

Ageing and Quality of Life among Elderly Population in Field Practice Area of Department of Community Medicine

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Abstract

Background: The global population is ageing, with implications for public health, including community medicine. The field practice area of the Department of Community Medicine provides a unique setting to study ageing and quality of life among elderly individuals. Understanding this relationship is crucial for developing effective interventions to promote healthy ageing and improve the well-being of elderly populations in the field practice area.

Methods: The study was conducted as a cross-sectional study among elderly individuals (aged 60 years and above) residing in the field practice area of the Department of Community Medicine. A structured questionnaire was used to collect data on socio-demographic characteristics, health status, functional ability, social support, and quality of life among the elderly participants. Data was analyzed using appropriate statistical methods, including descriptive statistics and inferential statistics.

Results: The findings revealed that a significant proportion of the elderly population in the field practice area of the Department of Community Medicine reported poor quality of life. Factors such as advanced age, female gender, low socio-economic status, presence of chronic health conditions, functional limitations, and lack of social support were found to be associated with lower quality of life among the elderly population.

Conclusion: Ageing is a complex phenomenon that has significant implications for the quality of life of elderly individuals in the community. The Department of Community Medicine has a crucial role to play in addressing the challenges associated with ageing populations and promoting healthy ageing practices. Further research and interventions are needed to better understand and address the diverse needs of the elderly population in the field practice area of the Department of Community Medicine and to improve their quality of life.

Keywords: Ageing, Quality of Life, Elderly Population, Community Medicine, Field Practice Area.

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Introduction

The World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being, and not just the absence of disease or infirmity. This definition emphasizes the importance of social welfare as an integral component of overall health, alongside physical and mental health. Health is closely related to the social environment and living conditions of individuals.[1]

Ageing is a natural physiological process that leads to a decline in biological functions and the ability to adapt to metabolic stress, resulting in an increased risk of disability, disease, and death. Ageing can also be seen as a state of mind that may not always align with an individual's chronological age. Attitude and coping with the changes, challenges, and opportunities of later life can define how one perceives their age.[2]

The 20th century has witnessed an unprecedented increase in human longevity, resulting in population ageing worldwide. In India, for example, the population over the age of 60 has more than tripled in the last 50 years, with projections indicating further increases in the coming decades. Population ageing, which is driven by declining fertility rates and improved survival rates, is occurring globally. According to the United Nations, 195 countries with at least 90,000 populations in 2017 are expected to see an increase in the proportion of persons aged 60 or over between 2017 and 2050.[3]

In 1980, the global population aged 60 years or over was 382 million, which doubled to 962 million in 2017. Projections indicate that the elderly population will double again by 2050, reaching nearly 2.1 billion. India is currently in a phase of demographic transition, with a significant increase in the number of elderly persons. According to Census 2011, India has 104 million older people (60+ years), constituting 8.6% of the total population, with females outnumbering

males. The demographic transition is attributed to decreasing fertility and mortality rates due to improved healthcare services.[4]

Population ageing has significant implications for sustainable development, affecting economies, societies, and the environment. It is influenced by factors such as sustained declines in fertility rates, increased life expectancy, reduced infant, child, and maternal mortality, and better control of communicable and non-communicable diseases. While longevity is generally seen as a positive outcome, population ageing presents numerous challenges for the elderly population.[5]

Economic problems are fundamental to many of the challenges faced by the elderly. With increasing numbers of elderly persons leaving the labor force, there is a loss of employment and income, leading to reduced self-esteem and well-being. Inadequate financial resources make it challenging to handle the issues and requirements of old age.[6]

Physiological problems are also common among the elderly, as aging is accompanied by anatomical and physiological changes. These changes can have psychological, behavioral, and attitudinal impacts. Loss of physical strength and stamina becomes more pronounced with age, making it difficult to perform daily activities. Physiological changes in the body also make the elderly more susceptible to communicable and non-communicable diseases, with reduced ability to adapt and acclimatize. A healthy lifestyle, including physical activity, a balanced diet, and avoiding tobacco, alcohol, and other harmful substances, is recommended.[7]

In addition to economic and physiological challenges, social, psychological, environmental, and cultural factors also influence the quality of life of the elderly. Social isolation, loneliness, mental health

issues such as depression and anxiety, environmental hazards, and lack of access to healthcare and social services are common challenges faced by the elderly population. Addressing these challenges requires comprehensive policies and government actions to ensure sustainable economic growth, poverty eradication, and addressing inequalities.[8]

In conclusion, population ageing is a significant global phenomenon with implications for health, well-being, and sustainable development.[9]

Material and Methods

The study was conducted among the elderly population (aged 60 years and above) residing in the field practice area of the Department of Community Medicine, Mahatma Gandhi Medical College and Hospital, Sitapura, Jaipur. It was a community-based cross-sectional study conducted over a period of 1.5 years from March 2021 to September 2022, including data collection, analysis, and writing of results and discussion. The fieldwork was carried out from August 2021 to February 2022. Ethical approval was obtained from the Institutional Ethical Committee of Mahatma Gandhi Medical College and Hospital, Jaipur, and informed written consent was obtained from the study participants.

The sample size for the study was calculated using the formula $N = Z^2 PQ / L^2$, where N is the sample size, Z is the statistic at α level of significance (1.96 for a 95% confidence level), P is the expected prevalence/proportion, Q is 100 minus P, and L is the absolute error. Considering the expected prevalence of the geriatric population in Rajasthan to be 6.5% and the absolute error to be 2%, the sample size was calculated to be 608. A total of 605 elderly individuals from both urban and rural areas were surveyed to assess the quality-of-life parameters.

The inclusion criteria for the study were elderly individuals aged >60 years, residing in the field practice area of the Department of Community Medicine, Mahatma Gandhi Medical College, Jaipur for more than 6 months, and willing to participate. Only one elderly individual from one household was included in the study. Exclusion criteria included individuals below the age of 60, those with mental health issues or unable to respond, and those who did not give consent to participate in the study.

A pilot study was undertaken with 70 subjects to make minor changes in the initial proforma, and the final proforma was designed for data collection in the main study. A systematic random sampling procedure was used to select the study population. The rural part of the study was conducted at the Rural Health Training Centre area of Vatika, Sanganer, Jaipur, with a population of approximately 11,000. The urban study was conducted at the Urban Health Training Centre area of UHTC, Pratap Nagar, Sanganer, Jaipur, consisting of a population of 40,000. The first house was chosen randomly, and every 5th house was selected until the desired number of samples was reached. Study participants were taken in equal proportions from rural and urban areas, and the purpose of the study and health benefits were explained to every person before the administration of data collection tools.

Data was collected on socio-demographic factors including age, sex, education, occupation, and marital status using a pre-tested semi-structured schedule. Age was recorded in years to the nearest completed year. Education was categorized as illiterate, primary, middle, secondary, higher education, and graduate and above, based on the Registrar General Census scale. Occupation was recorded as unemployed, unskilled worker, semi-skilled worker,

skilled worker, clerical, shopkeeper, farmer, semi-professional, and professional.

Type of family was categorized as nuclear, nuclear extended/3rd generation, and joint family. Family income per month was calculated as the sum of yearly income from all sources divided by twelve. Socioeconomic status (SES) was assessed

using B.G. Prasad's socioeconomic classification, which was modified based on the Consumer Price Index (CPI) for February 2015, using a hypothetical value of 0.53% to create multiplication factors. Additionally, there were questions that asked about the individual's overall perception of their health and their self-reported presence of chronic illness.

Results

Table 1: Distribution of study population according to QOL in Rural demographic characteristics of study population

Rural		Moderate (%)	Good (%)	Chi-square (df)	p value
Age	<70	38	66	8.563 (1)	0.003
	≥70	62	34		
Occupation	Unemployed	3	1	22.054 (6)	0.001
	Farmer	38	40		
	Homemaker	26	39		
	Retired	0	5		
	Buisness	9	3		
	Private job/ employed	3	8		
	Labour	21	4		
Socio economic status	Upper class	0	1	40.293	0.000
	Upper middle	3	9		
	Middle	9	29		
	Lower Middle	38	51		
	Lower	50	10		
Living Condition	Poor	56	12	40.293	0.000
	Satisfactory	44	88		

The table presents findings related to different factors affecting the quality of life among elderly individuals in rural areas, including age, occupation, socioeconomic status, and living conditions. Chi-square statistics and p-values indicate significant associations between these factors and the quality of life of the elderly population.

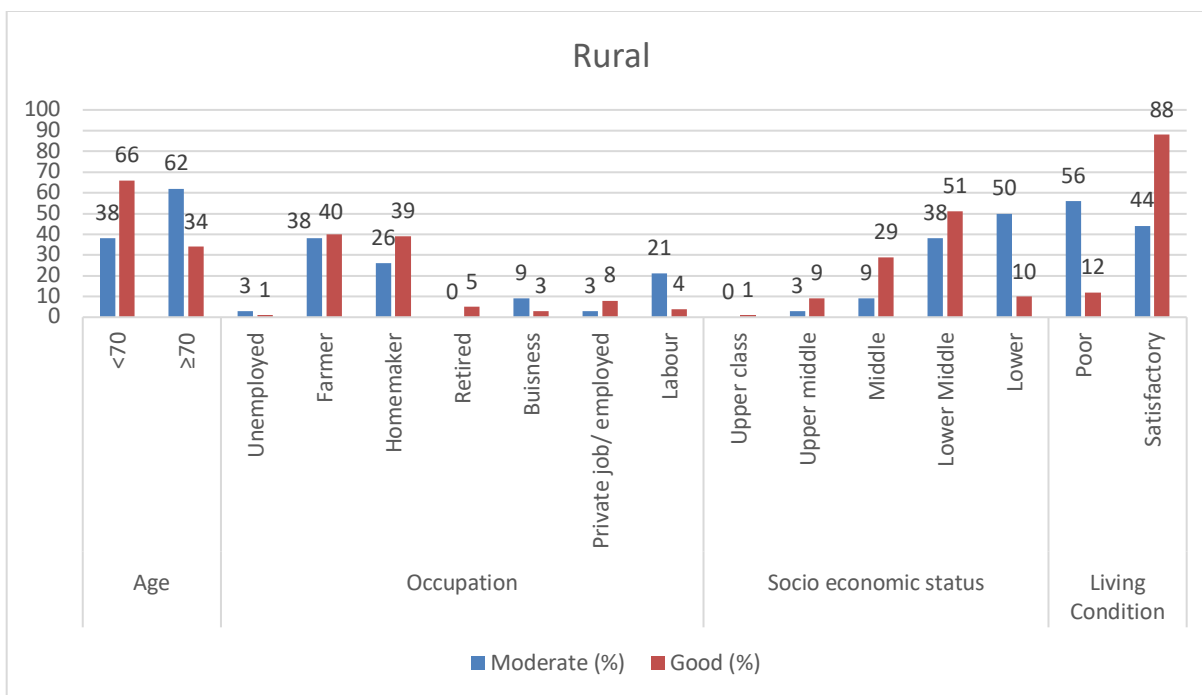


Figure 1: Distribution of study population according to QOL in Rural demographic characteristics of study population

Table 2: Distribution of study population according to QOL score in Urban demographic characteristics of study population

Urban		Moderate (%)	Good (%)	Chi square	p value
Age	<70	5	35	5.903(1)	0.015
	≥70	95	65		
Education	Illiterate	47	19	10.488(3)	0.019
	Primary and middle	16	36		
	Secondary and Higher secondary	21	17		
Marital Status	Graduate and above	16	28	0.793(1)	0.003
	Married	68	92		
Type of family	Other	32	8	26.107(2)	0.000
	Nuclear	42	7		
	3 rd gen	47	75		
	Joint	11	18		

The table presents findings related to factors affecting the quality of life among elderly individuals in urban areas, including age, education, marital status, and type of family. Chi-square statistics and p-values indicate significant associations between these factors and the quality of life of the elderly population.

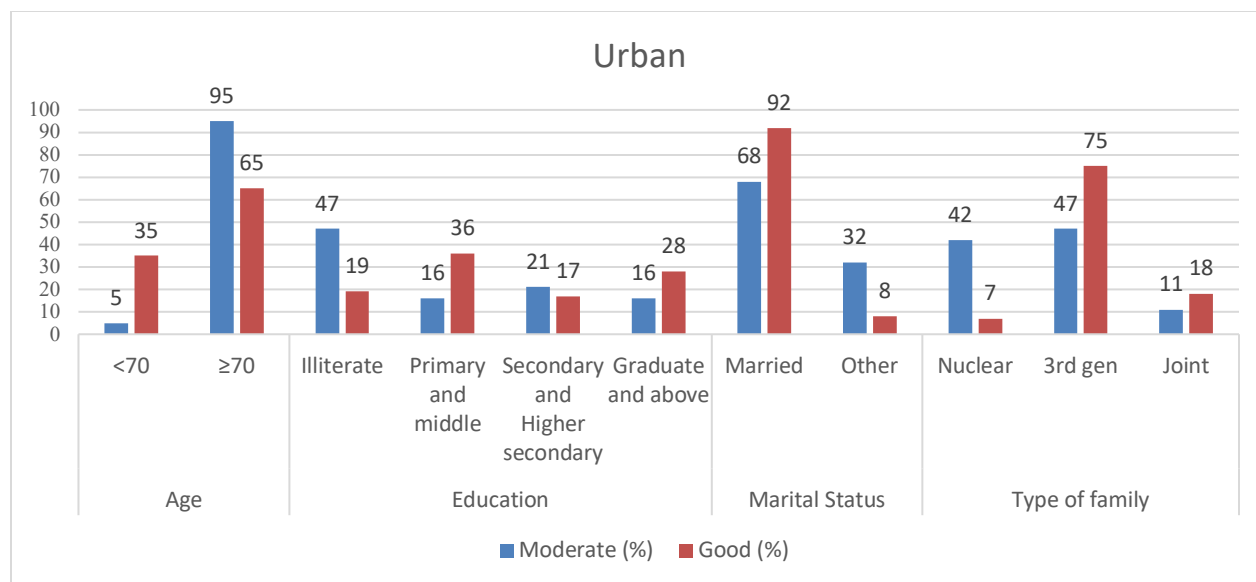


Figure 2: Distribution of study population according to QoL in Urban demographic characteristics of study population

Discussion

The present study aimed to assess the quality of life (QoL) scores among elderly populations in rural and urban areas of Jaipur, within the field practice area of Mahatma Gandhi Medical College Jaipur, and identify the determinants of QoL. A total of 605 elderly individuals were included in the study using systemic random sampling. The selected individuals were examined and interviewed using a pre-designed and pre-tested proforma [10].

The study found that males outnumbered females, with 53% being male and 47% being female. This result was consistent with a previous study conducted by Mallik *et al.*, which also found a higher proportion of male participants (70.04%). The majority of the elderly population in the present study were homemakers (37%), followed by farmers (24%), retired individuals (14%), those engaged in business (10%), laborers (5%), and unemployed individuals (1%).[11]

In terms of marital status, 88% of the elderly population in the study were married and living with their spouse. Only 5% were living

in nuclear families, while 60% lived in 3rd generation families, and the remaining 35% lived in joint families. In terms of socioeconomic status, 4% of the study population belonged to the upper class, 28% to the upper-middle class, 30% to the middle class, and 30% to the lower-middle class, with 8% belonging to the lower class.[12]

Regarding the quality-of-life scores among the elderly population, the study found that none had poor quality of life, 9% had moderate quality of life, 90% had good quality of life, and 1% had very good quality of life. These findings were similar to previous studies conducted by Qadri *et al.*, KVS Srijayanth *et al.*, Venu R. *et al.*, Rajput *et al.*, Sowmiya KR *et al.*, Rajasi RS *et al.*, Debnath *et al.*, Bhattacharjya *et al.*, Dasgupta *et al.*, Shah *et al.*, and Thadathil *et al.*, which also reported good or very good quality of life scores among the elderly population.[13] The study also assessed the mean scores of different domains of quality of life. The physical domain had the highest mean score of 62.97 with a standard deviation of 10.70,

followed by the psychological domain with a mean score of 55.55 and a standard deviation of 8.70. The environmental domain had a mean score of 53.34 with a standard deviation of 10.96, and the social domain had the least mean score of 53.20 with a standard deviation of 15.71. These findings were consistent with previous studies conducted by Rashid *et al.*, Thadathil *et al.*, Asadullah *et al.*, Karmakar *et al.*, and Krishnappa *et al.*, which also reported variations in mean scores across different domains of quality of life among elderly populations.[14]

In conclusion, the present study found that the majority of the elderly population in the rural and urban areas of Jaipur had good or very good quality of life scores. The physical domain had the highest mean score, followed by the psychological and environmental domains, while the social domain had the least mean score. These findings are consistent with previous studies conducted in other regions of India. Further research may be needed to explore the determinants of quality of life among the elderly population and develop interventions to improve their well-being.[15]

The present study investigated the relationship between marital status and quality of life in elderly individuals living in rural and urban areas. The findings showed that marital status did not have a significant impact on quality of life in elderly individuals living in rural areas, with a p-value of 0.503. However, in urban settings, marital status did have a significant effect on quality of life, with a p-value of 0.003. This may be attributed to the fact that younger generations in urban areas are more likely to be employed and may rely on emotional support from their spouse.[16]

Contrasting results were found in a study conducted by Rajput *et al.* in rural population of Jhajjar, Haryana, where it was found that elderly individuals living with a partner had

better quality of life compared to those living without a partner, and this association was statistically significant with a p-value less than 0.05. This may be explained by the social acceptability of being married and the increased chances of creating social relationships among elderly individuals living with their partner.[17]

The study also examined the relationship between addiction, chronic disease, and quality of life in elderly individuals. The results showed that addiction did have a significant impact on quality of life, with non-addicted elderly individuals having higher mean scores in physical, psychological, and environmental domains compared to addicted elderly individuals. Similarly, elderly individuals with no chronic illness had higher mean scores in physical and social domains compared to those with chronic disease, but only the environmental domain was statistically significant.[18]

These findings are consistent with previous studies that have reported better quality of life among non-smokers and non-alcoholics compared to smokers and alcohol consumers. However, a study by KVS Srijayanth *et al.* found that poor quality of life may contribute to the development of smoking and alcoholism habits.[19]

In conclusion, the present study found that marital status and addiction are important factors influencing quality of life in elderly individuals, with significant differences observed between rural and urban areas. The study also highlighted the impact of chronic disease on quality of life, with the environmental domain being particularly affected.[20] These findings suggest the need for targeted interventions and support for elderly individuals based on their marital status, addiction status, and presence of chronic diseases to improve their quality of life. Further research is needed to explore

these relationships in different populations and settings.[21]

Conclusion

The present study found that only 1% of the elderly population had a very good quality of life, with the majority (90%) having a good quality of life, and 9% having a moderate quality of life. Quality of life was significantly better among elderly living in urban areas compared to those living in rural areas, indicating a need for improved healthcare and social support services for older persons in rural areas.

Various factors were found to significantly impact the quality of life of elderly individuals in different settings. In rural areas, factors such as age, occupation, socioeconomic status, and living conditions played a significant role, while in urban areas, factors such as age, education, marital status, and type of family were significant. Illiteracy, being unmarried, belonging to a nuclear family were associated with poor quality of life, while higher education, employment or financial independence, and being married or living with a spouse were associated with better quality of life.

Gender also played a role, with females having better physical domain scores and males having better psychological domain scores. Age also had an impact, with those below 70 years of age having better quality of life in the physical and psychological domains compared to those aged 70 or above.

Higher socioeconomic status, specifically being in the upper or upper-middle class, was associated with better quality of life in the psychological and environmental domains. Non-addicted elderly had better quality of life in the physical, psychological, and environmental domains, while those with addiction had better quality of life in the social domain. Elderly with chronic illness had better environmental domain scores

compared to those without any chronic illness.

Living conditions also played a significant role, with elderly living in satisfactory living conditions having better quality of life in the psychological and environmental domains compared to those living in poor conditions.

Overall, the findings highlight the importance of addressing various factors such as socioeconomic status, education, living conditions, and healthcare access in improving the quality of life of the elderly population, especially in rural areas. Interventions targeted at addressing these factors could potentially lead to improved quality of life among elderly individuals, with particular attention to specific domains such as physical, psychological, social, and environmental well-being.

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