

A STUDY ON QUALITY OF LIFE SATISFACTION & PHYSICAL HEALTH OF ELDERLY PEOPLE IN VARANASI: AN URBAN AREA OF UTTAR PRADESH, INDIA

Dharma Raj¹, Prafulla Kumar Swain², Sarang P Pedgaonkar³

¹ Department of Statistics, Banaras Hindu University, Varanasi, Uttar Pradesh, India

² Department of Statistics, Faculty of Mathematical Sciences, University of Delhi, Delhi, India

³ International Institute for Population Sciences, Mumbai, Maharashtra, India

Correspondence to: Prafulla Kumar Swain (prafulla86@gmail.com)

DOI: 10.5455/ijmsph.2014.140320145

Received Date: 05.03.2014

Accepted Date: 14.04.2014

ABSTRACT

Background: Longevity has increased significantly in the last few decades mainly due to the socio-economic and health care developments. These factors are responsible for the higher numerical presence of elderly people leading to change in age structure, and a higher dependency ratio. In this juncture we need to reappraise the quality of life of elderly people.

Aims & Objective: The main objective of this paper is to study the quality of life of elderly people of Varanasi city, India.

Materials and Methods: A cross sectional study was conducted of elderly people living in the four colonies (Mahamana Puri, Sundarpur, Nagwan, Samne Ghat) of Varanasi city. The results are expressed in terms of Mean and SE of mean. Chi-Square test, t-test and one-way ANOVA test have been used to compare the mean scores of quality of life score based on different variables under the domain of Physical Health, Interpersonal life, Economic status, Physical Environment.

Results: A total of 166 old age people were included in this study. Out of 166 elderly people 121(72.89%) were Males and remaining were females. The mean age of the study population was found to be 63.95 ± 6.08 years. Majority of them were literate (95.18%). Eye sight weakness is the most prominent problem among the elderly. An overwhelming majority (61.45%) of elderly had an average quality of life, where as 24.10% and 14.45% elderly had a poor and good quality of life respectively.

Conclusion: Majority of elderly had an average quality of life quality of life. There is an urgent need of social protection in form of assuring old age pension and compulsory health insurance.

Key Words: Elderly People;, Ageing;, Quality of Life

Introduction

Ageing is a normal, inevitable, biological and universal phenomenon, and it affects every individual irrespective of caste, creed, rich and poor. It is the outcome of certain structural and functional changes takes place in the major parts of the body as the life years increases. As Sir James Sterling Ross said "You do not heal old age, you protect it, you promote it and you extend it". The ageing population is growing at an unprecedented rate. There are presently 740 million individuals in the world aged 60 years or over, and that number is expected to rise to 1 billion by the end of the present decade and possibly to 2 billion by mid-century.^[1] India alone has around 100 million elderly at present, and the number is expected to increase to 323 million, constituting 20 per cent of the total population, by 2050.^[2] According to 2011 census the size of elderly population (aged 60 and above) was 7.1 million in Uttar Pradesh and expected to reach 12.17 percent of the overall population by 2026.

Longevity has increased significantly in the last few decades mainly due to the socio-economic and health care developments. These factors are responsible for the higher

numerical presence of elderly people leading to change in age structure, and a higher dependency ratio. In this juncture we need to reappraise the quality of life of elderly people.

As we all know elderly are the precious asset of our country, Their rich experience and wisdom would act as a mentor/guide to the progress of our nation. The life of elderly becomes more difficult when problems related to fulfilment of basic requirements such as social relations; personal care, nutrition and accommodation are added to old age health problems.

Quality of life for elder person has become increasingly important as an outcome in public health research. To determine the quality of life is a subjective matter, and one should consider these factors like physical functioning, cognitive functioning, social functioning, emotional functioning, life satisfaction, health perceptions, economic status, recreation, sexual functioning, energy and vitality while measuring the quality of life.^[3] The World Health Organization (WHO) defined quality of life as "an individual's perception of their position in life in the context of the culture and value systems in which they live

and in relation to their goals, expectations, standards and concerns". The WHO definition of QOL has a broad meaning it includes physical health, mental state, level of independence, social relationships, personal beliefs and their relationship to salient features in the environment.^[4]

Although there are several studies on quality of life of elderly has been conducted in India, Syed Qadri et al.2013, has studied the quality of life of rural elderly people of northern India. Barua. A et al. 2005 carried out a cross sectional study on quality of life of geriatric population of Karnataka.^[5] Shraddha K et al. 2012, had made an attempt to study the morbidity pattern among elderly urban population of Mysore, Karnataka.^[6] Swami HM et al. 2002, developed a community based study of the morbidity profile among elderly people.^[7] Khokhar and Mehra (2001) has conducted a study on life style and morbidity profile of geriatric population in an urban community of Delhi.^[8] In this paper our main objective is to study the quality of life of elderly people living in the four colonies (Mahamana Puri, Sundarpur, Nagwan, Samne Ghat) of Varanasi city, Uttar Pradesh, India. Varanasi is one of the oldest and densely populated cities of India. To the best of our knowledge there are no such studies has been conducted on quality of old age persons residing in the urban areas of Varanasi. This work may serve as a baseline and also would be helpful in formulation of planning and policy for old age people in this area.

The overall aim of the study is to determine the quality of life elderly people Varanasi, also to investigate the factors which are important for their quality of life, as well as to explore the impact of residence, category, gender, education, no. of family members, marital and health status on individual perceptions. The specific objectives are, (1) To assess the quality of life and physical health of elderly people aged 55 years and above; (2) To study the various factors associated with their satisfaction with quality of life.

Materials and Methods

The study was conducted in the four colonies (Mahamana Puri, Sundarpur, Nagwan, Samne Ghat) of Varanasi city, Uttar Pradesh. We have used a convenient sampling technique to collect sample. Data was collected by making a personal interview based on Social-Demographic data sheet and Quality of life scale – WHOQOL-BREF version^[9], of the elder people (above 55 years age) by door to door visit. Before data collection a voluntary consent was taken from the respondent if they agreed to participate in the survey, also they were free to withdraw at any point. Although this convenient sampling method is not a

scientific way to collect data, we have adopted because of our resource constraints and this result could be treated as a preliminary outcome to carry further research study. With a non-response rate of 17%, a total of 200 elderly persons were interviewed through a self-made questionnaire based on WHOQOL-100.

Thus finally 166 convenient selected people aged from 55 years and above were included in our study. The interview schedule consists of detailed information on demographic, socio- economic and health status. These information's were grouped into many categories, such as Physical Health, Interpersonal life, Economic status, Physical and Environment facilities, etc.

Quality of life is described by the satisfaction level inside the home and outside the home life each based on three components. Satisfaction level inside the home life is consists of satisfaction about physical health, interpersonal life and economic status. Similarly satisfaction level outside home life is considered by satisfaction about public facility, environment facility and government facility for older age. The detail descriptions of different categories have been given below. The mean score for each domain was calculated by giving weight to each category. A maximum score 40 was given to interpersonal life and score 20 weight was given to physical health, and remaining all other domain had an equal weight score of 10. Also the model has been depicted in figure 1.

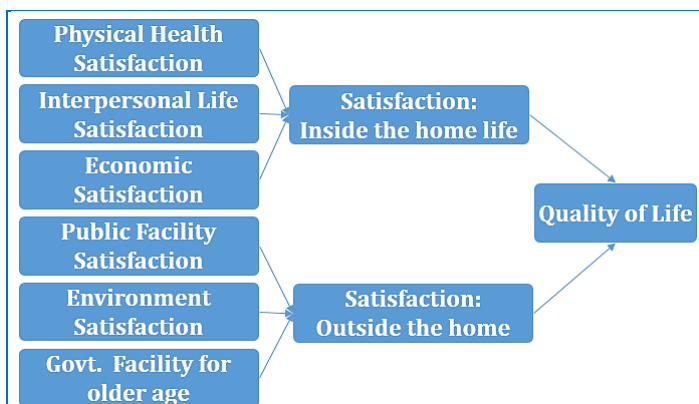


Figure-1: Domain Model

(A) *Physical Health*: (I) Satisfaction with health treatment; (II) Health status of other people of their age. (B) *Interpersonal life*: (I) Support from family; (II) Family member respects them and shares their joy and sorrow; (III) Satisfied with the behaviour of their family members; (IV) Satisfied with their leisure time. (C) *Economic status*: (I) Satisfied with their present economic status. (D) *Public Facility*: (I) Satisfied with the public facilities viz. Electricity supply, Water supply, LPG supply, Hospital, etc. (E) *Environment facility*: (I) Satisfied with environmental

facilities such as Sanitation facility, Road, Park, Police and Administration, etc. (F) Government facility for older age: (I) Satisfied with government facilities for old age persons like old age home, old age pension etc.

All the six components having their relative value according to not satisfied, partial satisfied and fully satisfied. The results are expressed in terms of mean and SE of mean. Chi-Square test, t-test and one-way ANOVA test have been used to compare the mean scores of quality of life score based on different variables under the domain of Physical Health, Interpersonal life, Economic status, Physical Environment. All the statistical analysis has been conducted by using SPSS 16.0 Version.

Results

The table 1 shows the descriptive statistics, Out of 166 elderly people 121 (72.89%) were Males and remaining 45 (27.11%) were females. The mean age of the study population was found to be 63.95 ± 6.08 years. The proportion of the young old (55-59yrs), the old –old (60-69yrs) and the elder –old (70 & above) was found to be 22.89%, 56.63% and 20.48% respectively. It was observed that most of them are original inhabitant of this area, some 23% were migrated to this place. Another significant findings of our study was that majority of them were literate (95.18%) and more than two third had an educational qualification metric/intermediate level. Currently 132 (79.52%) Individuals were enjoying a happy married life, while 34 (20.48%) individuals were either widowed/widower or living separately. The majority elderly were living with their spouse and children. It was observed that 44.58% of the individuals having independent source of income and only 16.27% of the elderly were depending upon their spouse while 39.16% of elderly were economically depending on their other family members.

From the table 2, we can observe that the eye sight weakness is the most prominent problem among the elderly. The arthritis and diabetes is also found to be highly prevalent disease at older age. It can also be inferred from the chi square test there is a significant difference among male and female in respect to arthritis problem (p-value<0.05).

From table 3, shows mean and standard deviation of quality of life under different domains. An overwhelming majority (61.45%) of elderly had an average quality of life, where as 24.10% and 14.45% elderly had a poor and good quality of life respectively (Table 4).

Table-1: Percentage distribution of elder person age group 55 year and above by Demographic and Socio-economic background characteristics in Varanasi (N = 166)

Variables	N	%	
Gender	Female	45	27.11
	Male	121	72.89
Age Group (Years)	55-59	38	22.89
	60-69	94	56.63
	70+	34	20.48
Caste	SC/ST	19	11.45
	OBC	44	26.51
	Other	103	62.05
Migration	No	128	77.11
	Yes	38	22.89
Family Member	0-5	95	57.23
	More than 5	71	42.77
Marital Status	Currently Married	132	79.52
	Other	34	20.48
Education	Illiterate	8	4.82
	Primary/Middle	38	22.89
	Metric/Intermediate	62	37.35
	Higher Education	58	34.94
Occupation	Not working	89	53.61
	Unskilled/skilled	25	15.06
	Self employed	27	16.27
	Job	25	15.06
Earner	Self	74	44.58
	Partially	27	16.27
	Other	65	39.16

Table-2: Distribution of co-morbid conditions

Co-Morbid Conditions	Male		Female		χ ²	df	p- value
	N	%	N	%			
Eye sight weakness	49	40.50	29	64.44	6.621	1	0.010**
Hearing Problem	17	14.05	8	17.78	0.1245	1	0.724
Arthritis	35	28.93	27	60.00	12.24	1	0.001**
Diabetes	33	27.27	14	31.11	0.086	1	0.768
Cardiac disease	15	12.40	8	17.78	0.408	1	0.522
Anxieties	9	7.44	5	11.11	0.196	1	0.657
Others	12	9.92	2	4.44	4.12	1	0.042*

Table-3: Domain-wise mean QOL scores and Std. Dev.

QOL domain	Min.	Max.	Mean	Std. Dev.
Physical Health	0	20	10.60	5.48
Interpersonal Relation	0	40	32.47	10.01
Economic status	0	10	6.14	4.25
Public Facility	0	10	5.36	4.03
Environment Facility	0	10	4.97	3.09
Government Policy	0	10	2.56	4.04

Table-4: Standard distribution of Quality Of Life by the score of QOL

Total QOL score	N	Percent	QOL
0-50	40	24.10	Poor
51-75	102	61.45	Average
76-100	24	14.45	Good

Table-5: Inter-correlation matrix of some variables of the elder population (N=166)

	I	II	III	IV	V
I	1				
II	-0.068 (0.382)	1			
III	-0.154 (0.047*)	0.308 (0.001**)	1		
IV	0.019 (0.800)	0.281 (0.002**)	0.150 (0.052)	1	
V	0.271 (0.004**)	-0.134 (0.084)	-0.061 (0.430)	-0.177 (0.022*)	1

I: QOL; II: Age group; III: Residential duration; IV: Family member; V: Education; ** p < 0.001 level; * p < 0.05 level (2-tailed test)

Table 5 depicts the inter-correlation matrix of some variables of quality of life of the elderly. We can see from this table that there is a negative correlation exist between

Table-6: ANOVA Comparison of demographic and socio-economic variables and mean scores for quality of life

Variables	N	Mean ± SD	Source of Variation	df	Mean Square	F-value	Significance (P- Value)
Gender	Female	45	59.44 ± 16.99	Between	1	448.09	1.83 0.177
	Male	121	63.14 ± 15.09	Within	164	244.315	
Age Group (Years)	55-59	38	65 ± 12.08				0.86 0.426
	60-69	94	61.06 ± 17.67	Between	2	210.73	
	70+	34	61.91 ± 13.08	Within	163	245.977	
Marital Status	Currently Married	232	62.91 ± 15.29	Between	1	390.20	1.58 0.028*
	Other	34	59.11 ± 16.94	Within	164	244.66	
Caste	SC/ST	19	52.63 ± 15.93				4.2 0.016*
	OBC	44	62.5 ± 13.53	Between	2	993.234	
	Other	103	63.73 ± 15.99	Within	163	236.376	
Earner	Self	74	63.44 ± 13.64				1.79 0.170
	Partially	27	65.28 ± 16.43	Between	2	870.07	
	Other	65	59.38 ± 17.24	Within	163	39645.74	
Occupation	Not working	89	62.86 ± 15.62				3.85 0.011*
	Unskilled/skilled	25	54.20 ± 17.05	Between	3	898.25	
	Self employed	27	61.11 ± 15.83	Within	162	233.46	
	Job	25	68.60 ± 10.85				
Education	Illiterate	8	59.37 ± 14.74				5.16 0.002**
	Primary/Middle	38	55.39 ± 16.70	Between	3	1177.78	
	Metric/Intermediate	62	61.53 ± 15.77	Within	162	228.286	
	Higher education	58	67.58 ± 13.22				

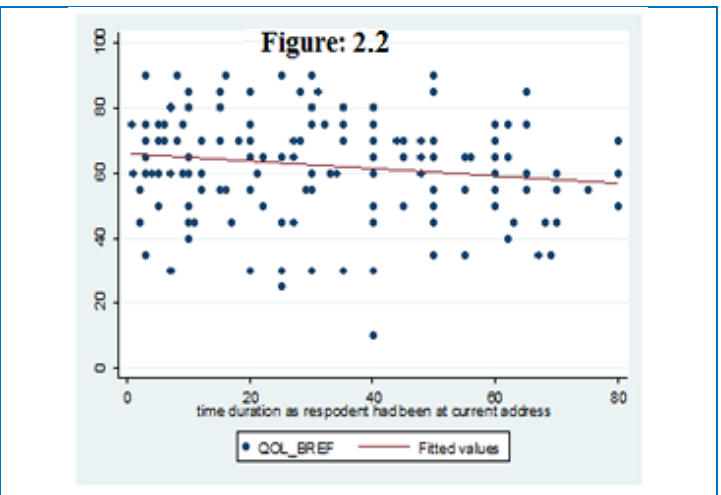
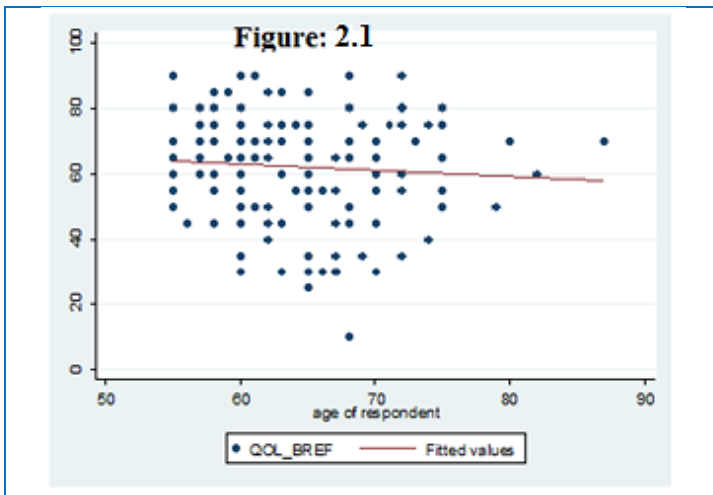


Figure-2: 1. Trend line for QOL-Score with age of respondents; 2. Trend line for QOL-Score with the living duration at current address

age group and quality of life, also education level and quality of life have a positive association, while education level and number of family members having a negative correlations.

The table 6 shows the distribution of subjects according to mean quality of life scores. The mean quality of life score was 63.14 ± 15.09 in male as compared to 59.44 ± 16.99 in female. Elderly belongs to other category had a higher mean quality of life score 63.73 ± 15.99 as compared to SC/ST and OBC categories, and this differences also found to be statistical significant as (p value< 0.05). The difference among groups also found to be significant (F= 3.85, p value= 0.011) in respect to occupations, the mean score of quality of life is highest for those who were doing jobs (68.60 ± 10.85) as compared to other occupations viz, self-employed, skilled worker and not working elderly. Regarding educational status, the mean quality of life score was 67.58 ± 13.22 in higher educated elderly, while 61.53

± 15.77 in intermediate/metric passed and 59.37±14.74 in illiterate elderly persons. This difference was also found to be statistical significant (p values< 0.05).

From the figure 2, we can observe that as the age of elderly people are increasing the mean score of QOL is slightly decreasing (figure 2.1), while the living duration at current address also behave in the same way to QOL, i.e. their quality of life going downward because of the stationary in the same place of living.

Discussion

In this paper we have made an attempt to study the quality of life of elderly people of Varanasi city. Our finding reveals that the majority (61.45%) of elderly had an average quality of life, whereas only 14.45% elderly had a better quality of life and remaining had a poor quality of life, further males had a better quality of life than their female

counterpart. The persons who were educated and currently married belongs to other caste category had a better quality of life than those who were illiterate, widow and belongs to SC/ST category. This finding is corroborated to the earlier findings of.^[4,10] Also similar results were observed by A.Barua et.al 2005, in their study on quality of life of geriatric populations, in which they stated that currently married had a better life than those who were single (unmarried/widowed). Another important findings of our study is that the elderly people who had currently having their jobs had a better quality of life than those who were not working, unskilled or self-employed. Which conjure up with the earlier findings of^[11], that occupations had a positive association with quality of life.

It was observed in our study that the eye sight weakness is the most prominent problem among the elderly, nearly 46.98% visually impaired. 37.35%, 28.31% and 15.06% had arthritis, diabetes and hearing problems respectively. Similar morbidity conditions of elderly were revealed in the earlier studies.^[12,13]

Also a previous study of Tamil Nadu reported that decreased visual acuity due to cataract and refractive errors were observed in 57% of the elderly, and hypertension 14%, diabetes 8.1%.^[14] Another study from rural area of Rohtak district of Haryana, revealed that the leading symptoms among the male elderly were visual impairment 65%.^[15]

There are some limitations in our study, firstly we have adopted a convenient sampling procedure to collect data, which can be avoided by considering scientific techniques like (SRS, Stratified or Cluster) of data collections. Secondly we have analyzed only 166 respondents' information of four colonies of Varanasi, so the strict generalization of our result needs a large scale survey for further conformity.

Conclusion

The implication of our findings might be prudent on the part of government agencies and police maker to carry out special surveys to identify the vulnerable aged people, particularly aged females/widows. Also there is an urgent need of social protection in form of assuring old age pension and compulsory health insurance. It is our duty

and obligation to take care of our elderly.

References

1. UN Report on Current Status of the Social Situation, Well-Being, Participation in Development and Rights of Older Persons Worldwide, Department of Economic and Social Affairs, United Nations. New York. 2011. Available from: URL: <http://www.un.org/esa/socdev/ageing/documents/publications/current-status-older-persons.pdf>
2. United Nations Population Fund (UNFPA) and Help Age International. Ageing in the Twenty-First Century: A Celebration and a Challenge, New York. 2012. Available from: URL: <https://www.unfpa.org/public/home/publications/pid/11584>
3. Arnold SB. Measurement of quality of life in the frail elderly. In: Birren JE, Lubben JE, Rowe CJ, Deutchman DE (eds). The Concept and Measurement of Quality of Life in the Frail Elderly. San Diego, California: Academic Press, 1991. p. 50-73.
4. Qadri SS, Ahluwalia S, Ganai AM, Bali pS, 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;2:514-22.
5. Barua A, Maangesh R, Harsha KHN, Mathew S. A cross-sectional study on quality of life in geriatric population. *Indian J Comm Med* 2007;32:146-7.
6. Shraddha K, Prashantha B, Prakash B. Study on morbidity pattern among elderly in urban population of Mysore, Karnataka, India. *International Journal of Medicine and Biomedical Research* 2012; Vol 1, Iss 3:215-23.
7. Swami HM, Bhatia V, Dutt R, Bhatia SPS. A Community Based Study of the Morbidity Profile among the Elderly in Chandigarh, India. *Bahrain Medical Bulletin* 2002;24.
8. Khokhar A, Mehra M. Life style and morbidity profile of geriatric population in an urban community of Delhi. *Indian J Med Sci* 2001;55:609-15.
9. World Health Organization. WHOQOL-BREF: Introduction, Administration, Scoring and Generic Version of the Assessment. Programme on mental health. Geneva, WHO. 1996. Available from: URL: http://www.who.int/mental_health/media/en/76.Pdf
10. Division Of Mental Health And Prevention Of Substance Abuse, WHO. Programme on Mental Health: WHOQOL- Measuring Quality of Life. WHO. Available from: URL: http://www.who.int/mental_health/media/68.pdf
11. Joshi K. Assessment of health related quality of life (HRQOL) among elderly more than 60 years of age. [Dissertation]. Chandigarh: Baba Farid University of Health Sciences, Faridkot; 2000.
12. Bharati DR, Pal R, Rekha R, Yamuna TR, Kar S, Radjou AN. Ageing in Puducherry, South India: An overview of morbidity profile. *J Pharm Bioallied Sci* 2011;3:537-52.
13. Manandhar MC, Anklesaria PS, Ismail SJ. Weight, skinfolds and circumference characteristics of poor elderly people in Mumbai, India. *Asia Pac J Clin Nutr* 1997;6:191-9.
14. Purty AJ, Bazroy J, Kar M, Vasudevan K, Veliath A, Panda P. Morbidity pattern among the elderly population in the rural area of Tamil Nadu, India. *Turk J Med Sci* 2006;36:45-50.
15. Sunder L, Chadha SL, Bhatia PC. A study on senior citizens in rural areas. *Health Millions* 1999;25:18-20.

Cite this article as: Swain PK, Raj D, Pedgaonkar SP. A study on quality of life satisfaction & physical health of elderly people in Varanasi: An urban area of Uttar Pradesh, India. *Int J Med Sci Public Health* 2014;3:616-620.

Source of Support: Nil

Conflict of interest: None declared