Quality of life among elderly population residing in urban field practice area of a tertiary care institute of Ahmedabad city, Gujarat

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ABSTRACT

Introduction: Overall improvement in the living standards of country’s population is leading to longer life expectancy. To emphasize the medical and psychological difficulties faced by geriatric people is essential to know status of their quality of life (QOL).

Methodology: A community-based cross-sectional study was carried out at urban field practice area of one of the teaching institutes of Ahmedabad, Gujarat. Considering the prevalence of about 7.5% of 60 years and above people sample size of 250 was calculated. A predesigned questionnaire related to the QOL of elderly people devised by the World Health Organization-QOL was used.

Results: Mean age of the study population was 65.8 years with standard deviation of 5 years. Almost two-thirds of geriatrics were currently married and having spouse alive. List of common morbidities observed among study population was joint pain (42.8%), cataract (32.8%), hypertension (22.4%), diabetes mellitus (17.2%), and dental problems (12.4%). Scoring of QOL profile revealed that none of the geriatric had poor QOL, whereas 56% fall into category “good” and 50.8% had “excellent” QOL. QOL as per four different domains was significantly better among males as compared to females. Physical, environmental, and psychological domains were better in those who were educated and married individuals living with their spouse.

Conclusion: Overall QOL was good to excellent. Social characteristics, such as education, marital status, and gender, all play role for the perceived QOL among the respondents.

Keywords: Elderly, morbidity, quality of life, urban

Introduction

The World Health Organization (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 in relation to his or her goals, expectations, standards, and concerns.” It is a broad concept covering the individual’s physical health, mental state, level of independence, social relationships, spiritual beliefs, and the environment. By 2020, for the first time in history, the number of people aged 60 years and older will outnumber children younger than 5 years. By 2050, the world’s population aged 60 years and older is expected to total 2 billion, up from 841 million today.

The rapidly growing numbers of older peoples’ population in both developed and developing countries mean that they all would be at risk of a challenge to their QOL. The challenge in the 21st century is to delay the onset of disability and ensure optimal QOL for older people. The WHO has recently warned the member countries that as people across the world live longer, soaring levels of chronic illness, and diminished well-being are poised to become a major global public health challenge.

Aging is generally defined as a process of deterioration in the functional capacity of an individual that results from structural

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changes, with advancement of age. Longevity must come along with the quality, then and then feeling of contentment could be achieved. To emphasize the medical and psychological difficulties faced by geriatric people is the need of current time. Research in this field would be helpful to know the exact status of the quality of lives of the elderly people. Result of the study could provide a baseline initiative for more research and intervention strategies. With this in the prospect, a study would be very much beneficial among the elderly population to know their quality of lives.

**Aims and objectives**

- To study the QOL and morbidity patterns of people aging 60 or above in the field practice areas of urban health training centers of a medical college of Ahmedabad city
- To correlate the QOL with various sociodemographic factors.

**Methodology**

The study was conducted in urban elderly population residing in field practice areas of the urban health training center attached with the Department of Community Medicine of a Medical College of Ahmedabad city, Gujarat. The total population served is about 4900 people in the semiurban area. A community-based cross-sectional design was adopted for studying the health problems of elderly and their health-related QOL. The inclusion criterion was a person of age 60 years and above. The exclusion criteria were very severely ill persons not able to answer to the questions and a person who does not give consent for the participation. A list of 60 years and above was obtained from the center data beforehand.

Taking a prevalence of about 7.5% of 60 years and above people for India, it can be estimated that about 350 people could be found from urban areas having a population of 4800. Considering the limited locality of the field practice area and the nonresponse rate, a total of 250 participants were eligible for the study. A predesigned questionnaire related to the QOL of elderly people devised by the WHO (WHOQOL) was used for the survey. The questionnaire was translated in local language and then was again back translated to maintain the content validity of the questions. It took into consideration six domains of QOL, i.e., physical, psychological, environmental, social relationship, level of independence, and spirituality. The study protocol was approved by the institutional ethical committee. A pretest was carried out taking about twenty samples to know the feasibility of the questionnaire. The study protocol was approved by the institutional ethical committee. The mean score of items within each domain was used to calculate the domain score. If more than 20% of the data were missing from an assessment, then the assessment was discarded. The data were collected by house-to-house visit by trained accredited social health activist workers, multipurpose health workers, and medical social workers (MSWs) of the concerned areas. Informed consent was taken from participants before initiation of the study. Taking into consideration of the variable literacy status, a structured interview was carried out to fill up the questionnaire for each of the respondent. Information on treatment-seeking behavior and the existing morbidity was also noted. Scoring WHOQOL was done with the help of SPSS software (SPSS Inc. Released 2007. Version 16.0. Chicago). Appropriate statistical methodologies such as percentages, Student’s t-test, and Chi-square test were used for analyzing data. Pro forma to study the health-related QOL: the WHOQOL-BREF was used to assess the QOL. It took into consideration four domains of QOL, i.e., physical, psychological, environmental, and social relationship. It had 26 questions and the mean score of items within each domain was used to calculate the domain score. A transformed score between 0 and 100 was developed for each domain for final analysis. Method for manual calculation of individual scores is as follows:

Physical domain – \((x = 6 - 3) + (x = 6 - 4) + (x = 10 + 15 + 16 + Q17 + Q18) \times 4\)

Psychological domain – \((x = 5 + 6 + Q7 + Q11 + Q19 + (x = 6 - 26) \times 4\)

Social relationship domain – \((x = 20 + Q21 + Q22) \times 4\)

Environmental domain – \((x = 8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25) \times 4\)

**Results**

Total 250 geriatric age group people (age 60 years or more) were included in the study. Mean age of the study population was 65.8 years with standard deviation of 5 years. Number of people belonged to age group 60–64 were 114 (45.6%) while 103 (41.2%) were between 65 and 70 years age. Only 8% were above 75 years. Female preponderance was found in our study with 57.6% as compared to males (\(n = 106, 42.4\%\)). People who were married and having spouse alive, constitute 64.4% whereas 28% were either widow or widower. Educational status of study population showed that 35.6% were illiterate while half of the geriatrics (\(n = 131, 52.4\%\)) was primary educated. Only nine (3.6%) were graduates or above graduate. Twenty percent (\(n = 50, 20\%\)) were living retired life, whereas \(n = 70 (28\%\) and \(n = 45 (17.8\%\) were unskilled and skilled workers [Table 1].

In the present study, geriatrics population living in a joint family constitutes 56% while 27.2% had nuclear family and 15.6% of them were living alone. Quite good proportions (\(n = 208, 83.2\%\)) of geriatrics were supported by their family as far as mode of income was concerned, \(n = 16 (6.4\%\) were destitute [Table 2].

Preference for health facility was asked to study group. Almost three-fourths (\(n = 190, 76\%\)) of them preferred government health facility. Twenty-four (9.2%) were having preference of private health-care facility during illness. The reasons behind nonuse of government facility were nonavailability of doctors as per 66.6% of population. Same proportion (\(n = 4, 16.7\%\)) of reasons was stated by both noncooperation of staff and remote placement of government health institute [Table 3].
Common ailments found among study population were joint pain (42.8%), cataract (32.8%), hypertension (22.4%), diabetes mellitus (17.2%), and teeth problems (12.4%) [Table 4].

Scoring of QOL profile was carried out using WHOQOL-BREF criteria. None of the geriatric fall in fourth category, i.e., poor QOL, while 56% (n = 140) belonged to good category and 50.8% (n = 102) were having excellent QOL. Mean score for four different domains, namely, physical, psychological, social, and environmental was depicted for QOL. Mean score of social domain was maximum (69.4 ± 9.7) as compared to other three domains. Lowest mean score was found in environmental domain (57.6 ± 10.0) [Table 5].

Impact of gender, educational status, and marital status on different domains of QOL was studied using independent t-test. Educational and marital status significantly affects QOL as far as social and environmental domains were concerned. QOL as per four different domains was significantly better among males as compared to females [Table 6].

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**Table 1: Sociodemographic profile of study population (n=250)**

| Sociodemographic profile | Frequency (%) |
|--------------------------|---------------|
| Age (years) | |
| 60-64 | 114 (45.6) |
| 65-70 | 103 (41.2) |
| 70-74 | 13 (5.2) |
| ≥75 | 20 (8) |
| Sex | |
| Male | 106 (42.4) |
| Female | 144 (57.6) |
| Marital status | |
| Married | 161 (64.4) |
| Unmarried | 19 (7.6) |
| Widow/widower | 70 (28) |
| Education | |
| Illiterate | 89 (35.6) |
| Primary | 131 (52.4) |
| Secondary | 21 (8.4) |
| Graduate and above | 9 (3.6) |
| Occupation | |
| Housemaker | 85 (34) |
| Retired | 50 (20) |
| Unskilled | 70 (28) |
| Skilled | 45 (17.8) |
| Total | 250 (100) |

**Table 2: Family type and mode of wages among the respondents (n=250)**

| Family type and mode of wages | Frequency (%) |
|------------------------------|---------------|
| Type of family | |
| Joint | 140 (56) |
| Nuclear | 68 (27.2) |
| Three generation | 3 (1.2) |
| Living alone | 39 (15.6) |
| Mode of wages | |
| Supported by family | 208 (83.2) |
| Pension | 26 (10.4) |
| Destitute | 16 (6.4) |
| Total | 250 (100) |

**Table 3: Distribution of preference of health-care facility by the respondents (n=250)**

| Preferred health-care facility (n=250) | Frequency (%) |
|---------------------------------------|---------------|
| Government | 190 (76) |
| Both government and private | 36 (14.8) |
| Private | 24 (9.2) |
| Reason for nonuse of government facility (n=24) | |
| No doctors available | 16 (66.6) |
| Uncooperative staff | 4 (16.7) |
| Far from home | 4 (16.7) |

**Table 4: List of morbidities present among as reported by the respondents (n=250)**

| Morbidities | Frequency (%) |
|-------------|---------------|
| Joint pain | 107 (42.8) |
| Cataract | 82 (32.8) |
| Hypertension | 56 (22.4) |
| Acidity | 44 (17.6) |
| Diabetes | 43 (17.2) |
| Teeth problem | 31 (12.4) |
| Heart disease | 18 (7.2) |
| Spine problem | 12 (4.8) |
| Insomnia | 12 (4.8) |
| Deafness | 10 (4) |
| Anemia | 9 (3.6) |
| Skin diseases | 4 (1.6) |
| Depression | 4 (1.6) |
| Mood swing | 3 (1.2) |
| Prostate problem | 3 (1.2) |

A cross-sectional study was carried out among geriatric populations residing at the field practice area of urban health training center. Total 250 geriatric age group people were interviewed. Mean age of the study population was 65.8 years with standard deviation of 5 years. Female population (57.6%) outnumbered males (42.4%) in the present study. Similar findings were seen in the studies carried out by Sowmiya and Nagarani and Jacob et al where in female elderly were more as compared to male. Almost two-thirds of geriatrics were currently married and having spouse alive. Educational status of study population showed that 35.6% were illiterate. Geriatrics population living in a joint family constitutes 56% (n = 140) while 15.6% (n = 39) of study population were living alone. Fair proportions (83.2%, n = 208) of geriatrics were supported by their family as far as mode of income was concerned.

Almost three-fourths (76%, n = 190) of geriatrics preferred government health facility for treatment of various illnesses.
Table 5: Grading and mean scores of QOL as per WHO-QOL-BREF scoring (n=250)

| Grades          | Overall grading: QOL |
|-----------------|----------------------|
| Excellent (110-89) | 102 (50.8)            |
| Good (88-67)    | 140 (56.0)            |
| Fair (45-66)    | 8 (3.2)               |
| Poor (<45)      | 0                    |
| Total           | 250 (100)             |

Table 6: Association of quality of life with various sociodemographic factors among the respondents (n=250)

| QOL          | Physical domain | Psychological domain | Social domain | Environmental domain |
|--------------|-----------------|----------------------|---------------|----------------------|
| Gender       |                 |                      |               |                      |
| Male         | 68.8±17.8       | 68.2±8.8             | 71.9±8.4      | 60.3±9.4             |
| Female       | 62±15.7         | 64.7±14.1            | 67.4±10.1     | 55.4±9.9             |
| P            | 0.0016          | 0.0252               | 0.0002        | 0.0001               |
| Educational status |           |                      |               |                      |
| Illiterate   | 66.5±18.8       | 64.7±15.3            | 66.2±12.5     | 55.6±11.3            |
| Literate*    | 67.3±15.3       | 67.4±10.1            | 71.7±7.6      | 58.5±9               |
| P            | 0.7160          | 0.2522               | 0.0001        | 0.0271               |
| Marital status |              |                      |               |                      |
| Married      | 66.6±17.8       | 66.8±12.5            | 70.7±8.9      | 58.8±10.1            |
| Single**     | 61.7±14.7       | 65.1±11.7            | 66.8±10.5     | 55.1±9.2             |
| P            | 0.0278          | 0.2659               | 0.0021        | 0.0046               |

Those who were using private health care mentioned various reasons for nonuse of government facility such as nonavailability of doctors (66.6%), noncooperation of staff (16.7%), and remote placement of government health institute (16.7%). Similar findings were found in the study carried out by Qadri et al. who revealed that 72% of household generally do not seek health care from government facility. In their study, reasons for nonutilization were poor quality of care (55%), lack of a nearby facility (42%), and long waiting times (25%). Gupta et al. stated that more than half of the respondents found lack of sympathetic care from government doctors and that was the reason for nonuse of government facilities.

In the present study, list of common morbidities observed among study population was joint pain (42.8%), cataract (32.8%), hypertension (22.4%), diabetes mellitus (17.2%), and dental problems (12.4%). Similar finding was seen in the study by Jacob et al. who stated that most common morbidity was joint pain/joint stiffness (43.4%), cataract (45.3%), and dental problems (45.3%). Qadri et al. observed in their study that anemia was the most common morbidity, with 2/3 of population (64.5%) suffering from it, followed by dental problems (62.2%), joint pains (51.4%), cataract (46.8%), and hypertension (44.5%), respectively. Joshi et al. found that most prevalent morbidity among elderly people was anemia followed by dental problems, cataract, hypertension, and osteoarthritis. Kishore et al. carried out study in Dehradun, mentioned the most prevalent morbidity was hypertension (41.4%).

Scoring of QOL profile revealed that in the present study, none of the geriatric had poor QOL, whereas 56% fall into category “good” and 50.8% were having “excellent” QOL. Similar findings were found in the research by Qadri et al. who revealed that majority (68.2%) of elderly had good QOL whereas only 0.9% had poor. Mean score for four different domains, namely, physical, psychological, social, and environmental were illustrated for QOL. Mean score of social domain was maximum (69.4 ± 9.7) as compared to other three domains. Lowest mean score was found for environmental domain (57.6 ± 10.0). Similar presentation was seen in study by Sowmiya and Nagarani in Tamil Nadu, where the highest score was for the social relationship domain.

Mudey et al. in their study concluded that the QOL of rural elderly population was better in physical and psychological domain, whereas QOL in urban slum elderly was better in social relationship and environmental domain.

In the present study, QOL as per four different domains was significantly better among males as compared to females. Physical, environmental, and psychological domains were better in those who were educated and married individuals living with their spouse. Qadri et al. also mentioned that QOL was better among males for physical, psychological, social, and environmental domains. It was more among the participants who were graduated and currently married. Bhatia et al. did a study in ten villages of district Ludhiana. They reported that QOL was significantly associated with education. In the present study as well, the physical, social, and environmental domain scores are significantly better among literates than illiterates [Table 6]. Mudey et al. mentioned that the scores for psychological domain among married elderly population were higher than single or widowed elder people and were found to be statistically significant. In the present study also, the physical, social, and environmental scores are significantly better among married than among singles. Barua et al. depicted in their study on geriatric population that currently married had better QOL than those divorced, widowed, or separated.

Conclusion

The physical, psychological, environmental, and social domains were compared for various demographic and social characteristics. Geriatric population surveyed under this study had suffered from various morbidities. They found difficult to reach government facility due to various reasons, one of it was distance they need to travel. In such instances, specifically for minor illnesses, government health services can be provided by...
mobile medical van at their doorstep at regular interval. Overall QOL was good to excellent, but environmental domain was not up to the mark which can be improved by collective efforts from family as well as by network of geriatric support groups. Social characteristics such as education, marital status, and gender all play role for the perceived QOL among the respondents. Positive outcome in the QOL could be achieved if level of education is improved in the society.

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Conflicts of interest
There are no conflicts of interest.

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