



A Study on Quality of Life Among Inmates of Old Age Homes in Urban Vijayawada

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Type of Publication: Original Research Paper

Conflicts of Interest: Nil

Abstract

Introduction: In developing nations, the growing number of aging populations, shifting family dynamics, and the elderly's lack of financial assistance contribute to declining health and general well-being. The assessment of Quality of life (QoL) and the factors affecting it among the elderly may help to understand better and develop an insight to create measures that can improve their quality of life.

Methodology: A cross-sectional study was conducted for 3 months (Oct-Dec 2023) among 144 elderly persons (aged ≥ 60 years) residing in old age homes of urban Vijayawada after obtaining permission from the Institutional ethics committee. After obtaining informed written consent, data were collected using the semi-structured questionnaire, entered in an MS Excel spreadsheet, and analyzed using SPSS.

Result: A total of 144 geriatric people fulfilling the study criteria were enrolled. The majority of the people were aged between 70 and 79 years (48.6%). Most of them (93.1%) resided in urban areas, 70.1% were literate by education, and more than half (59%) depend on pension for livelihood. The overall QoL score was 97.27(excellent). Overall QoL was significantly better among females, elderly who were residing in urban areas, educated, with no co-morbidities, with normal ADL (Activity of Daily Living), with no addictive habits, and those who are getting pension.

Conclusion: The study calls for a re-evaluation of societal values, viewing old age homes as supplementary support rather than replacements for familial connections, urging reflection on the preservation of generational ties within the family unit.

Keywords: ADL, Elderly Population, Quality of life

Introduction

Due to longer life spans and lower fertility, the elderly population is rapidly growing in developing nations. In India, the elderly make up 8.6% of the total population ^[1]. In 2050, there may be a likely increase of 22% ^[2]. The aging process, which results in a general loss of health, affects and burdens the elderly. Even now, preserving the health and social involvement of the elderly population while enhancing their quality of life remains a significant public health concern.

In India, national policies and programs for the elderly are aimed at their welfare and maintenance, particularly for impoverished senior citizens, by financing old age homes, daycare centres, mobile medical care units, and so on ^[3,4]. Old age is variable; some people age with a high quality of life, while others suffer from dementia, weakness, comorbidities, and depression, all of which reduce their quality of life ^[6]. When longevity and quality are coupled, a sense of happiness can be attained.

WHO defines 'Quality of life as an individual's perception of their position in life in the context of the culture and value in which they live and in relation to their goals, expectations, standards and concerns' [7]. Healthcare providers need to know about the factors that affect the QoL of the elderly to determine suitable interventions [8]. So, this will enable them to improve the QoL and health of the aging population. Therefore, it is essential to ascertain their quality of life. Very few studies were conducted on QoL among the elderly in Andhra Pradesh. The objective of this study was to assess the factors affecting the quality of life among the geriatric population residing in old age homes in Vijayawada City.

Materials And Methods:

Study Design And Setting

This was an institution-based Analytical Cross-sectional study conducted for 3 months (Oct-Dec 2023) among elderly persons residing in paid old age homes in urban Vijayawada.

Study Population

The elderly population (aged ≥ 60 years) [1] residing in old age homes of Vijayawada city were included.

Sample Size And Sampling Design

Seven old age homes in urban Vijayawada gave approval for the study to be carried out. Following this, the study included all elderly inmates ($n=144$) of these seven homes who met the eligibility criteria and gave informed consent. Inmates who were mentally unsound or severely ill were excluded from the study. Data were collected using a semi-structured schedule that covered sociodemographic profiles and the WHO-QoL BREF questionnaire, which was used to measure QoL.

Study Tool

The WHO-QoL BREF questionnaire [9] was used to evaluate the quality of life. It comprised 26 items across four domains: physical (7 items), psychological (6 items), social (3 items), and environmental (8 items). Additionally, two items focused on general health and overall quality of life. Each question in the WHO-QoL BREF questionnaire received a response scale score ranging from 1 to 5, later converted to a 0-100 scale. Within the physical domain, aspects such as everyday activities, energy levels, discomfort, and sleep were evaluated. The

psychological domain explored thoughts, emotions, self-esteem, and both positive and negative body image.

Social support and interpersonal interactions were addressed in the social domain, while the environmental domain encompassed questions related to finances, safety, home environment, and transportation. The reliability of the instrument was assessed using Cronbach's alpha. The overall reliability for all questions on the WHO-QoL BREF was 0.94. The four grades of QoL depending upon the score were interpreted as in Table 1.

A ready-made table for converting raw scores to transformed scores on a scale of 0-100 and 4-20 has been made available by the WHO-QoL BREF questionnaire. We converted the raw score to a transformed score using a scale of 0 to 100 taken straight from the supplied table, and the analysis was done using the transformed score.

Study Variables

Quality of life as measured by the WHO-QoL BREF scale, a continuous variable, was the main outcome variable. The characteristics that were included as predictors included age, gender, socioeconomic status, education, residing area, religion, presence of co-morbidities, ADL, getting pension, doing physical activity, and addictive habits.

Data Entry And Analysis

The data were analysed using SPSS version 20.0. The data were summarized into frequencies and proportions. The independent sample t-test and ANOVA were used to determine whether there was a significant difference in several aspects of quality of life among different groups of subjects. In this study, a p-value of <0.05 was taken as significant.

Ethical Considerations

Ethics Committee approval was obtained from the Institutional Ethics Committee for conducting this study. Permission to conduct the study at old age homes was sought from individual old age home authorities. Informed written consent was obtained from study subjects after explaining the nature and purpose of the study in the vernacular (Telugu) language. The process of data collection did not involve any invasive procedures and did not pose any potential risk or harm to the participants. All

information collected during the study was kept confidential.

Results:

Of the 144 elderly people studied, 59.7% were males and 40.3% were females. The mean (\pm SD) age of the participants was 73.97 (\pm 7.8) years. 93.1% of the study participants were from urban areas. Regarding educational status, 70.1% were literate and the majority of study subjects belonged to the Upper middle class (class II SES) according to the Modified Kuppasamy classification (Table 2).

According to the WHO-QoL BREF scale, the mean (\pm SD) scores of the physical domain, psychological domain, social domain, and environment domain were 61.72 (\pm 20.03), 65.50 (\pm 14.21), 68.26 (\pm 10.98) and 78.04 (\pm 11.93), respectively. The overall QoL score was 97.27 which was excellent. The impact of age, gender, socioeconomic status, education, residing area, religion, presence of co-morbidities, ADL, getting pension, doing physical activity, and addictive habits on different domains of QoL was studied using independent t-test and ANOVA.

Overall QoL was significantly better among females, elderly who were residing in urban areas, educated, with no co-morbidities, with normal ADL, with no addictive habits, and are getting pension. The elderly age group of 70-79 years with no co-morbidities, with normal ADL, and are doing physical activities have significantly better physical health. Psychological health was significantly better among the elderly age group of 70-79 years, belonged to upper SES, were residing in urban areas, with no co-morbidities, with normal ADL, those who are getting pension, and are doing physical activities. In contrast, the female gender and those who were residing in urban areas, with normal ADL and are getting pensions had significantly better social and environmental relationships (Table 3). The main reason for residing in old age homes as said by inmates was the lack of caretakers in their families.

Discussion:

A cross-sectional study was conducted among inmates of paid old age homes to assess their quality of life and to determine the factors associated with QoL. The environmental domain of quality of life received the greatest score in the current study, whereas the physical domain received the lowest score.

A higher score in the environment domain could be attributed to factors such as financial resources, availability of transportation facilities, old age home environment, and physical safety and security. A lower score in the physical domain might be the result of co-morbidities increasing with age and an individual's decreased ability to work and quality of sleep.

The majority (79.1%) of the elderly had excellent overall QoL scores whereas 18.8% had good and 2.1% had fair QoL scores [Fig.1]

Significant gender-related differences were found in the social, environmental domain, and overall QoL in this study. According to a study conducted in Maharashtra, by Amonkar et al. [10], there was no significant difference between the genders in other categories. Still, there was a substantial difference in the mean scores of males and females in the social domain.

A study conducted in Karnataka utilizing the WHO-QoL BREF questionnaire found that the social, psychological, and physical domains of QoL were significantly affected by age groups, but in the current study, only physical and psychological domains of QoL were significantly affected by age groups. Comparatively, the age group of 70-79 years had better scores in physical and psychological domains. Scientists studying the elderly globally concur that as part of the natural aging process, the human population undergoes a gradual deterioration in nearly all bodily functions. This decline is attributed to anatomical, physiological, and biochemical changes, leading to dependency and consequently, a diminished quality of life [18-20].

In contrast to a study done by Barua et al. [11], the current study showed that the elderly who were educated had better mean QoL scores than the illiterates.

Similar to the study done by Medhi et al. [16], in the present study also, QoL was significantly associated with ADL. Those who had normal ADL had higher scores in all four domains.

In this study, the absence of co-morbidity was significantly associated with QoL. Those with no co-morbidities had higher scores in overall QoL, physical, and psychological domains.

Healthcare providers and caregivers will undoubtedly benefit from this study in identifying the factors associated with QoL, which will eventually contribute to the elderly population's improved quality of life.

Conclusion:

The overall QoL score was excellent among the elderly residing in old age homes, emphasizing the crucial role of emotional support and care, often lacking in their families. The positive outcomes underscore the significance of old age homes as vital replacements in today's fast-paced, nuclear family-oriented society. The shift from traditional family structures raises concerns about the well-being of future generations. The study calls for a re-evaluation of societal values, urging reflection on the preservation of generational ties within the family unit. While celebrating the success of old age homes, it advocates for a balanced approach, viewing them as supplementary support rather than replacements for familial connections. Fostering a culture that values intergenerational relationships is essential to ensuring a robust quality of life for the elderly and passing on a legacy of compassion to future generations.

Acknowledgment:

We acknowledge the participants who participated in this study. We are grateful to all the persons in charge of old age homes who permitted us, without whom this study would not have been conducted.

References:

1. Government of India. Sample Registration System Statistical Report 2020[Internet].2020[Cited 2 October 2023].Available from: https://censusindia.gov.in/nada/index.php/catalog/44376/download/48048/SRS_STS_2020.pdf
2. NIH Census Bureau Report.An aging India: 2015[Internet].2015[Cited 2 October 2023]. Available from: <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p95-16-1.pdf>
3. Ministry of Health and Family Welfare.National Programme for Health Care of the Elderly[Internet].2022[Cited 5 October 2023]. Available from:

4. Ministry of Social Justice and Empowerment.National Policy for Senior Citizens 2011[Internet]. 2011[Cited 5 October 2023].Available from: <https://socialjustice.gov.in/writereaddata/UploadFile/dnpsc.pdf>
5. Ministry of Statistics and Program Implementation. Government of India. Situation analysis of the elderly in India 2011[Internet].2011[Cited 5 October 2023]. Available from: <https://scirp.org/reference/referencespapers?referenceid=1104368>
6. Sivapragasam R, Rajini S, Kannan K. A Cross-sectional study about the quality of life among the elderly population in rural Puducherry. IJFCM 2019;6(2):86-92.
7. World Health Organisation [Internet].2023[Cited 5 October 2023]. Available from: https://en.wikipedia.org/wiki/World_Health_Organization
8. Lokare L, Nekar MS, Mahesh V. Quality of life and restricted activity days among the old aged. Int J Biol Med Res 2011;2(4):1162-1164.
9. WHO-QoL BREF Questionnaire[Internet].2023[Cited 4 October 2023].Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3395923>
10. Amonkar P, Mankar MJ, Thatkar P, Sawardekar P, Goel R, Anjenaya S. A Comparative Study of Health Status and Quality of Life of Elderly People Living in Old Age Homes and within Family Setup in Raigad District, Maharashtra. Indian J Community Med 2018; 43(1): 10–13.
11. Barua A, Mangesh R, Harsha Kumar HN, Mathew S. A cross-sectional study on quality of life in the geriatric population. Indian J Community Med 2007;32(2):146-147.
12. Foucade L A, Davis G, Baboolal N, Bethemie D, Laptiste C, Ali-Sisbane H, et al. The socio-economic determinants of multimorbidity

among the elderly population in Trinidad and Tobago. PLoS One 2020;15(9).

13. Gupta A, Mohan U, Tiwari SC, Singh Sk. Dimensions and determinants of quality of life among senior citizens of Lucknow, India. Int J Med Sci Public Health 2014;4(4):477-481.
14. Alexandre T da S, Cordeiro R C, Ramos L R. Factors associated with quality of life in active elderly. Rev Saude Publica 2009;43(4):613–21.
15. Qadri SS, Ahluwalia SK, Ganai AM, Bali SPS, Wani FA, Bashir H. An epidemiological study on quality of life among rural elderly population of Northern India. Int J Med Sci Public Health 2013;2(3):514-522.
16. Medhi GK, Sharma J, Pala S, Bhattacharya H, Bora PJ, Visi V. Association between health related quality of life (HRQOL) and activity of daily living (ADL) among elderly in an urban setting of Assam, India. J Family Med Prim Care 2019; 8(5): 1760–1764.
17. Sazlina SG, Zaiton A, Nor Afiah MZ, Hayati KS. Predictors of health-related quality of life in older people with noncommunicable diseases attending three primary care clinics in Malaysia. J Nutr Health Aging 2012;16(5):498-502.
18. Yesim A, Dilek D, Cengizhan D, Yüksel B, Ferhan C. Quality of life and level of depressive symptoms in the geriatric population. Arch. Rheumatol 2010;25(4):165-73.
19. Shraddha K, Prashantha B, Prakash B. Study on morbidity pattern among elderly in an urban population of Mysore, Karnataka, India. Int J Med Biomed Res 2012; Vol 1(3):215-223.
20. Lima MG, Barros MB, César CL, Goldbaum M, Carandina L, Ciconelli RM. Health-related quality of life among the elderly: A population-based study using SF-36 survey. Cad Saude Publica 2009;25(10):2159-67.
21. Sowmiya KR, Nagarani. A study on the quality of life of the elderly population in Mettupalayam, a rural area of Tamilnadu. Nat.J.Res.Com.Med 2012;1(3):139-143.
22. Krishnappa L, Gadicherla S, Priyadarshini C, Murthy NS. Quality of life (QOL) among older persons in an urban and rural area of Bangalore, South India. J Family Med Prim Care 2021; 10(1): 272–277.
23. Manandhar N, Joshi S K. Morbidity Pattern among Elderly Population of Changu Narayan Municipality, Bhaktapur. J Nepal Health Res Counc 2019;17(3):408-412.
24. Chaudhary M, Arokiasamy P. Patterns of Frailty and Quality of Life among Older Adults: Comparative Analysis Using SAGE States of India. J. Popul. Ageing 2017;12(1):1-23.

Table 1: Grading for Quality of life according to Score [9]

Score	Grade
22-44	Poor
45-66	Fair
67-88	Good
89-130	Excellent

Table 2: Socio-demographic profile of the study participants (n=144)

S. No	Variables	Frequency	Percentage (%)
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1.	Age		
	60-69	43	29.9
	70-79	70	48.6
	80-89	21	14.6
	≥90	10	6.9
2.	Gender Male Female	86	59.7
		58	40.3
3.	Residing area Urban Semi-urban	134	93.1
		10	6.9
4.	Religion Hindu Christian Muslim	11	7.6
		131	91
		2	1.4

5.	Education Illiterate		
	Primary Secondary		
	High-school	43	29.9
	Graduate	25	17.4
	Professional	31	21.5
		11	7.6
		28	19.4
		6	4.2
6.	SES		
	Upper Upper-	2	1.4
	middle Lower-	107	74.3
	middle	35	24.3

7.	Marital status		
	Married		
	Unmarried		
	Divorced	38	26.4
	Widowed	19	13.2
		3	2.1
		84	58.3
8.	Type of family		
	Nuclear	131	91
	Three generation		
	Joint	9	6.2
		4	2.8
9.	No of children		
	0	19	13.2
	1	10	6.9
	2	51	35.4
	3	46	31.9
	4	14	9.8
	5	4	2.8

10.	Addictive habits		
	Present	35	24.3
	Absent	109	75.7
11.	Physical activities		
	Yoga Exercise	2	1.4
	Walking		
	No	6	4.2
		47	32.6
		89	61.8

12.	Getting pension		
	Yes No	85	59
		59	41
13.	H/o Comorbidities		
	Yes No	127	88.2
		17	11.8
14.	Activity of Daily Living (ADL)		
	Assisted		
	Independent		
	Completely dependent	24	16.7
		78	54.2
		42	29.1

Table 3: Association of quality of life with various socio-demographic factors among the study participants

Variables	Physical score	Psychological score	Social score	Environmental score	Overall QoL
1. Age					
60-69	54.63±21.44	64±11.75	69.63±9.51	76.77±10.78	97.02±11.02
70-79	68.71±16.86	68.74±13.68	68.66±11.97	79.11±13.81	96.36±11.154
80-89	54.48±19.14	61.62±15.42	67.71±9.75	79.38±9.54	90.71±15.14
≥90	58.50±21.89	57.40±20.03	60.70±10.33	73.20±2.89	82.01±12.01
p-value	0.001	0.028	0.135	0.400	0.543
2. Gender					
Male	64.91±19.05	65.72±14.36	67.47±12.23	70.59±13.19	94.19±12.91
Female	59.57±20.49	65.35±14.19	68.70±10.08	78.35±11.07	99.36±10.86
p-value	0.117	0.877	0.008	0.028	0.010
3.SES					
Lower-middle	38±35.36	40.50±13.44	62.5±9.19	75±1.11	95.5±3.54
Upper-middle	60.64±21.36	65.57±14.41	67.84±11.84	78.68±11.93	97.44±11.73

Upper p-value	66.37±12 0.081	66.71±12.59 0.039	69.86±7.90 0.488	76.26±12.25 0.546	97.90±13.11 0.951
4. Education Illiterate Literate p-value	61.91±22.35 61.64±19.07 0.095	65.33±14.52 65.57±14.15 0.957	68.70±10.51 68.07±11.22 0.700	77.41±12.50 79.53±10.45 0.741	95.56±14.97 98.01±10.42 0.004
5. Residing area Urban Semi-urban p-value	61.69±19.64 58.60±25.70 0.611	66.34±13.50 54.30±19.18 0.009	68.78±10.83 61.30±11.01 0.037	78.58±11.51 70.80±15.43 0.046	105.10±8.97 96.69±11.97 0.031
6. Religion Hindu Christian Muslim p-value	62.37±19.62 56.73±25.24 47±12.73 0.389	65.5±13.93 64.82±16.81 47±4.24 0.136	67.87±11.27 63.91±4.51 62.50±9.19 0.163	80.28±11.46 78.28±9.11 47.5±21.92 0.001	97.85±12.08 93.00±11.31 91.18±9.32 0.181

7. Presence of co-morbidity					
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Yes No	59.52±19.93	63.98±13.80	67.93±10.74	77.62±12.27	96.54±12.27
p-value	78.18±11.29	76.82±12.26	76.82±12.26	81.18±8.582	102.82±7.367
	0.000	0.000	0.329	0.250	0.005
8.ADL					
Normal	68.54±15.01	69.31±12.43	69.55±11.08	78.25±13.28	98.62±12.87
Impaired p-value	45.17±21.14	56.24±14.14	65.12±10.18	67.52±7.84	76.73±11.58
	0.000	0.000	0.027	0.026	0.000
9. Getting a pension					
Yes No	61.85±19.79	69.62±12.90	71.01±8.89	79.64±10.39	97.60±11.08
p-value	61.63±20.52	60.68±15.59	64.29±12.47	66.75±13.62	85.81±13.20
	0.957	0.040	0.000	0.025	0.010

10. Doing physical activity Yes No p-value	70.84±19.12	71.11±14.19	68.51±8086	78.58±8.963	98.67±9.50
	56.09±18.52	62.03±13.14	67.85±13.81	77.76±15.64	96.42±13.12
	0.000	0.000	0.731	0.489	0.273
11. Addictive habits Present Absent	61.17±16.19	63.23±14.77	68.20±10.26	76.66±17.04	90.46±13.22
	61.90±20.99	66.23±14.01	68.43±13.26	78.49±9.80	99.47±10.69
	0.852	0.279	0.916	0.432	0.000

Fig 1: Distribution of the study subjects based on Overall Quality of Life Grading (n=144)

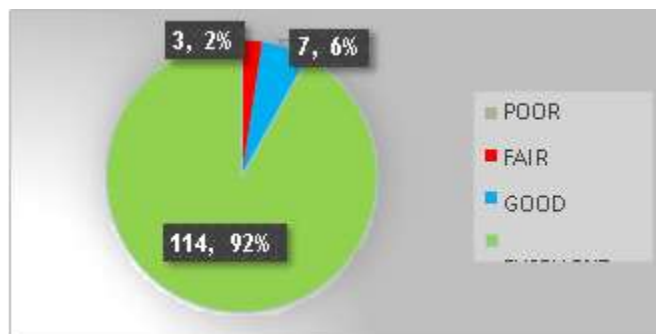
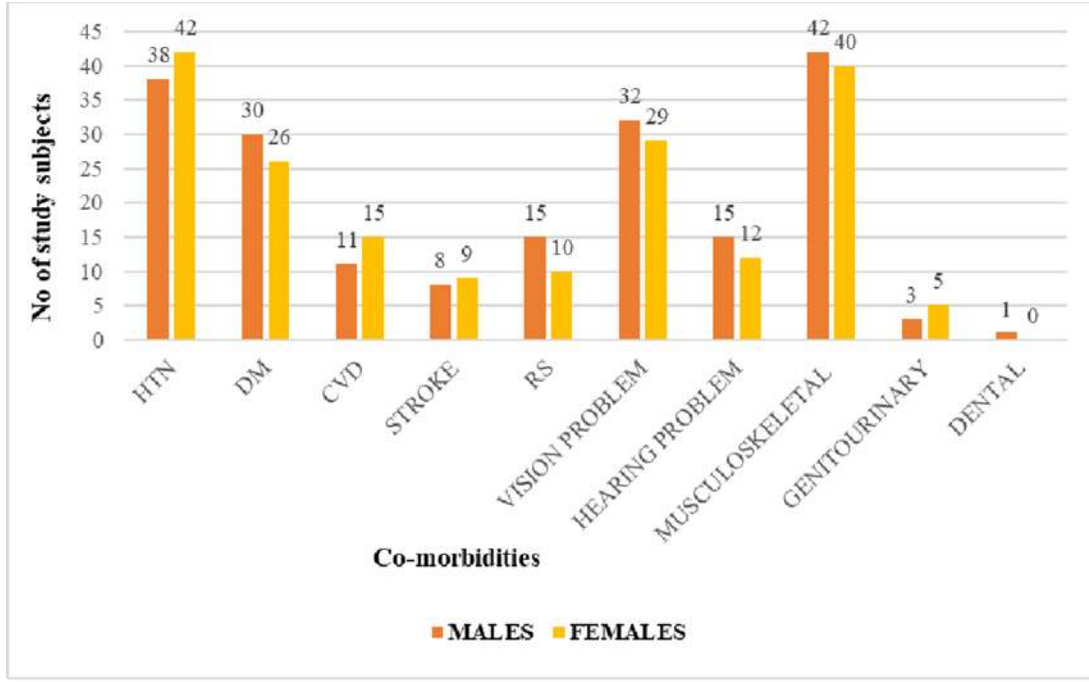


Fig 2: Distribution of Comorbidities among study subjects



(HTN-Hypertension, DM-Diabetes Mellitus, CVD-Cardiovascular Diseases, RS- Respiratory Diseases)