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ORIGINAL ARTICLE

Quality of life among geriatric population: A cross-sectional study to assess the quality of life among geriatric population covered under urban health training center of a tertiary care hospital in Kancheepuram, Tamilnadu

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ABSTRACT

Introduction: To assess the quality of life among geriatric population covered under urban health training center of a tertiary care hospital in Kancheepuram and to find out if there are any associated factors affecting them. **Methods:** This cross-sectional study was conducted at Saveetha Medical College, Chennai, India. It comprised geriatric population of males and females aged above 60 and 58 respectively. A pre tested semi structured questionnaire was used for collecting socio demographic data, whereas a WHO standard questionnaire was used to assess the QOL. Analysis was done using SPSS software. **Objectives:** To assess the quality of life among the geriatric age group and to assess the factors affecting the quality of life among the geriatric population. **Results:** Out of the 228 geriatrics interviewed, females (68.66) were found to have a better QOL when compared to males (67.85). The p values obtained from the chi square tests were found to be significant for age (0.056), marital status (0.004), family type (0.002), co morbid factors (0.001), alcoholics (0.00). **Conclusion:** From the study we could infer that co morbidity, marital status, type of family have a significant association with QOL.

Keywords: Geriatrics, Elderly, Quality of life(QOL), Significant association.

Introduction

Aging is a universal phenomenon that leads to a gradual decrease in physical and mental capacity, a growing risk of disease, and ultimately, death.[1] According to the Maintenance and Welfare of Parents and Senior Citizens (MWPSC) Act, a "senior citizen" means any person being a citizen of India, who has attained the age of sixty years or above for a male and fifty-eight years or above for a female.[2] The term geriatrics comes from the Greek *geron* meaning "old man", and *iatros* meaning "healer".[3] People worldwide are living longer. Today, for the first time in history, most people can expect to live into their sixties and beyond. The number and proportion of people aged 60 years and older in the population are increasing worldwide. In 2019, the number of people aged 60 years and older was 1 billion. This number will increase to 1.4 billion by 2030 and 2.1 billion by 2050. [4]

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The population in WHO South-East Asia Region is aging rapidly. While the proportion of people aged 60 or above was 9.8% in 2017, it will be increased to 13.7% and 20.3% by 2030 and by 2050, respectively.[5] According to Population Census 2011, there are nearly 104 million elderly persons (aged 60 years or above) in India; 53 million females and 51 million males. A report released by the United Nations Population Fund and Help Age India suggests that the number of elderly persons is expected to grow to 173 million by 2026.[6] The health issues older people face are diverse such as non-communicable diseases (NCDs), mental health including dementia, and injuries and disabilities due to declining functional ability.

Chronic diseases, like Hypertension, Coronary artery disease (CAD), COPD, Parkinson's, or Alzheimer's, impact the mental health of older adults. Apart from these a few of the geriatric population have the habit of consuming alcohol and substance abuse issues which may be neglected by their family members. In old age, bone health starts to deteriorate so they also tend to fall easily due to cognitive instability which may lead to fractures. Now there is also an increase in the number of cancer cases in the geriatric population. The presence of these diseases restricts the geriatric population to be independent and rather makes them dependent on others, so they often think and worry about the stress they induce on the caregivers which affect their mental health.

The World Health Organisation (WHO) has defined quality of life (QOL) as "an individual's perception of life in the context of culture and value system in which he or she lives and concerning his or her goals, expectations, standards, and concerns."[7]

Standard indicators of the quality of life include wealth, employment, the environment, physical and mental health, education, recreation and leisure time, social belonging, religious beliefs, safety, security, and freedom.[8]

Health-related quality of life (QOL) being poor among the elderly is frequently associated with physical deterioration, psychological trauma, and mental weakness. The rise in the social and health requirements of older adults has to be addressed for the well-being of society. Hence it is important to understand the Quality of Life and its associated factors among the geriatric population. [9]

Though studies have been conducted in India so far, only a few have been done in South India, especially in this part of South India to assess the quality of life of the geriatric population. It is also important to figure out the reasons for the good or poor quality of life among the geriatric population. With this backdrop, this study was done to assess the different domains of QOL and its association with socio-demographic factors among the geriatric population.

Materials and Methods

This cross-sectional study was done among the geriatric population in the field practice area under a tertiary care hospital in Chennai, India from February 2021 to April 2021. The sample size was about 228 geriatric people wherein the prevalence was calculated from a previous study (p=83, q=17, r=5).[10] Geriatrics who didn't give consent and those who were bedridden or disabled were excluded from the study. The geriatric register maintained by the peripheral health center of the tertiary care hospital was used to collect the residential addresses of the geriatric population and then the participants were selected using simple random sampling for those of them who met the eligibility criteria. A pretested, semi-structured questionnaire to assess the socio-demographic details and a WHO standard questionnaire to assess the Quality of life were administered.[11] The questionnaire had details about demographic data like age, gender, and religion followed by few questions to assess the quality of life. Scoring of QOL was done using WHOQOL-BREF criteria using the formula for a manual calculation.[12]

Physical domain – ([6 − Q3] + [6 − Q4] + Q10 + Q15 + Q16 + Q17 + Q18) × 4

Psychological domain – (Q5 + Q6 + Q7 + Q11 + Q19+ [6 − Q26]) × 4

Social relationship domain – (Q20 + Q21 + Q22) × 4

Environmental domain – (Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25) × 4

The responses were analyzed, QOL was calculated and were then checked if there were any associated factors affecting them to come to a conclusion on whether they were leading a good or poor quality of life. The cross sectional questionnaire based study was undertaken after obtaining Institutional Ethical Clearance at Saveetha Medical College and Hospitals, Chennai. Data confidentiality was maintained throughout. Percentage and graphs were used for statistical analysis. Data were evaluated in ***EPI*** info software for chi-square analysis.

Results

Total of 228 geriatric people (58 and above for females, 60 and above for males) were a part of the study. Mean age of the study population was found to be 68.4 years with a standard deviation of 5. The age groups were distributed across a class interval of 5, i. e; numbers of people belonging to the age group of 58 – 62 were 40 (17.54%), 63-67 were 75 (32.89%), 68 – 72 were 62 (27.19%), 73 – 77 were 30 (13.16%), 78 – 82 were 15 (6.58%), 83 – 87 were 6 (2.63%). Females (n=127) were found to outweigh the males (n=101) in the study. Only a handful were found to be illiterate (n=33) where as the rest had at least completed their primary school (n=195) **(Table- 1).**

In the present study geriatrics belonging to the joint family was found to be 55.7%, whereas the ones belonging to the nuclear and 3 generation family were found to be 55.7% and 14.04% respectively **(Table-1).**

Table -1: Socio-demographic profile of geriatric population (N=228)

Socio-demographic Profile		No.	%
Age (years)	58 – 62	40	17.54
	63 – 67	75	32.89
	68 – 72	62	27.19
	73 – 77	30	13.15
	78 – 82	15	6.57
	83 – 87	06	2.66
Sex	Male	101	44.3
	Female	127	55.7
Marital status	Married	188	82.46
	Separated	06	2.63
	Widow/widower	34	14.91
Educational status	Illiterate	33	4.82
	High school	110	48.24
	Graduate and higher	85	37.28
Occupational status	Employed/self employed	31	13.6
	Retired	109	47.8
	Housewife	88	38.6
Type of family	Nuclear family	69	30.26
	Joint family	127	55.7
	3 generation family	32	14.04
Total		**228**	**100.0**

The quartile distribution of quality of life was tabulated as poor (0.43%), moderate (7.46%), good (80.71%) and very good (11.4%). [13] (Table- 2).

Table- 2: Quartile distribution of Quality of life (QOL) (N=228)

Total QOL score	No.	%	Quality of Life (QOL)
0 – 25	1	0.43	Poor
26 – 50	17	7.46	Moderate
51 – 75	184	80.71	Good
76– 100	26	11.4	Very good
*Tabulation reference [13]			

Table- 3: Mean QOL across 4 domains (N=228)

Mean score domain of QOL	Mean QOL
Physical domain	64.69
Psychological domain	67.35
Social domain	69.30
Environmental domain	71.88

Table 4: Variation of QOL wrt gender among the 4 domains (N=228)

Quality of Life (QOL)		Physical domain	Psychological domain	Social domain	Environmental Domain	Mean QOL
Gender	Male (n=101)	64.92	66.77	68.48	71.21	67.85
	Female (n=127)	64.5	67.81	69.95	72.41	68.66

Most of the geriatrics was diagnosed with one or the other co-morbidities, the most common ones among them were diabetes mellitus, hypertension, and arthritis. The highest mean score was found in environmental domain (71.88%) and the lowest was for the physical domain (64.69%) (Table- 4).

Table - 5: Variation of QOL wrt education and marital status (N=228)

Qualify of Life (QOL)		Mean of overall QOL
Educational Status	Illiterate (n=33)	65
	Literate (n=195) *	69
Marital Status	Married (n=188)	70
	Separated (n=6)	63
	Widow/widower (n=34)	62

*Literates include primary school and above.

Table- 6: Effect of smoking & alcohol on QOL (N=228)

QOL	Mean of overall QOL
Smoker	57
Non smoker	69
Alcoholic	59
Non alcoholic	69

Gender, education and marital status had their own impact on the various domains and thus on the whole impacting the quality of life was studied by using chi square test. Females tended to have a better comparable QOL compared to the males (Table-7).

Table- 7: Distribution of QOL wrt Gender, Marital status and Family type (N=228)

QOL		No.	Poor		Moderate		Good		Very good		P value
Gender	Female	127	1	0.78	9	7.08	104	81.88	13	10.26	0.743
	Male	101	0	0.0	8	7.92	80	79.2	13	12.88	
Marital Status	Married	188	0	0.0	9	4.78	158	84.04	21	11.12	**0.004**
	Widow/ widower	34	1	0.02	7	20.58	21	61.76	5	14.74	
	Separated	06	0	0.0	1	17.67	5	83.33	0	0.0	
Family Type	Nuclear family	69	1	1.45	10	14.09	48	69.57	10	14.49	**0.002**
	Joint family	127	0	0.0	2	1.57	114	89.76	11	8.66	
	Generation Family	32	0	0.0	5	15.62	22	98.75	5	15.63	

Discussion

A cross-sectional study was carried out among geriatric populations residing at the field practice area under the urban health training center. Total of 228 geriatric age group people were interviewed. Mean age of the study population was 68.4 years with standard deviation of 5 years. Female population 55.7% outnumbered males 44.3% in this study. More than two-thirds 82.46% of geriatrics were married and having spouse alive. Educational status of study population showed that 14.47% (n=33) were illiterate whereas 37.28% (n=85) of them had pursued higher studies. Geriatrics population living in a joint family constitutes 55.7% (n = 127). Fair proportions 86.4% (n = 197) of geriatrics were supported by their family for their monthly expenditures whereas the rest relied upon their savings, pension, or were running small businesses.

In the present study, most of the geriatrics 94.73% (n=216) had one or the other co-morbidities whereas 5.27% (n=12) were co-morbid free. The most prevalent one among them was hypertension, diabetes mellitus, and arthritis.

Non-smokers (n=215) and non-alcoholics (n=214) were found to have a better QOL (69%) compared to those who smoke and consume alcohol (58%). This must have been mostly because these people would have got into the habit of smoking and alcoholism due to poor QOL.

Due to the drastic fold of rise in life expectancy and increased health expenditure, domain scoring became necessary. Scoring of QOL profile revealed that in the present study, only one of the geriatric had “poor” QOL, whereas 11.4% (n=26) fall into category “very good” and 80.7% (n=184) were having “good” QOL. Similar findings were found in the research by Venu R[1] who revealed that majority (56%) of elderly had good QOL whereas none had poor. Mean score for the four different domains, namely, physical, psychological, social relationship, and environmental were illustrated for QOL. Mean score of environment domain was maximum (71.88%) as compared to other three domains. Lowest mean score was found for physical domain (64.69). Similar presentation was seen in the study done by Sowmiya and Nagarani in Mettupalayam, Tamil Nadu[13], where the highest score was for the social relationship domain.

Even though there was not a big difference between the QOL determined by the 4 domains among both males and females. Females (n=127) outweighed the males (n=101) by having a better comparable QOL of 69% whereas the males had a QOL score of 68%. Males outweighed females in the physical domain alone as 64.92% and 64.5%

respectively. The QOL was better in individuals who were educated These findings were similar when cross-checked with another study done by Bhatia S.P.[14]

The p values obtained from the chi square tests were found to be significant for age (0.056), marital status (0.004), family type (0.002), co morbid factors (0.001), and alcoholics (0.00). (<0.05 was considered as significant).Even though we expected gender (0.743), educational status (0.018) and occupational status (0.235) to be significant it did not turn out that way.

The QOL among the married and living with their spouse were better when compared with those who were separated or in the case of widow/widowers. This was similar to the findings in a study done by Barua A.[15] This is mostly because the presence of spouse would help the other one be more active, confident both physically and mentally, which is lacking in the case of separated, widow and widowers.

Conclusion

As we all know that aging is an inevitable process from the phrase "Womb to tomb", we must introduce certain specific measures to limit the process of aging to preserve the quality of life to a greater extent. Almost 95% of the geriatrics under this study had one or the other co-morbidity affecting them which thereby influenced their QOL. Apart from these the problem of them living separately, source of income, socioeconomic needs, health care facilities, recreational activities, and social security add to their burden. More multi-disciplinary studies must be performed in this particular field to decrease the challenges faced by them and simultaneously enhance their QOL. Reinforcement of elderly care must be done at the grass-roots level for children and school-going kids. The government must plan and impose welfare programs in favour of the elderly and aid them every month so that they can live a long way hail and healthy

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References

1. Elderly Health, What Is Aging? [Internet]. Ministry of health. 2021 [cited 21 October 2021]. Available from: https://www.moh.gov.sa/en/HealthAwareness/EducationalContent/Health-of-Older-Persons/Pages/What-Is-Aging .aspx
2. Government to ensure 60-year limit followed for senior citizen benefit [Internet]. The Economic Times. 2021 [cited 21 October 2021]. Available from: https://economictimes.indiatimes.com/ ews/politics-and-nation/ government-to-ensure-60-year-limit-followed-for-senior-citizen-benefit/articleshow/58326385.cms? from=mdr
3. Geriatrics - Wikipedia [Internet]. En.wikipedia.org. 2021 [cited 21 October 2021]. Available from: https://en.wikipedia.org/wiki/Geriatrics.
4. Ageing [Internet]. Who.int. 2021 [cited 21 October 2021]. Available from: https://www.who.int/ ealth- opics/ ageing# tab=tab_1.
5. Ageing [Internet]. Who.int. 2021 [cited 21 October 2021]. Available from: https://www.who.int/ outheastasia/ health-topics/ageing .
6. Vkaspedia Domains [Internet]. Vikaspedia.in. 2021 [cited 21 October 2021]. Available from: https://vikaspedia.in/ social-welfare/senior-citizens-welfare/ senior-citizens-status-in-india.
7. World Health Organisation. WHOQOL-BREF: Introduction, Administration, Scoring and Generic Version of the Assessment. Programme on mental health. Geneva: WHO; 1996. [Internet]. http://www.who.int/mental_health/ media/en/76.pdf. [Google Scholar]. 2021 [cited 21 October 2021]. Available from: http://www.who.int/ mental_health/media/en/76.pdf . [Google Scholar]

8. Barcaccia, Barbara (4 September 2013). "Quality Of Life: Everyone Wants It, But What Is It?". Forbes/ Education. Retrieved 10 May 2016.

9. Determinants of quality of life among the elderly population in urban areas of Mangalore, Karnataka Available from https://www.jgmh.org/article.asp?issn=2348-9995;year=2019; Vol 6 ;issue=2;spage=94; epage=98;aulast= Devraj

10. Koivunen K, Portegijs E, Sillanpää E, Eronen J, Kokko K, Rantanen T. Maintenance of high quality of life as an indicator of resilience during COVID-19 social distancing among community-dwelling older adults in Finland. Quality of Life Research. 2021 Sep 27:1-0.

11. WHOQOL - Measuring Quality of Life. The World Health Organization [Internet]. Who.int. 2021 [cited 21 October 2021]. Available from: https://www.who.int/tools/whoqol

12. WHOQOL-BREF [Internet]. WHO.int. 2021 [cited 21 Oct. 2021]. Available from: https://www.who.int/ mental_ health/ media/en/76.pdf

13. Sowmiya KR and Nagarani. A Study on Quality of Life of Elderly Population in Mettupalayam : A Rural Area of Tamilnadu. Natl J Res Community Med, 2012;1:123–77.

14. Bhatia SP, Swami HM, Thakur JS, Bhatia V. A study of health problems and loneliness among the elderly in Chandigarh. Indian Journal of Community Medicine: Oct–Dec 2007 - 32 (4), 255-258.

15. Barua A, Mangesh R, Harsha Kumar HN, Mathew S. A cross-sectional study on quality of life in geriatric population. Indian Journal of Community Medicine: Oct–Dec 2007 - 32 (2), 146.

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