Original Research Article

A cross sectional comparative study assessing the quality of life in elderly living in old age homes and community and association of various factors with QOL

Anitha Rayirala[1,*], Nageswar Rao Nallapaneni[2], Anand Bhogaraju[3], Gowri Devi Mandadi[4]

[1]Assistant Professor, [2]Associate Professor, [3]Professor, Institute of Mental Health, Osmania Medical College, Hyderabad, Telangana, [4]Consultant Psychiatrist, Dept. of Psychiatry, Asha Hospital, Hyderabad, Telangana

*Corresponding Author:
Email: anitharayirala@gmail.com

Abstract

Aims and Objectives: Comparison of quality of life (QOL)in elderly living in old age homes and community and association of various socio demographic factors, spouse factors, habits and hobbies.

Methodology: 49 subjects from old age homes and 48 subjects from community were administered Quality of life scale after taking informed consent. The factors associated with quality of life in both groups were analyzed statistically.

Results: High QOL is seen in elderly who are highly educated, who are retired, belonging to middle Socio Economic Strata (SES), and who don't have any habits, whose spouses are young old and retired. Among the various socio demographic factors, SES has got the highest association with QOL. High QOL is seen OAH inmates when compared to community dwelling elderly. However, the difference of mean QOL scores was not statistically significant.

Conclusion: There was no major difference in QOL between the2 groups. However, association of various socio demographic factors and other factors with QOL were statistically significant.

Keywords: Elderly, Old age homes(OAH), Community, Quality of life (QOL)

Introduction & Review of Literature

Ageing is a normal, physiological, biological and universal phenomenon that happens in all the living beings. It is commonly understood as the process of maturing or becoming older. The old age is defined as population aged 60 years and above. It is a stage of life, distinct from the rest, by physiological, psychological and social changes and is characterized by a general reduction in functional capacities as well as structural changes in the body.

Apart from medical problems, psychiatric symptoms are also among the most prevalent health problems of the elderly and are an important source of distress for patients and carers, being also associated with significant growth in the costs and demand for the provision of health care services[1]. Elderly people are highly prone to mental morbidities due to ageing of the brain, problems associated with physical health, cerebral pathology, socio-economic factors such as breakdown of the family support systems, and decrease in economic independence. The mental disorders that are frequently encountered include dementia and mood disorders. Other disorders include neurotic and personality disorders, drug and alcohol abuse, delirium, and psychosis[2].

Ageing, along with the functional decline in terms of physical and psychological disability, economic dependence, and social cut off, autonomy of young generation, compromises QOL. At global level, QOL among elderly is an important area of concern which reflects the health status and well-being of this vulnerable population.

The World Health Organization defines 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. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment"[3,4]. It is a broad concept that incorporates all aspects of life and covers four areas: physical, mental, social and spiritual well-being[5].

One of the characteristics commonly accepted of QOL is its dimensionality; in other words, QOL can be related with a set of conditions (ingredients, components, etc.) of a given individual or groups of individuals. From an expert point of view, Lawton (1991) proposed a Four Sector model in which psychological well-being, perceived quality of life, behavioural competence and objective environment were present in the QOL of older individuals[6]. Hughes (1990) enlarged those domains considering the following: personal characteristics of the individual (functional activities, physical and mental health, dependency, etc.), physical environmental factors (facilities and amenities, comfort, security, etc.), socio-environmental factors (levels of social and recreational activity, family and social network, etc.), socio-economic factors (income, socio-economic status, etc.), personal autonomy factors (ability to make choices, exercise control, etc.), personality factors (psychological well-being, morale, life satisfaction, happiness, etc.) and subjective satisfaction[7]. All these factors are found to be compromised in the elderly.

Again the importance of older person's perspectives in defining QOL may vary according to the health status, gender, ethnicity and socio demographic background.[8]

While chronic illnesses often drive the quality of life in older people, behavioral, psychological, social, environmental and economic resources can moderate their impact. Health promoting behaviors, social resources, including social activities and social support, are key influences on QOL particularly in impoverished environments such as low SES neighborhood's[9]. Positive self-perceptions of ageing are important influences on wellbeing[10]. Neighborhood characteristics, including social cohesion within a neighborhood and safety, are also associated with wellbeing in late life.[11] Economic resources are important in providing a living standard that allows the older person to live an independent and socially connected life and to access appropriate health care. For older residents in aged care settings, highly rated QOL domains often include physical comfort, functional competence, privacy, autonomy, dignity, meaningful activity, meaningful relationships and safety.[12]

A study of elderly living in the old age home and within family set up in Jammu found that the general feelings of the elderly women living in the families had better position than that of the elderly women of the institution. Better social relations were maintained by the family dwellers because they had regular interaction, expressions of feelings and support from the family. The existing condition of the elderly women living in the institution was that they felt lonelier, depressive and had a lower level of satisfaction with life[13].

A study done to assess QOL in old age homes, in Udipi, Karnataka, showed highest quality of life score (60.47±10.14) in environmental domain and least score (34.66±14.88) in social relationship domain which reflected the good environmental condition at old age homes but there is a need to address the issue of social negligence of elderly from family and society. The study concluded that organizational care and support is essential for health and wellbeing of elderly. To improve quality of life in elderly, emphasis should be given on the development of social relationship and self-belief restoration by counseling[14].

Among the various socio demographic factors, QOL was found to be better among married elderly people than single elderly people. QOL was better among elderly people without health related issue/s, without psychosocial issue/s and without mental health problem/s. Education, financial dependency, SES, feeling of loneliness, and health related issue/s were important to predict the QOL of the elderly people. Financial dependency was the most important predictor of QOL[10]. QOL was significantly low among those with no schooling, nuclear family, not receiving pension, not with partner, and impaired ADL groups.

From the review of literature it is evident that, QOL is an important concept in evaluating the well-being in old age, which can be compromised in various ways and various factors influence it. But there is paucity of studies conducted to assess QOL among elderly in India, more so in old age homes. Hence the present study is aimed at highlighting the QOL in OAHs and a focus on evaluating the influence of various factors on QOL.

Aims

To study the Quality of life in inmates of old age homes and elderly population in the community. To study the influence of various socio demographic factors, spouse characteristics, habits and hobbies influencing Quality of life of both groups.

Objectives

With the above aims in view, the study was done with the objectives to compare the Quality of life in two groups of subjects; viz inmates of old age homes and elderly population in the community using Quality of life scale. To study the various socio demographic factors influencing Quality of life – age, sex, education, employment, economic status, marital status, various spouse characteristics, hobbies and habits.

Hypothesis

Null hypothesis: There is no difference in Quality of Life between the community dwelling elderly and old age home inmates.

Material and Methods

The present study was conducted from institute of mental health, Hyderabad. The sample for the present study was collected from Venkatappaiah old age home, B.K Guda, Chudamani old age home, Kukatpally, old age welfare centre, Miyapur, Aashraya old age home, Miyapur, Little sisters old age home, Musheerabad and from community.

Sample: The study comprised of 97 subjects. Cases consisted of 49 subjects above the age of 60 years from old age homes from Hyderabad. Controls consisted of 48 subjects matched for age and gender from community.

Inclusion criteria: Age greater than 60 years, urban population and those persons willing to give informed consent.

Exclusion criteria: Persons not willing to participate, severe deafness and severe speech problems.

Operational Procedures

Permission was taken from the proper authorities for conducting the study in old age homes at Hyderabad. The subjects chosen for the study were explained the nature of the study. Verbal informed

consent was then obtained from each subject. These subjects were then screened using all the inclusion and exclusion criteria. Using intake proforma details about sociodemographic data and other personal details were collected. Each subject from the two groups was then administered Quality of life scale and was rated on the scale. The time taken for the interview was 30 min. approximately and the interview was conducted in a single session[15].

Description of scale

Quality of life scale (QOLS): This form of QOL scale consisted of 16 items rather than 15 found in the original Flanagan version. A qualitative study indicated that the instrument had content validity in chronic illness groups. The instrument is scored also by summing the items to make a total score. Subjects should be encouraged to fill out every item even if they are not currently engaged in it. Missing data can be treated by entering the mean score for the item.

The present study was done at Institute of Mental Health, Hyderabad on two groups namely – elderly people living in the community (control group) and elderly people living in OAHs (cases). Data has been analyzed using Statistical Package for Social Sciences (SPSS) version 16 for Windows. Intragroup data are described as means and percentages. Quantitative data between groups was analyzed using ANOVA. Qualitative data between the groups was analyzed using Chi - square test. Statistical significance was set at p value 0.05. The correlations between the variables were measured using Pearson correlation coefficient.

Results and Discussion

In the present study, comparing the Socio – demographic profiles (Table 1), the 2 groups were different in certain aspects: the OAH group had higher number of people in the 76-85yrs age group, those who were educated, and those who were widowed. There was no difference between the groups in other variables.

In the community sample, 77.1% (n=37) had no dependent children, while in the OAH sample, none had dependent children. In the community group, 81.3% (n=39) had no habits(like alcohol use or smoking), whereas in OAHs, none had any habits.

The QOL in community is compared with QOL in OAHs (Table 2),the mean QOL in OAH is 75.53 which is more than QOL in community which is 73.44. However, the difference of mean QOL in both groups is statistically not significant following null hypothesis. Even though there is a trend to better QOL in the OAH group, a larger sample size might be able to show the statistical significance. Study with similar design has shown that QOL in Nursing home residents was better than the community group.[12]

We have analysed the association of various socio demographic and other factors on QOL (Table 3) in elderly population. The QOL in different age groups in elderly did not show any statistical significance. Various studies have got conflicting results. Some studies have shown negative correlation of QOL with increasing age,[16] whereas, other studies have shown that age and well-being appears to be nonlinear.[17]

The difference in QOL between males and females is statistically not significant. Some studies have found that QOL in female elderly is lower than their male counterparts[18] and one study found that males and females differ significantly with regard to QOL.[19]

Highest QOL is seen in elderly people who studied till degree and least in illiterates and the difference between groups is statistically significant (P=0.008). Other studies have also got similar results that education was an important determinant of QOL and higher QOL was observed among the elderly with higher secondary and above educational qualifications.[16,20]

Mean QOL is more in middle socioeconomic status when compared to low and high socioeconomic status and the difference between groups is statistically significant (p=0.000) which in contrast to other studies which found that QOL and income are associatied in a linear fashion.[21]

QOL is high in married individuals and low in separated individuals. However, the difference between the groups is statistically not significant (p=.077). A study reported that those who reported loneliness had significantly lower health-related QOL than those who did not.[16] The studies have also found that better QOL were found among the married elderly in joint family than in nuclear family.[16,20]

Again elderly with presently workless and higher monthly income had the better QOL.[16] Mean QOL is high in retired elderly when compared to elderly who work less and employed. The difference of QOL in between groups is statistically significant (p=.007). This is in accordance to other studies which have found that unemployement is associated with poor QOL[21] whereas, high education and high income are associated with higher life satisfaction.[22]

Elderly e who don't have any habits had better QOL than those with drug using habits, similar to other studies[23] and least QOL is seen in smokers and the difference is statistically significant(p=001).

Subjects with playing as a hobby had a higher QOL compared to those who don't have a hobby but the difference is statistically not significant.

Spousal age and employment status had a positive association with QOL, in persons having spouses of age of 60-75 had higher QOL scores compare to those with spouses of age >75 (p=0.051). This can be explained on the basis that younger spouses are better able to take care of their partners needs and hence influence the QOL. High QOL is seen in people whose spouse is retired, whereas, it is low in people whose spouses are still working (p=0.008). This finding could be due to

the reason that the spouses who are still working would not be able to attend to the needs of the elderly and hence, the poor QOL.

Table 1: Socio demographic profile

Variable	Groups	Sample Old age home (N=49)	Sample Community (N=48)	X^2(df)	sig
Age	60-75 yrs	27	43	14.357(2)	0.001
	76-85 yrs	18	4		
	>85 yrs	4	1		
Sex	Male	24	23	0.11(1)	0.539
	Female	25	25		
Education	Illiterate	3	14	12.356(4)	0.015
	Primary	25	17		
	SSC	7	9		
	Inter	3	0		
	Degree	11	8		
Religion	Hindu	44	42	0.127(1)	0.485
	Christian	5	6		
Marital status	Single	9	0	17.522(3)	0.001
	Married	10	26		
	Separated	4	2		
	Widowed	26	20		

Table 2: Comparison of QOL

Sample	N	Mean	Std. Deviation	Sig
Old Age Home	49	75.53	11.746	0.426
Community	48	73.44	13.944	

Table 3: Association of various variables with the QOL (ANOVA)

	QOL	Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	46.514	2	23.257	.138	.871
	Within Groups	15819.734	94	168.295		
	Total	15866.247	96			
Sex	Between Groups	591.833	1	591.833	3.681	.058
	Within Groups	15274.415	95	160.783		
	Total	15866.247	96			
Education	Between Groups	2168.717	4	542.179	3.642	.008
	Within Groups	13697.531	92	148.886		
	Total	15866.247	96			
Occupation	Between Groups	1598.250	2	799.125	5.265	.007
	Within Groups	14267.998	94	151.787		
	Total	15866.247	96			
SES	Between Groups	2929.637	2	1464.818	10.644	.000
	Within Groups	12936.611	94	137.624		
	Total	15866.247	96			
Marital status	Between Groups	1122.194	3	374.065	2.359	.077
	Within Groups	14744.053	93	158.538		
	Total	15866.247	96			
Spousal Age	Between Groups	1268.325	3	422.775	2.693	.05
	Within Groups	14597.923	93	156.967		
	Total	15866.247	96			
Spousal Education	Between Groups	1676.498	5	335.300	2.150	.066
	Within Groups	14189.749	91	155.931		
	Total	15866.247	96			
Spousal occupation	Between Groups	1875.686	3	625.229	4.156	.008
	Within Groups	13990.561	93	150.436		
	Total	15866.247	96			
Habits	Between Groups	2613.641	3	871.214	6.114	.001
	Within Groups	13252.606	93	142.501		
	Total	15866.247	96			

Conclusions

- High QOL is seen in elderly who are highly educated, belonging to middle socio economic status, who are retired, who doesn't have any habits, whose spouses are young old and whose spouses are retired.
- The difference of mean QOL scores in the community and old age homes are statistically not significant.

Limitations of the Study

The generalization of the findings is limited because of the small sample size.

It was a cross sectional study and the individuals were not followed up.

The cases may not have been representative of cases and controls in general population.

Association of many other factors with QOL are not studied as the main focus of this article is to study the association of various socio demographic factors.

Future Directions

Many studies need to be done in this special population assessing the QOL, as it is an important concept which helps in evaluating the well-being of elderly. In India, old age homes are looming large in every nook and corner and there are very few studies done on QOL in this special population and the influence of various factors in the elderly. Any organizations which cater for the elderly should aim at providing for their needs in physical, psychological, social and spiritual ways to improve the QOL.

Bibliography

1. Almeida OP, Forlenza OV, Lima NK, Bigliani V, Arcuri SM, Gentile M, Faria MM, Lourenco CC, de Oliveira DA (1997). Psychiatric morbidity among the elderly in a primary care setting-report from a survey in Sao Paulo, Brazil. Int J Geriatr Psychiatry. Jul;12(7):728-3.
2. Khandelwal SK. Mental health of older people. In: Dey AB, editor. Ageing in India. Situational analysis and planning for the future. New Delhi: Rakmo Press; 2003.
3. Oort, F. (2005). Using structural equation modelling to detect response shifts and true change. Quality of Life Research, 14(3),587-598.
4. Oort, F., Visser, M., & Sprangers, M. (2005). An application of structural equation modeling to detect response shifts and true change in quality of life data from cancer patients undergoing invasive surgery. Quality of Life Research, 14(3),599-609.
5. Ferrell, B. (1995). The impact of pain on quality of life. Adecade of research. The Nursing Clinics of North America, 30(4),609.
6. Lawton MP. (1991). A multidimensional view of quality of life in frail elders. In: E Birren, editor. The concept of quality of life in the frail elderly. San Diego: Academic Press. p. 3-27.
7. Abhishek Gupta, Uday Mohan, Sarvada C Tiwari, Shivendra K Singh, Vijay K Singh (2014). Dimensions and determinants of quality of life among

8. senior citizens of Lucknow, India Int J Med Public Health;4:477-81.
8. Abrahamson K, Clark D, Perkins A, Arling G(2012). Does cognitive impairment influence quality of life among nursing home residents? The Gerontologist;52(5):632–640. [PMC free article] [PubMed]
9. Mollenkopf, H., & Walker, A. (Eds.). (2007). Quality of life in old age: International and multi-disciplinary perspectives. Social Indicators Research Series, Volume 31. Springer.
10. Levy BR1, Slade MD, Kasl SV (2002) Longitudinal benefit of positive self-perceptions of aging on functional health. J Gerontol B Psycholscisoc sci Sep; 57(5):P409-17.
11. Pearson, Windsor, Crisp, et al.,(2012). Neighborhood characteristics: Shaping the wellbeing of older Australians NSPAC Research Monograph No. 2, July 2012 Centre for Research on Ageing, Health and Wellbeing the Australian National University.
12. Kane RA1, Kling KC, Bershadsky B, Kane RL, Giles K, Degenholtz HB, Liu J, Cutler LJ(2003). J Gerontol A BiolSci Med Sci. Quality of life measures for nursing home residents Mar;58(3):240-8.
13. Aruna Dubey, Seema Bhasin, Neelima Gupta and Neeraj Sharma(2011). A Study of Elderly Living in Old Age Home and Within Family set-up in Jammu Stud Home Com Sci,5(2):93-98.
14. Md Asadullah, Kunal Kuvalekar, Basavraj Katarki, Sowmya Malamardi, Santosh Khadka, Shailesh Wagle and Padmamohanana study on morbidity profile and quality of life of inmates in old age homes in Udupi district, Karnataka, India International Journal of Basic and Applied Medical Sciences ISSN: 2277- 2012 Vol. 2 (3) September-December, pp.91-97.
15. Anitha et al. A cross sectional comparative study assessing the psychiatry morbidity in elderly living in old age homes and community. Andhra Pradesh journal of psychological medicine ISSN 2249-5851 vol 15 issue1:86-92.
16. Ganesh Kumar S., Anindo Majumdar, and Pavithra G(2014) Quality of Life (QOL) and Its Associated Factors Using WHOQOL-BREF among Elderly in Urban Puducherry, India J Clin Diagn Res. Jan;8(1):54–57.
17. Bender, K. (2004). The Well-Being of Retirees: Evidence Using Subjective Data. http://www.bc.edu/centers/crr/papers/wp_2004-24.pdf).
18. Ghosh, Dona (2015). Impact of gender aspect on self-perceived quality of life of elderly Impact of gender aspect on self-perceived quality of life of elderly.
19. Akanni Akinyemi, Joshua Aransiola(2010). Gender perspectives in self-assessment of quality of life of the elderly in South-Western Nigeria Are there variations in quality of life among ageing men and women? - Journal of comparative research in anthropology and sociology Copyright © The Author(s), Volume 1(1):107-120 ISSN 2068–0317 http://compaso.ro).
20. A Md Nuruzzaman Khan, Md Nazrul Islam Mondal, Nazrul Hoque, Mohammad Shariful Islam, M Shahiduzzaman(2014) A study on quality of life of elderly population in Bangladesh. American Journal of Health Research; 2(4):152-157.
21. Olufunke O. Adeyeye, Olayinka O. Ogunleye, Ayodele Coker, Yetunde Kuyinu, Raymond T. Bamisile, Udeme Ekrikpo, Babatunde Onadeko(2014)Factors influencing quality of life and predictors of low quality of life scores in patients on treatment for pulmonary tuberculosis: a

cross sectional study. Journal of public health in africa-DOI: http://dx.doi.org/10.4081/jphia..366.

22. Schwarz, A. (2003). Old Age and Security Pensions. http://info.worldbank.org.

23. Srivasstava S., Bhatia M.S., Rajender G., Angad S(2009). Quality of Life in Substance Use Disorders Delhi Psychiatry Journal 2009;12:(1).