International Journal of Community Medicine and Public Health
Ahmed MT et al. Int J Community Med Public Health. 2017 Oct;4(10):3842-3845
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20174261

Original Research Article

Assessment of quality of life and activities of daily living among geriatric population in Bengaluru city

Mohamed Tanveer Ahmed, Jyothi Jadhav*, Ranganath Timmanahalli Sobagaiah, Vishwanatha

Department of Community Medicine, Bangalore Medical College and Research Institute, Bangalore, Karnataka, India

Received: 07 August 2017
Accepted: 30 August 2017

***Correspondence:**
Dr. Jyothi Jadhav,
E-mail: tanuahmed15@gmail.com

ABSTRACT

Background: Developing countries including India are in epidemiologic health transition resulting in increased life expectancy and increase in geriatric population. Geriatric population is considered the most vulnerable population. Many factors such as age, income, education, environment have a significant impact on quality of life. Hence our study aims at assessing the Quality of life and activities of daily living among geriatric population in Bengaluru city.
Methods: A cross sectional study was carried out for a period of 3 months - August to October 2016 among 250 geriatric study participants residing in the slums of Bangalore. Data was collected using WHOQOL-BREF scale and Katz Index of Independence of Activities of Daily Living by interview method.
Results: Out of 250 study participants, males were 127 (50.8%) and females were 123 (49.2%). Quality of life was found to be average with a mean score of 50.02 (11.13) and with a least score of 44.55 (12.54) for environmental domain.
Conclusions: Significant association was found between quality of life and factors like age, functional capacity, education and environment. Improving access of elderly to health facilities, providing health education, psychological support, and modification of environment helps to improve the quality of life among aged population.

Keywords: Quality of life, Geriatric population, Physical, Social and psychological domain, Functional capacity

INTRODUCTION

According to WHO, quality of life is defined as an individual's perception of their position in life in the context of the culture and values systems in which they live and in relation to their goals, expectations, standards and concerns.[1] Hence it is a sense of well being resulting from combination of physical, social, psychological and environmental factors.

Elderly are considered to be the vulnerable population; therefore Quality of life among them is an important area of concern which reflects their health status and well-being.[2] In most of the developing countries including India there is demographic transition which has resulted in increased life expectancy and increased proportion of elderly population. The share of India's population aged 60 and older is projected to climb from 8 percent in 2010 to 19 percent in 2050, according to the United Nations Population Division (UN 2011).[3] Quality of life is multi-dimensional in nature which is influenced by life style, life satisfaction, health status, mental state and overall well being.[4] The epidemiological transition with a shift of disease spectrum from infectious to non-communicable diseases has led to increased life expectancy and burden of chronic co- morbid conditions like diabetes mellitus, hypertension, musculoskeletal disorders and visual problems.[5] These chronic diseases will cause limitation in functional abilities and hence inability to perform basic

daily activities of life. Poor social, economic, cultural, educational and health care conditions do have a detrimental effect on the quality of life of this vulnerable population.

There are various concepts and concerns that should be considered to evaluate the quality of life among elderly compared to general population such as State of health, dependency, material circumstances and social comparisons.[6] Providing care to the elderly population and enhancing their ability to cope with changes in health, income, social relationships is the prime responsibility of the family. Family provides the psychological support and the cultural norms to the elderly which is very crucial for their overall well-being.

Hence this study was conducted considering the importance of providing care to elderly and improving their living conditions to boost their self-confidence and uplift their quality of life.

METHODS

A cross sectional study was conducted for a period of 3 months from August 2016 to October 2016. Based on the standard deviation of 10.21 from the previous study done by Kumar et al in Urban Puducherry, allowable error of 1.3 and Non-response rate of 5%, the sample size was 247 and then rounded off to 250. Data was collected after taking consent from study subjects. Simple random sampling method was used to collect the data. Out of the 12 slums under urban health training centre, 5 slums were selected randomly and 50 study participants were selected from each slum. Data was collected by interview method using validated and tested WHOQOL-BREF scale[7] and ability to carry out daily activities was measured by Katz Index of Independence of Daily Living.[8] Confidentiality was maintained. Study participants who had completed 60 years of age and who were the permanent residents of the area were included in the study.

Data was entered in excel sheet and analysis was done by SPSS software version 23. Findings were expressed in terms of means and standard deviations. The difference between mean scores was tested using independent sample t-test. P<0.05 was considered significant.

RESULTS

Most of the study participants are in the age group of 60-65 years accounting for 46% (115). About 50.8% (127) were males. Majority of them were Hindu (165; 66%), Muslims (55; 22%) and Christians (30; 12%).

About 39.2% (98) had schooling. The common morbidities found were diabetes -26% (65) and hypertension- 10.8% (27).

Table 1: Age and sex wise distribution of study subjects.

Age in years	Male (%)	Female (%)
60-65	45 (18)	70 (28)
65-70	37 (14.8)	33 (13.2)
70-75	35 (14)	7 (2.8)
75-80	10 (4)	10 (4)
>80	0 (0)	3 (1.2)
Total	127 (50.8)	123 (49.2)

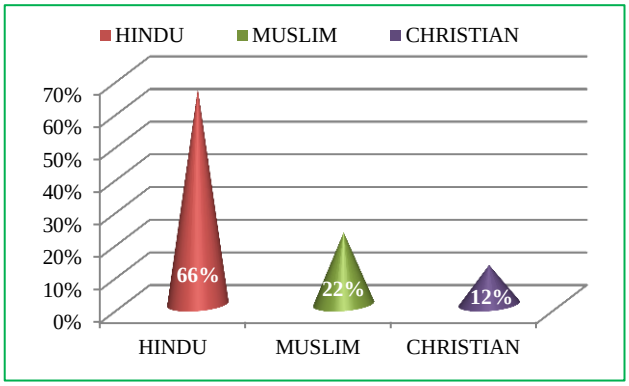

Figure 1: Distribution of study participants according to religion.

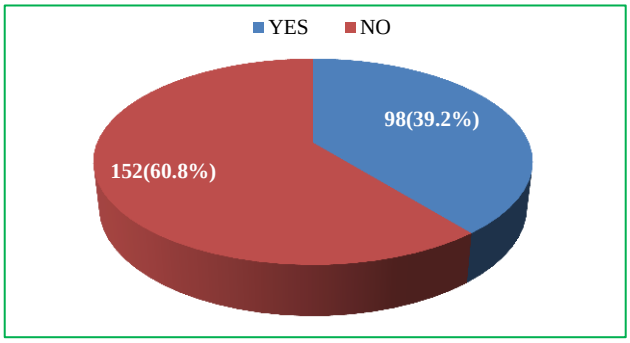

Figure 2: Distribution of study participants according to schooling.

Table 2: Scores for different domains of quality of life.

Domains of Quality of Life	Number	Mean (SD)
Physical	250	48.41 (9.58)
Psychological	250	47.89 (10.14)
Social	250	59.23 (12.27)
Environmental	250	44.55 (12.54)
Total	250	50.02 (11.13)

For overall quality of life, the total mean score was 50.02 (11.13) with a highest mean score of 59.23 (12.27) for social relationship domain and a lowest score of 44.55 (12.54) for environmental domain. This indicates that, environmental factors were poor in the slum area.

Table 3: Association between Quality of life and age.

Domain	Age in Years	Number of participants	Mean (SD)	P value (<0.05)
Physical	<=70	185	50.42 (9.43)	
	71 and above	65	42.69 (7.64)	0.00
Psychological	<=70	185	50.16 (9.61)	
	71 and above	65	41.42 (8.87)	0.00
Social	<=70	185	61.47 (12.65)	
	71 and above	65	52.85 (8.50)	0.00
Environmental	<=70	185	47.08 (12.11)	
	71 and above	65	37.35 (11.02)	0.00

Table 4: Association between functional capacity and quality of life.

Domain	Functional ability	Mean (SD)	P value (0.05)
Physical	Normal	50.09 (8.96)	0.00
	Impaired	38.07 (6.40)	
Psychological	Normal	49.93 (8.77)	0.00
	Impaired	35.36 (9.13)	
Social	Normal	61.17 (11.12)	0.00
	Impaired	47.29 (12.66)	
Environmental	Normal	46.62 (11.70)	0.00
	Impaired	31.86 (9.96)	

Table 5: Inter-relationship between different domains and diabetes.

Domain	Diabetes	Number (%)	Mean	P value (<0.05)
Physical	Present	65 (26)	44.81 (7.74)	0.02 (S)
	Absent	185 (74)	49.68 (9.89)	
Pshychological	Present	65 (26)	47.81 (8.01)	0.9 (NS)
	Absent	185 (74)	47.92 (10.84)	
Social	Present	65 (26)	57.58 (8.11)	0.4 (NS)
	Absent	185 (74)	59.81 (13.43)	
Environmental	Present	65 (26)	38.88 (9.47)	0.00 (S)
	Absent	185 (74)	46.54 (12.92)	

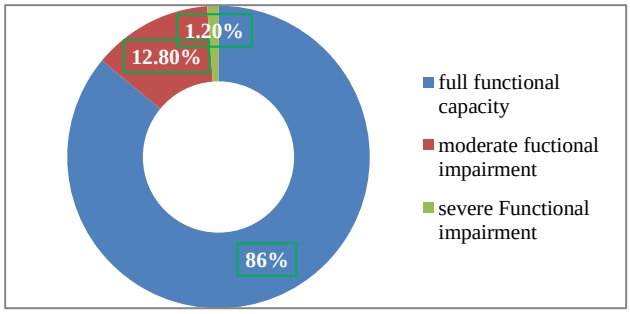

Figure 3: Distribution of study participants according to functional capacity.

Independent t-test showed that there was a significant association between schooling and physical and environmental domain of life. Age had a significant impact on all the four domains. We also found that sex didn't have any influence over any of the domain. About 86% (n=215) had full capacity to carry out their daily activities followed by 12.8% (n=32) were moderately impaired and 1.2% (n=3) had severe functional impairment. Functional capacity also had a significant association on all the domains of life. Physical and environmental domain were affected because of their diabetic state ($p<0.05$). Significant association was found between hypertension and environmental domain ($p<0.05$).

DISCUSSION

Quality of life is a multi-dimensional aspect with involvement of many factors.

In our study we found that the quality of life was average with a mean score of 50.02 (11.13). The social relationship domain had highest mean score of 59.23. This indicates that their social support and relationship with their friends and relatives had a significant impact on their quality of life. In a similar study conducted by Ganesh Kumar et al the mean score for social relationship domain was lowest while the scores of other 3 domains namely physical, psychological and environmental were similar.[9]

In our study it was found that, Schooling had a significant association with the physical and environmental domains of life. There is an inverse relationship of age and quality of life with respect to all the domains, which is comparable to a study conducted by Sowmya et al at Mettupalyam, Tamil Nadu.[10] We could also found that functional dependency in turn resulted in poor quality of life, as found in a study done by Kaur et al in Rohtak, Haryana.

There was a significant association of physical and environmental domain with the occurrence of Non-Communicable diseases like DM and Hypertension.

CONCLUSION

In our study, Majority of the participants were young old having an average score for quality of life. Factors like age, functional dependency have an inverse relation with quality of life. As the age advances they become functionally more dependent on the family and results in psychological disturbance and hence hampering the quality of life with respect to all the domains. Sex as such does not have a significant impact on quality of life indicating that both elderly men and women share similar thoughts and belief about ageing. Physical and Environmental domain do have an influence in development of NCD's and hence Elderly should be made known the importance of regular physical exercise, healthy diet, calm and quiet atmosphere. Even though ageing and disabilities of old age is universal and non-preventable we should learn the art of making it healthier through multidisciplinary measures. Economical in-dependence, social security and support by the family, regular health checkups and health seeking behavior, legal security and special schemes for elderly will improve their quality of life and helps them to live longer and happier.

ACKNOWLEDGEMENTS

Author expresses thanks to Dr. Devdass PK, Dean Cum Director, BMCRI, Dr Ranganath TS, Professor and Head, Dept of Community Medicine, BMCRI and all faculty and PG's of Dept of Community Medicine, BMCRI for their useful contribution in carrying out this study.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. WHO, WHOQOL: Measuring Quality of Life. Who.int. 2013. Available at: http://www.who.int/healthinfo/survey/whoqol-qualityoflife/en/ Accessed on 3 June 2017.
2. Praveen V, Rani AM. Quality of life among elderly in a rural area. Int J Community Med Public Health. 2016;3:754-7.
3. India's Aging Population. Prb.org. 2017. Available from: http://www.prb.org/Publications/Reports/2012/india-older-population.aspx. Accessed on 12 June 2017.
4. Barua A, Mangesh R, Harsha Kumar H, Mathew S. Assessment of the domains of quality of life in the geriatric population. Indian J Psychiatr. 2005;47(3):157.
5. McKeown R. The Epidemiologic Transition: Changing Patterns of Mortality and Population Dynamics. Am J Lifestyle Med. 2009;3(1 Suppl):19S-26S.
6. Kaur H, Kaur H, Venkateashan M. Factors determining family support and quality of life of elderly population. Int J Med Sci Public Health. 2015;4(8):1049.
7. Quality of life (WHOQOL) – BREF. World Health Organization. 2017. Available at: http://www.who.int/substance_abuse/research_tools/en/english_whoqol.pdf. Accessed on 14 June 2017.
8. Katz Index of Independence in Activities of Daily Living (ADL) 2017. Available at: http://micmrc.org/system/files/11.2-ADL.pdf Accessed on 3 June 2017.
9. Kumar SG. Quality of Life and Its Associated Factors Using WHOQOL- BREF Among Elderly in Urban Puducherry, India. J Clin Diagnos Res. 2014;8(1):54–7.
10. KR S. A Study on Quality of Life of Elderly Population in Mettupalayam, A Rural Area of Tamilnadu. National J Res Community Med. 2012;1(3):123-77.

Cite this article as: Ahmed MT, Jadhav J, Sobagaiah RT, Vishwanatha. Assessment of quality of life and activities of daily living among geriatric population in Bengaluru city. Int J Community Med Public Health 2017;4:3842-5.