ORIGINAL ARTICLE

QUALITY OF LIFE AMONG ELDERLY PEOPLE IN LAR CITY (SOUTHERN IRAN)

Mohammad-Rafi Bazrafshan[1], Seyyed Hannan Kashfi*[1], Hajar Haghshenas[2], Abbas Salmani[2], Abolfazl Shojaei[3]

[1] *Larestan School of Medical Science, Larestan, Iran*
[2] *Department of Nursing, Gerash School of Medical Sciences, Shiraz University of Medical Sciences, Shiraz, Iran*
[3]*MSc. In Nursing, Shahid Sadoughi University of Medical Sciences and Health Services, Yazd, Iran*
* Corresponding Author: Seyyed Hannan Kashfi, Larestan School of Medical Science, Larestan, Iran. Fax: +98-7152247111, Tel: +98-7152247110, E-mail: hannankashfi@yahoo.com

ABSTRACT: Aging is a personal and a social experience. These experiences can bring gladness or sadness and tedious for one. For making decision and planning for these groups, therefore improve elderly quality of life, we must know their problems exactly. the researchers attempts to carry out a research to investigate the effects of factors like age, gender, marital status, education level, job, income, diseases and taking medications on elderly quality of life. This study is a cross – sectional and descriptive design that was carried out in Lar city. Samples of this study were 275 older adult aged 60 – 86 years were selected with cluster sampling method. Instrument for data collection was LEIPAD questionnaire with two domains (main and facilitative). Data were analyzed in SPSS, version 16. The results indicated that there is a significant difference between overall mean of QOL score with age and income level in both gender (p< 0/05). There is significant difference between overall mean of QOL score of elderly women with educational level, existence chronic disease and drug utilize (p<0/05). There is significant difference between overall mean of QOL score with marital status of elderly men (p<0/05), There is no significant difference observed between overall mean of QOL score with gender and job (p>0/05). results of this study express some variable and factors such as marital status, level of education, chronic disease, drug utilize, age and income affect Quality of elderly life, so strategies should be directed toward such variable mentioned for planning and solving present and further elderly problems.

*Keywords***:** Aging, Iran, Quality of life

INTRODUCTION

Population aging is a phenomenon many countries face now or will face in future. It is the result of improvements in health, social and economic conditions; reduction in mortality rate, increase in Life Expectancy and adoption of birth control policies. In 2000, the population of people above 60 was 600 million amounting to 10 percent of the total world population. It is predicted that the number of people in this age range will reach 1.2 billion in 2025 and 2 billion in 2050 (21 percent of the total world population) (Ajh, Mehrtash et al. 2012). The growth in the population of elderly people is so fast that it has been described as silent revolution (Hesamzadeh, Maddah Sadat et al. 2010). Eighty percent of all elderly people live in developing countries. Iran is among developing countries. Based on the 2006 public census, 3.7 million people in the country are above 60 and the number is expected to reach 8.5 within next 20 years. This shows the importance of paying attention to the elderly population (Aliasquarpoor and Eybpoosh 2012). Although the main public health challenge in 20th century was to increase life expectancy, in 2l century it is to increase

quality of life. Obviously, the purpose of elderly people's life is not just to remain alive for a longer time, but to maintain a high-quality life which is one of the main challenges in 2lS century(Jadidi, Farahaninia et al. 2011). One of the reliable and measurable criteria and indices for determining needs and improving health, social welfare and empowerment is that of quality of life (QL) assessment which has caused changes in different areas. Using this index one can pinpoint problems, needs and lacks of different groups especially the elderly(Ahangari, Kamali et al. 2007). In other words, maintaining and improving the elderly's health requires precise information for planning appropriate measures to improve their quality of life (Darvishpoor Kakhki, Abed Saeedi et al. 2012). Quality of life is an essential index for this purpose and as it includes different dimensions like physiologic, performance-related and personal aspects, it deserves due attention(Masoudi, Soleimani et al. 2010). Quality of life is the criteria for measuring best energy or power in the individual that can be used for compatibility of the individual with present challenges (Jadidi, Farahaninia et al. 2011). The concept of quality of life in the elderly life is so

important that the second UN and WHO conference on elderly quality of life in 2002 announced that elderly quality of life can be easily endangered. Therefore, knowing about factors affecting quality of life in elderly people is of high importance. Thus in the process of protecting, treating and taking care of the elderly, these factors should be recognized and managed to increase efficiency of these measures(Aliasquarpoor and Eybpoosh 2012). Researches state that assessing elderly quality of life can improve the relationship between these people with their health team(Habibi Sola, Nikpour et al. 2008). Therefore, assessing the elderly quality of life can pave the way for suggesting better ways of improving quality of life(Babaei, Jalali et al. 2005). In other words, we can use this assessment to understand different aspects of issues and challenges faced by elderly and to take effective measures to improve their quality of life. the researchers attempts to carry out a research to investigate the elderly people's QL in Lar and the effects of factors like age, gender, marital status, education level, job, income, diseases and taking medications on their quality of life.

MATERIALS AND METHODS

This is a cross sectional and descriptive-analytical study which investigated the elderly people's QL using LEIPAD Quality of Life (LQL) questionnaire. Given the type of study and its purposes which is the comparison of two means the following formula was used for sampling.

$$n = \frac{2\sigma^2 (Z_{1-\alpha/2} + Z_{1-\beta})^2}{d^2}$$

Where: σ Is the standard deviation of the two groups based on previous studies acquire 12.5; $Z_{1-\alpha/2}$ is the significance level i.e. 0.95. Power is equal 0.80 and D is accepted error which is considered to be 3 based on previous studies.

The sample size was 275 individuals who were selected through a few stages from Lar, Iran. Given the heterogeneity of samples, first the town was divided into some clusters in two categories of old and new town based on Lar map. 3 clusters were chosen from each category and from each cluster, 46 individuals were chosen. The researchers went to their house and asked them to answer the questionnaire.

First, personal data including age, gender, marital status, education level, job, income, diseases and

taking medications were collected via demographic information questionnaire. Then the sample's quality of life was measured using LEIPAD Quality of Life (LQL) questionnaire. The 31-item LEIPAD questionnaire designed to measure seven main elderly people's QL dimensions or domains: physical function, self-care, depression and anxiety, cognitive functioning, social functioning, sexual functioning, and life satisfaction. Other items measure self-perceived personality disorders, social desirability, self-esteem, anger, and faith in God. They include 21 questions. To ensure the validity, the questionnaire was translated and modified by other researchers who were all faculty members of Medical Sciences Universities. To determine the reliability of the measure, the internal consistency and test retest methods were used and the results were compared with each other. The questionnaire was administered to 20 individuals and was re-administered to the same persons two weeks later. The results were compared with each other, and the reliability was confirmed with Cronbach's alpha of 92% and correlation of 93%. The present study was confirmed by Faculty of Nursing and participation informed consent forms were used that was provided in accordance with the Helsinki Declaration. To analyze the data, SPSS 16 and t-test and one-way analysis of variance and Pearson correlation coefficient were used.

RESULTS

Data analysis indicated that mean and SD were 65.53±4.61 and 66.97±6.28 for age of male and female participants respectively.

In table 1 the relationship between QL and marital status, education level, chronic diseases and medications taken as analyzed by one-way ANOVA.

The results show that there is a significant relationship between main QL domain of both sexes and marital status (p<0.05). Also there is a significant relationship between overall QL of male participants and their marital status (p=0.002). From among different dimensions of QL, physical function, self-care, cognitive functioning, social functioning, sexual functioning, life satisfaction, and anger have significant relationship with marital status of male participants. However, only life satisfaction and anger have significant relationship with marital status of female participants (p<0.05).

There is a significant relationship between facilitative QL and overall QL with education level of female participants (p<0.05). None of the dimensions of QL has significant relationship with education level of

926

male participants (p>0.05). Physical function, self-care, perceived personality disorders and self-esteem have significant relationship with education level of female participants (p<0.05).

The findings indicate that there is a significant relationship between main QL and overall QL with chronic disease of female participants (p<0.05). Only facilitative dimension of QL has significant relationship with chronic disease of male participants (p=0.028). Physical function, self-care, depression and anxiety, cognitive functioning, social functioning, life satisfaction and self-esteem have significant relationship with chronic disease of female participants (p<0.05).

Findings of analysis of the relationship between different dimensions of QL and medications taken show that there is a significant relationship between facilitative, main and overall QL with medications taken by female participants (p<0.05). None of the dimensions of QL has significant relationship with medications taken by male participants (p>0.05). Self-care, depression and anxiety, cognitive functioning, social functioning, sexual functioning, life satisfaction, perceived personality disorders and self-esteem have significant relationship with medications taken by female participants (p<0.05). However, only sexual functioning has significant relationship with medications taken by male participants (p<0.05).

T-test results for investigating the relationship between QL and the participants' employment in table 2 show that there is a significant relationship between only facilitative QL with employment status of female participants (p=0.009). None of the different types of QL has significant relationship with employment status of male participants (p>0.05). Physical function and self-care have significant relationship with employment status of female participants (p<0.05). However, anger and self-esteem have significant relationship with employment status of male participants (p<0.05). In table 3, the relationship between different parts of QL and two variables of age and income are investigated using Pearson correlation. The results show that there is a significant relationship between main and overall QL with the age variable for both female and male participants (p<0.05). Physical function, self-care, depression and anxiety, cognitive functioning, social functioning, sexual functioning and life satisfaction have significant relationship with age variable of male participants (p<0.05). Physical function, self-care, cognitive functioning, life satisfaction, and perceived personality disorders have significant relationship with age variable of female participants (p<0.05).

The investigation of the relationship between different parts of QL (main and facilitative) and income as well as between overall QL and income show that there is a significant relationship between two dimension of QL and overall QL with income of male participants (p<0.05). Also there is a significant relationship between total and main QL with income of female participants (p<0.05). There is a significant relationship between all dimensions of main QL and income of male participants (p<0.05). Physical function, self-care, depression and anxiety, life satisfaction, and perceived personality disorders have significant relationship with income of female participants (p<0.05).

Table 1: The relationship between QL and marital status, education level, chronic diseases and medications taken for elderly people

Quality of Life Variables			main	facilitative	total	Probability value (p value)					
						main		facilitative		total	
						male	female	male	female	male	female
Marital Status	Single	Male (n=0)	-	-	-	*p=0.00 0	*p=0.02 1	P=0.073	p=0.117	*p=0.0 02	P=0.080
		Female (n=l)	65	17	82						
	Married	Male (n=73)	60.07	15.05	75.12						
		Female(n=77)	59.25	13.51	73						
	Spouse died	Male (n=52)	50.90	14.92	65.83						
		Female (n=50)	54.39	15.22	69.50						
	Divorced or	Male (n=12)	54.58	12.17	66.75						

separated		Female (n=10)	49	14	63						
Education level	Illiterate	Male (n=20)	56.15	14.75	70.90	p=0.968	P=0.072	P=0.953	*p=0.006	P=0.993	*P=0.007
		Female (n=50)	52.38	12.74	64.75						
	Elementary	Male (n=29)	54.79	15.28	70.07						
		Female (n=21)	58.14	15.14	73.29						
	Junior high school	Male (n=52)	56.25	14.48	70.73						
		Female (n=38)	58	15.84	73.97						
	diploma	Male (n=30)	56.67	14.70	71.37						
		Female (n=23)	60.17	13.87	74.04						
	Academic	Male (n=6)	58.33	14.83	73.17						
		Female (n=5)	61.25	13.60	76.50						
Chronic diseases	Cardio vascular	Male (n=44)	54.18	14.92	69.10	P=0.851	*p=0.000	*p=0.028	P=0.057	P=0.827	*p=0.001
		Female (n=56)	50.03	13.29	63.24						
	Skeletal muscular	Male (n=54)	56.17	15.71	71.88						
		Female (n=53)	50.04	13.82	63.91						
	Other	Male (n=23)	55.36	15.33	70.69						
		Female (n=26)	46.18	13.70	59.88						
Medication taken	Cardio vascular	Male (n=37)	57.51	15.84	73.36	P=0.l46	*p=0.0l4	p=0.180	*p=0.004	P=0.l91	*p=0.024
		Female (n=58)	52.83	14.12	66.70						
	Skeletal muscular	Male (n=11)	62.71	14.88	77.58						
		Female (n=34)	55.18	13.20	68.22						
	Other	Male (n=19)	56.41	15.80	72.21						
		Female(n=l8)	49.04	13.91	62.95						

* Significant relationship (at alpha = 0.05).

Bazrafshan et al

Table 2: The relationship between QL and employment status of elderly people

Quality of Life			main	facilitative	total
Employment status	Self-employed	Male(n=97)	57.36	14.82	72.19
	Housewife	Female (n=92)	56.26	14.85	71.18
	Retired	Male (n=40)	53.08	14.58	67.65
		Female (n=45)	57.86	12.93	70.98
	Probability value	Male	0.072	0.748	0.109
		Female	0.479	*0.009	0.934

* Significant relationship (at alpha = 0.05)

Table 3: The relationship between QL and two variables of age and income of elderly people

Variables		Main QL		Facilitative QL		Overall QL	
		Age	Income	Age	Income	Age	Income
Pearson correlation coefficient	Male	-0.475	0.456	-0.079	0.194	-0.422	0.437
	Female	-0.176	0.346	-0.122	0.149	-0.202	0.350
Probability value	Male	*0.000	*0.000	0.356	*0.023	*0.000	*0.000
	Female	*0.048	*0.000	0.155	0.130	*0.023	*0.000

* Significant relationship (at alpha = 0.05).

Table 4: presents the t-test results for relationship between different parts of QL and gender of elderly people. The results show that there is no significant relationship between different parts of QL (main and facilitative) and gender of elderly people (p>0.05). There is a significant relationship between anger, social desirability and self-esteem of male and female participants (p<0.05).

Table 4: the t-test results for relationship between different parts of QL and gender of elderly people

Quality of Life		main	facilitative	total
Gender	Male (n=137)	56.11	14.75	70.86
	Female (n=138)	56.79	14.19	71.06
	Probability value	0.675	0.255	0.911

DISCUSSION

Table 1 shows that among single participants, mean main and facilitative QL and overall QL of female elderly people and among married participants, mean main QL and overall QL of both gender are higher than other groups of marital status and Mean QL of divorced or separated participants are the lowest. In their study on 300 elderly people in Tehran who were randomly selected from among those 60 years and older, Ahangari, et. al. (2007) found similar results(Ahangari, Kamali et al. 2007). In another study, Hagedoon, et al (2006) investigated the association between marital status and distress in older people 65 and older; (N =1649). In this study married persons were less distressed than single persons, but married persons who felt inequitably treated were more distressed than persons who had always been single. In this study married persons reported less distress than widowed persons(Hagedoorn, Van Yperen et al. 2006). Also, table 1 show that facilitative and overall QL of female participants increases with education level. None of the facilitative, main and overall QL has significant relationship with education level of male participants. Pereira et al. (2006) studied the contribution of the physical, social, psychological and environmental domains to overall quality of life of the elderly. Their Analyses showed that none of the variables interfered significantly in the overall quality of life domain(Pereira, Mitre Cotta et al. 2006). However, Ahangari et al (2007) in their study found that QL of elderly people increases with education level (Ahangari, Kamali et al. 2007).

Other findings of the table show that chronic diseases (skeletal-muscular and cardio vascular) of female participants affect their main QL and overall QL. The effects of chronic diseases of elderly people and its effects of decreasing their QL because of their disabilities have been confirmed by many studies(Movaghari and Nikbakht Nasrabadi 2003). Orfila et al (2006) investigated gender differences in health-related quality of life among the elderly in Spain. Their findings showed that the condition of Health-Related Quality of Life (FIRQL) among women is in poor situation as compared to that of men. According to the authors worse reported HRQL in elderly women is mainly due to a higher prevalence of disability and chronic conditions(Orfila, Ferrer et al. 2006). Health has different dimensions each of which can affect quality of life. People pay attention to their health because it affects their life and welfare and because health and quality of life have a two way relationship where health problems lead to lower quality of life and vice versa (Habibi Sola, Nikpour et al. 2008).

Findings the study on the relationship between different dimensions of QL and medications taken show that there is a significant relationship between facilitative, main and overall QL with medications taken by female participants. Elderly people's QL is affected by different factors including different diseases as well as the side effects of medications. For example medications taken for lowering blood pressure in older people because side effect of these medications decreases their quality of life (Ahangari, Kamali et al. 2008). Table 2 shows that facilitative QL in housewives is higher than that of retired female participants. Important events of old age period like retirement can create a sense of loneliness in these people and negatively affect their QL (Mohagheghi Kamal, Sajadi et al. 2008). In this regard, mental health experts believe that if retirement leads to isolation of elderly people it can reduce their quality of life (Rezaei and Manouchehri 2008). As shown in table 3, there is a significant relationship between main and overall QL with the age variable for both female and male participants so that an increase in age results in decrease in main and overall QL. This is consistent with Albou Kordi et al's (2007) study on 100 elderly women to investigate their QL. They reported a significant inverse correlation between age and QL score (Albou Kordi, Ramezani et al. 2007). Garcia et al (2005) in a study on older adults in Spain reported an inverse correlation between age and QL(García, Banegas et al. 2005).

Other findings of the table show that an increase in income increases QL in both sexes. Counsell et al (2007) in a study on 951 adults 65 years or older with low annual income from India found that because these people have frequent clinical problems and do not receive standard care they have lower QL(Counsell, Callahan et al. 2007). Poverty and social deprivation are among the main factors inhibiting welfare and security of elderly people. Economic and living problems are among factors that affect psychological conditions of these people. In a study by Habibi Sola et al (2008) quality of life elderly people in western Tehran was investigated. The results showed that the mean QL of people with better economic conditions was significantly higher than that of people who had poor economic conditions (Habibi Sola, Nikpour et al. 2008). A review of past studies indicates the effects of different factors (age, marital status, education level, job, income, diseases and taking medications) on the elderly quality of life.

Table 4 shows no significant relationship between overall QL and main and facilitative QL of male and female participants. These results are inconsistent with those of Nouhi et al (2012), Ahangari et al (2008), Habibi Sola et al (2008), Samadi et al (2007) and Albou Kordi et al (2007) (Albou Kordi, Ramezani et al. 2007; Samadi, Bayat et al. 2007; Ahangari, Kamali et al. 2008; Habibi Sola, Nikpour et al. 2008; Nouhi, Mehdipour Rabari et al. 2012), but are consistent with those of Hesamzadeh et al (2010) which investigated QL and its dimensions in elderly people living in families and private and state institutes of Tehran (Hesamzadeh, Maddah Sadat et al. 2010). Orfila et al (2006) state that 'although worse Health-Related Quality of Life (HRQL) among women has been widely described, it remains unclear whether this is due to differential reporting patterns, or whether there is a real difference in health status. They carried out a study on 872 elderly people of Barcelona's general population. In their early results, women showed worse results than men on HRQL, but decreased to a non-significant point (p = 0.18) after adjusting for all the other variables. In conclusion, their data suggest that 'worse reported HRQL in elderly women is mainly due to a higher prevalence of disability and chronic conditions' (Orfila, Ferrer et al. 2006). Aliasquarpoor and Eybpoosh (2012) attribute worse Health-Related Quality of Life (HRQL) among women to the age variable. They investigate the sleep quality and quality of life of elderly residents of Kahrizak Charity Foundation and its relationship with different factors. They argue that given the fact that 70 percent of female participants were above 75 compared to only 42 percent of male participants, and the average age of female

participants were higher than male participants, and because there is a negative relationship between increase in age and decrease in QL, the higher QL in men can be attributed to their lower average age(Aliasquarpoor and Eybpoosh 2012).

This study has some limitations. The psychological conditions of participants when answering the questions and the effects of physical and psychological diseases in this regard were not taken into account. Moreover, the economic and social atmosphere governing the participants' living area could affect the results but were out of the control of the researcher. Lack of enough equipment for examining participants to detect possible diseases was another related limitation. Despite these limitations, the findings of this study can be a comprehensive source of quality of life of elderly people of Lar.

CONCLUSION

The results of this study confirm the effects of factors like age, marital status, education level, job, income, diseases and taking medications on quality of life of elderly people. Despite the effects of these factors on quality of life of elderly people, we can plan appropriate measures including social, emotional and financial supports, to improve their quality of life and reduce the negative effects of the factors mentioned.

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FINANCIAL DISCLOSURE

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