environmental domain with chronic illness was also found to be statistically significant ($P = 0.005$).

In a study conducted in an urban setup in Puducherry, Kumar *et al.* observed that the absence of chronic illness was concurrent with a higher mean score for QOL among elderly.^[10]

In a study conducted by Thadathil *et al.*, the participants who suffered from no other comorbidity had a higher mean score for QOL. This association was found to be statistically significant.^[14]

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Conflicts of interest

There are no conflicts of interest.

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