SHORT REPORT

Health related quality of life of home dwelling vs. nursing facility dwelling elderly — A cross-sectional study from Karachi, Pakistan

Amber Tahir Siddiqui,[1] Mohammad Hasan,[2] Kiran Abbas,[3] Syed Maaz Tariq,[4] Syed Ali Haider[5]

Abstract

With the elderly population increasing in numbers, their demand of adequate medical and psychological care is also rising up. The key goal of promoting physical and mental health in elderly is maintenance of adequate health-related quality of life (QOL). A cross-sectional, descriptive study was conducted from December 2016 to February 2017 among 100 elderly living in nursing facilities and 100 in homes. Older people's quality of Life Questionnaire (OPQOL-35) was utilized to assess their QOL. In the nursing facility dwelling, 17% elderly reported good QOL with highest standardized score in "home and neighbourhood" and lowest in "health" domain. Of the home dwelling elderly, 74% reported good QOL with highest standardized score in "psychological and emotional wellbeing" and lowest in "health" domain.

Keywords: Geriatrics, Nursing homes, Pakistan, Aged.

Introduction

World Health Organization (WHO) reports 4% of Pakistani population to be above the age of 65 years in 2014;[1] however, local data suggests this proportion was 6.5% in 2012 and expected to rise to almost 16% of the total population by 2050.[2] With the number of elderly individuals growing, their demand of adequate medical and psychological care, on the Health Care Providers (HCPs), is also building up. The key goal for promotion of physical and mental health in elderly is maintenance of adequate health-related quality of life (QOL), and not making attempts at reducing morbidity and mortality.[3]

WHO defines QOL as "individuals' perceptions 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."[4] The essential indicators of QOL are physical, psychological, social and environmental domains.

According to WHO, in 2014, 54% of the global population has urbanized. The major urbanization trend has been observed in less developed areas of the world.[5] Large joint families in Pakistan have been converted to smaller nuclear families. The number of elderly living either alone or with their elderly spouses has increased. Many elderly are compelled to live in nursing homes.[6] However, many elderly still enjoy a peaceful home life with their loved ones around them. These two living setups have diverse environments and hence, affect the physical and psychological health of the elderly differently.

Our study aims to compare the QOL of nursing facility dwelling and home-dwelling elderly and highlight the factors that influence their QOL.

Methods and Results

This cross-sectional, descriptive survey was conducted from Dec 2016 to Feb 2017 after ethical approval. Non-probability convenient sampling technique was used. Participants were explained the aims of the study and were interviewed, following written informed consent. All questionnaires were filled by the interviewers in accordance with the responses uttered by the participants.

All participants included in the study were of age 65 years or above. Five nursing facilities, one in each of the five zones of Karachi, were addressed. When this study was conducted, a total of 168 elderly were living in these facilities. All elderly were invited to participate in the study. Thirty four individuals were found to have a major physically debilitating illness affecting QOL such as paralysis, cancer, amputation, depression, hence were excluded. Therefore, with the anticipated frequency of 50% and confidence level of 95%, the sample size for nursing facilities was calculated to be 100. For home dwelling group, 100 interviews were completed, one for each one in the nursing facility group.

To assess the QOL, "Older people's quality of Life Questionnaire (OPQOL-35)"[7] was utilized. It was translated into local language — Urdu — by an authentic translator and the translated version was approved by the Review Board. As per the review committee's instructions, an unpublished pilot study, including 15 participants from nursing facilities and 15 living in their homes, was

[1]Jinnah Postgraduate Medical Centre, [2-5]Jinnah Sindh Medical University, Karachi.

Correspondence: Syed Maaz Tariq. Email: maaztariqsyed@gmail.com

conducted to validate the translated version. After necessary revisions, as per the translator's advice, the reliability score of the questionnaire was 0.51

OPQOL-35 is based on 5-point Likert scoring system. It has 35 statements. A higher score indicated better QOL and lower score indicates a worse QOL. It covers eight domains including "life overall" (4-items), "health" (4-items), "social relationships" (5-items), "independence, control over life and freedom" (4-items), "home and neighborhood" (4-items), "psychological and emotional wellbeing" (4-items), "financial circumstances" (4-items) and "leisure, activities and religion" (6-items). The items were coded as "1" for strongly agree, "2" for agree, "3" for neither agree nor disagree, "4" for disagree and "5" for strongly disagree. Later while scoring, reversed coding was adopted for positively worded items. The validity of the instrument has already been established in ethnically diverse old people.[8]

The independent variables consisted of socio-demographic characteristics — age, gender, and involvement in physical/vocational activities — and self-reported chronic medical illnesses. For nursing facility residents, the variables included were: whether they moved to the old home willingly, whether they are in contact with their families and whether not or their spouse lives with them in the old home facility. For home dwellers, the variables included were: whether they are financially independent or not, their attachment with the family and the type of family system (nuclear vs. joint) they live in.

Data was analyzed using Statistical Package for Social Sciences version 16. 200 responses (100 from nursing facility residents and 100 from home dwellers) were included. Socio-demographic data was characterized using descriptive statistics. The findings were described using frequencies and percentages. Univariate logistic regression was utilized to assess if the study variables were statistically significant (p-value < 0.05) for QOL. The mean of QOL was taken as the "cut-off."[9] It was then divided into "good QOL" (above mean score) and "bad QOL" (below mean score).

Table-1: Sociodemographic Characteristics and their distribution.

Sociodemographic Variables	Home Dwelling n (%)	Nursing Facility Dwelling n (%)
Gender:		
Male	58 (58%)	68 (68%)
Female	42 (42%)	32 (32%)
Age:		
Mean ± SD: 71.77±5.02 years		
65-70 years	50 (50%)	49 (49%)
71-75 years	33 (33%)	32 (32%)
76-80 years	11 (11%)	9 (9%)
80+ years	6 (6%)	10 (10%)
Job Status:		
Not working / Retired	37 (37%)	72 (72%)
Working	63 (63%)	28 (28%)

The study included a total of 200 participants of age 65 and above. The sociodemographic distribution of both these groups is show in Table-1.

Physical or psychological illnesses were reported in 81(40.5%) participants; most of these individuals suffered from neurological (13.5%), followed by musculoskeletal (11%) and cardiovascular (6.5%) illnesses.

Physical or vocational activities were regularly done by 79(39.5%) of the participants and 121(60.5%) were inactive. The most common physical activity was a brisk walk (16.5%) followed by moderate exercise (9.5%) and yoga (3.5%). The most common vocational activity was reading (2%) followed by gardening (0.5%) and playing board games (0.5%).

As mentioned previously, QOL below mean (<116) was taken as "bad QOL" and above mean (>116) was taken as

Table-2: Distribution of mean and standardized OPQOL scores.

QoL Overall and Its Sub-Scales	Living In Old Homes		Living With Family	
	Mean ± SD	Standardized Score	Mean ± SD	Standardized Score
Total QoL	106.36 ± 12.4	60.57	125.24 ± 11.4	71.56
Life Overall	12.29 ± 2.96	61.45	15.12 ± 2.52	75.60
Health	10.16 ± 3.41	50.80	12.30 ± 3.23	61.50
Social Relationships	13.43 ± 2.15	53.72	17.29 ± 2.10	69.16
Independence	11.30 ± 2.73	56.50	13.87 ± 2.72	69.35
Home And Neighbourhood	13.72 ± 1.55	68.60	14.18 ± 1.33	70.90
Psychological And Emotional Wellbeing	12.68 ± 3.13	63.40	15.42 ± 1.99	77.10
Financial Circumstances	10.32 ± 2.00	51.60	12.38 ± 2.24	61.90
Leisure, Religion	19.52 ± 2.13	65.06	20.67 ± 2.40	68.90

"good QOL." Hence, the percentage of good QOL was 17% (n=17) for old people living old homes and 74% (n=74) of old people living with their families reported good QOL.

The mean OPQOL score of the sample as whole was 115.8 ± 15.2 out of a possible score of 175, ranging in total score from 76 minimum to 151 maximum. The mean OPQOL score of the respondents living in old homes was 106.36 (SD ± 12.4). The mean OPQOL score of the respondents living with their families was 125.24 ± 11.4. In relation to specific sub-scale, participants living with family demonstrated highest standardized score in the domain of "psychological and emotional wellbeing" and lowest in "health." Participants living in nursing homes demonstrated highest standardized score in the domain of "home and neighbourhood" and lowest score in "health" (Table-2).

In order to ascertain the factors marking an influence on the QOL of these two groups, it was seen that financial dependence on the family, lack of physical or vocational activities and presence of comorbidities significantly reduced the QOL in the study population living with their families. Good QOL was reported by 25% of our nursing home residents, being visited by family, whereas only 14%, not being visited by family, reported good QOL. Good QOL was acknowledged by 73% of the participants living in joint families and 76% of participants living in nuclear families. However, the results were not statistically significant. Lack of physical or vocational activities and presence of comorbidities significantly reduced the QOL in the nursing facility residents.

Discussion

A small proportion of the nursing facility dwelling population of our study exhibited a good QOL while almost three-fourth of our study population living in their homes exhibited a good QOL. We also report all QOL subscales to be lower in nursing facility dwelling participants. In our study, the statistically significant factors that contributed to a higher QOL in nursing facility residents were active participation in physical and vocational activities and absence of comorbidities. In home-dwelling group, along with these two factors, financial independence was also a statistically significant contributor to better QOL.

These findings are supported by Ozer M et al[10] as it stated life satisfaction was higher for elderly living with their families to the ones dwelling in facilities. They have attributed this finding to a generally warm family environment. Another study[11] reported elderly felt better being home and higher depression was found in nursing home residents.

However, when a study[12] in the rural settings of India utilized SF-36 questionnaire, better QOL was observed in nursing home residents. They attributed their findings to backward and scheduled caste population belonging to the lower socio-economic section living in the community, and forward castes mostly dwelling in nursing homes. In another study[13] conducted in India, psychological wellbeing in participants living in nursing homes was reported higher along with a higher overall QOL. However, their social relationships were reported to be higher in participants living with families, which is similar to our findings. They have attributed their findings to better living facilities, leisure activities and lack of family responsibilities burden or stress in nursing homes.

There are reports of moderate to low QOL in elderly living in nursing homes. It is highlighted how in a nursing home, elderly who were not visited by family had reduced QOL than the ones who were visited by their family.[14] Studies have also reported how nursing home placement has resulted in reduced QOL over time.[15]

In a Sri Lankan study among elderly community dwellers, financial status and chronic medical conditions significantly contributed to QOL. However, their standard score of overall QOL was lower than ours.[9] Another large scale study[16] reported physical activity to be significant only for home dwelling elderly, comorbidity to be significant among only nursing home dwelling elderly and depression to be significant in both groups.

Conclusion

Old people living in nursing facilities have an overall lower quality of life along with low QOL in all domains of OPQOL as compared to the home dwelling older people. The essence of promoting health is in its quality of life; mot merely the life span. Primary emphasis should be made on evaluating QOL, so that programmes and policies can be initiated to enhance the overall health status and QOL of the elderly individuals. It should be comprehended that the extended life span of elderly, in absence of adequate quality of life, can be an additive inconvenience not only to the person him/herself but also to the care giver and the health care provider.

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Conflict of Interest: None to declare.

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