Evaluation of Quality of Life and Safety of Seniors in Golestan Province, Iran

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Abstract

This study evaluated the criteria for quality of life (QoL) using standardized short-form health survey with only 36 questions (SF-36; Version 2.0) and Consumer Product Safety Commission (CPSC) questionnaires to study the relationship between QoL and living conditions of seniors in Golestan province in Iran. This was an analytical cross-sectional study with descriptive and analytical parts. The population was individuals above 65 years of age in Golestan province in Iran. The sample size was calculated based on the correlation coefficient; a correlation of .2 or greater was considered statistically significant at 80% for the power of the test at the 95% confidence level. The data on QoL of seniors were collected by interview and observation using the CPSC questionnaire for nursing homes and the SF-36 for QoL health indicators. The reliability of the CPSC questionnaire was estimated using Cronbach's alpha with a coefficient of .838. The SF-36 questionnaire was validated with Cronbach's alpha with a coefficient of .95. Chi-square and logistic regression were used to interpret the probability of abnormal QoL between levels of independent predictors. The percentage of seniors in overall poor health as a binary outcome was 43.5, and the percentage of unsafe conditions was 49.8.

Keywords

evaluation, quality of life indicator, senior safety, questionnaire, SF-36, CPSC, Golestan province, Iran

Introduction

Aging is inevitable and is recognized as a critical period of life (Evci, Ergin, & Beser, 2006). WHO has defined aging as a decrease in the ability to adapt to environmental factors and suggests that people above 60 years can be considered to be aged (Evci et al., 2006). Improved nutrition and hygiene, access to health services, increased awareness, and development of medical knowledge and technology such as diagnostic tools have increased life expectancy, and the number of people who reach age 60 is increasing (Malekafzali et al., 2010). Between 2000 and 2050, the number of people aged 80 years is predicted to quadruple. During this period, the proportion of people aged 60 years and older will increase from 11% to 22% (Lutz, Sanderson, & Scherbov, 2008). It is estimated that the number of people above age 60 worldwide in 2025 will exceed 1.2 billion; in 2000, this figure was 600 million (Anglin & Schneider, 2009).

Increased interest in home and environmental health has stimulated research on living conditions that have mainly focused on children or accidents that occur outside the home. There is no common definition of home safety, and much remains to be learned about the effect of conditions in the home on health and the best ways to improve those conditions (Evci et al., 2006). Nearly 15% of people admitted to emergency departments are seniors, and this number is expected to reach 25% by 2030, 5% of whom will be above 85 years of age (Farzianpour, Arab, Hosseini, Pirozi, & Hosseini, 2010). Healthy aging is the key for continued involvement of seniors in the community and involves all aspects of physical, psychological, social, and spiritual health. Improving the quality of life (QoL) will allow people, especially seniors, to feel better and make more effective use of resources in health and social services. A

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standardized questionnaire containing scales and measures related to QoL can be used to determine the effects of medical intervention, compare the health of different population groups, and evaluate health needs. This makes it possible to learn about health and how QoL relates to health and the effects of different factors on health (Ardalan et al., 2009; Ardalan & Mazaheri, 2010; Avlund et al., 2003; Farzianpour, Farokhi, Shojaei, Shafi, & Manafi, 2014; Farzianpour, Hosseini, Rostami, Pordanjani, & Hosseini, 2012; Tabatabaie et al., 2010). The present study assessed QoL using the SF-36 questionnaire to investigate the effects of factors such as age, sex, education, residence, marital status, occupation, and organizations support services. The Consumer Product Safety Commission (CPSC) questionnaire was used to assess the health of the home environment and its relationship with QoL.

Conceptual Framework

Farquhar (Farquhar, 1995) categorized the QoL of different lifestyles. He considered QoL from the global, fractioned, and concentrated perspectives. The general global definition expressed by (Farquhar, 1995) defines QoL as the degree of satisfaction or dissatisfaction felt by individuals at various stages of life.(Farquhar, 1995) defined QoL as the conditions for being happy and satisfied. The definition of fractioned QoL focuses on the multi-faceted nature of the concept and each facet separately. George and Biron (Farquhar, 1995) discerned two objective dimensions (general health and functional status; socio-economic status) and two non-objective dimensions (life satisfaction; self-esteem). Hughes (Aghamolaei, Tavafian, & Zare, 2010; Allain et al., 1997; Backman & Hentinen, 1999; Bowling, 1995; Davies, Laker, & Ellis, 1997; Higgs, MacDonald, & Ward, 1992; http://www.rand.org/health/surveys_tools/mos.html; Nystrom & Segesten, 1994; Oleson, Heading, Shadick, & Bistodeau, 1994; Torrance, 1987) defined the QoL in terms of satisfaction, a sense of mental and physical well-being, socio-economic status, environmental quality, targeted activities, social integration, and cultural factors. The concentrated perspective focuses on one or two aspects of the dimensions, which tend to arise from the professional and political propensities of the various parts. For example, for QoL health services, research has focused on health and functional status measures (Bowling, 1995), and for health economics on work assessment (Torrance, 1987). The SF-36 questionnaire is a measure of safety. The short form of the measure was first provided by the Medical Outcomes Study proposed by the Rand group. The CPSC questionnaire assesses the health of the home environment (Allain et al., 1997; http://www.rand.org/health/surveys_tools/mos.html).

The CPSC is an independent federal regulatory agency with a mission to protect the public against unreasonable risk of injury or death from consumer products through education, safety standards activities, regulation, and enforcement (Backman & Hentinen, 1999; Davies et al., 1997; Higgs et al., 1992; http://www.cpsc.gov/en/About-CPSC/Chairman/Kaye-Biography; http://www.referenceforbusiness.com/encyclopedia/Con-Cos/Consumer-Product-Safety-Commission-CPSC.html#ixzz3Z4Wgmzsa; Klein, 1998; Nystrom & Segesten, 1994; Oleson et al., 1994; Sample records for life measure validation from WorldWideScience.org; www.science.gov/topicpages/s/study+outcome+measures.html).

Method and Materials

This research was approved by the Vice Chancellor for Research of Tehran University of Medical Sciences and the Research and Ethics Committee as #19430-123225 on March 27, 2012. The study is an analytical cross-sectional study with descriptive and analytical parts. The population was individuals above 65 years of age (defined as seniors) in the province of Golestan, Iran. In the first phase, the number of seniors in nursing homes in Golestan province was determined. Next, samples were selected from the population of the nursing homes. For sampling, each nursing home was considered to be a cluster for which simple random sampling was carried out and which were surveyed. The goal was to investigate the association between QoL scores and satisfaction scores in nursing homes. The sample size was calculated based on a correlation coefficient; a correlation of .2 or greater is statistically significant at 80% for power of test at a 95% confidence level. The sample size was calculated as follows:

$$r = 0.2; \ w = 0.203; \ Z_{1-a/2} = 1.96; \ Z_{1-b} = 0.84, \text{ and}$$
$$n = (Z_{1-a/2} + Z_{1-b})^2/w^2 + 3 = 199.$$

Because each nursing home was considered to be a cluster and there are only five nursing homes in Golestan province, all were studied; thus, the sample size was multiplied by the ratio of cluster sampling (1.5), and the size of sample was obtained as follows:

$$n = 199 \times 1.5 = 298.5.$$

Because the study population was limited ($n = 350$), the number of samples was adjusted according to the following formula for a final research population of about 193 seniors.

$$n^* = \frac{n_0}{1 + n_0 / N} = 198.5 / (1 + 198.5 / 350) = 193.$$

Data Collection Methods and Tools

Data were collected using the CPSC questionnaire to measure QoL in nursing homes and the SF-36 questionnaire to determine quality indicators. The results were analyzed using SPSS V.17 software.

The questionnaires consisted of two parts. The first part obtained demographic and other background information that is assumed to affect QoL and quality indicators of the seniors. The second part contained questions related to QoL. The SF-36 questionnaire scored all questions and the general QoL quantitatively on a scale from 0 to 100. The questionnaires were completed by interview and observation.

The SF-36 consists of eight dimensions: physical functioning (PF), mobility restriction (MR), bodily pain (BP), general health (GH), vitality (V), social functioning (SF), emotional problems (EP), and mental health (MH). Each dimension was scored from 0 through 100. The SF-36 has been validated by Montazeri, Goshtasebi, Vahdaninia, and Gandek (2005) as having a Cronbach's alpha coefficient of .95 for the Iranian population (Mohamadian et al., 2011; Montazeri et al., 2005). The CPSC questionnaire had 54 items, and each item had two options (yes/no). The CPSC has been validated by Farzianpour, Rahimi Foroushani, Badakhshan, and Gholipour (2015). The reliability of the CPSC questionnaire was estimated using Cronbach's alpha with a coefficient of .838 (Farzianpour et al., 2015; Farzianpour & Tajvar, 2004). The chi-square test and logistical regression were used to interpret the probability of abnormal QoL between levels of independent predictors. The intra-class correlation coefficient showed that the internal consistency of items on the CPSC was acceptable with an average of .815.

Statistical Method and Tools

Data were analyzed using the chi-square test for one-variable analysis and logistic regression modeling for multi-variable analysis.

Location of Research

This study was conducted on 193 individuals attending the Jahandidegan Geriatric Charity Institute in the city of Golestan.

Ethical Considerations

All participants were given a full explanation of the study and freely consented to participate in the research. The questionnaires did not contain the names of the participants, and they were assured that the information collected would be kept confidential and under no circumstances would the published results contain the names of the participants.

Overcoming Operational Limitations

The limitations of this study included several changes in management of the State Welfare Organization of the province that delayed the implementation phase of the project. Other restrictions were the lack of cooperation by some seniors for completing the questionnaire, and it was necessary to fully explain all options to them. In some cases, educated and interested members of their households were asked to encourage and explain the importance of the project, especially regarding questions on the CPSC questionnaire.

Results

In this study, 193 seniors above 65 years of age admitted to the Jahandidegan Geriatric Charity Institute were interviewed, and the SF-36 for QoL and the CPSC for private residences were completed. Of the seniors, 17.8% were male and 82.2% were female, 81.4% lived in rural areas and 18.6% lived in a city, and 5.4% were single, 62% were married, 3.3% were divorced, and 29.3% were widowed (Table 1). In terms of ethnicity, 91.5% were Fars, 1.6% were Turkmen, 4.2% were Sistani, and 2.6% were other ethnicities. For religion, 97.9% were Shia Muslims, and 2.1% were Sunni Muslims. About 20.5% of the participants were illiterate, 35.8% had primary school education, 21.6% had completed literacy courses, 17.9% had high school diplomas, 3.2% had associate degrees, and 1.1% had bachelor's degrees. The participants received assistance from the following organizations: Relief Committee 6%, State Welfare 1.6%, health services 37%, Social Security 35.3%, military insurance 7.1%, complementary insurance 1.6%, other support services 4.3%, and without support services 7.1% (Table 1). Of all participants, 2.1% were unemployed, 1.9% were employed, 4.2% were self-employed full-time, 4.7% were employed part-time, 66.1% were housewives, 10.6% were farmers, and 3.2% were retirees (Table 1). Analysis of the data showed that 46.4% of men lived in urban and 53.6% lived in rural areas. Of females, 88% lived in urban and 12% lived in rural areas. Of the male participants, 87.9% were married, 6.1% were divorced, and 6.1% were widowers. Of the female participants, 6.9% were single, 55.6% were married, 2.8% were divorced, and 34.7% were widows (Table 1). Of the male participants, 75.8% were Fars, 18.2% were Sistani, and 6.1% were other ethnicities. Of the female participants, 96.6% were Fars, 1.3% were Turkmen, 0.7% were Sistani, and 2.2% were other ethnicities. The data also indicated that 96.9% of males and 98 of females were Shia Muslims and 3.1% of males and 2% of females were Sunni Muslims. The percentage of support services showed that 6.1% of males and 6.2% of females were covered by the Relief Committee, 6.1% of males and 7% of females were covered by State Welfare, 36.4% of males and 36.8% of females were covered by health services, 33.3% of males and 34.7% of females were covered by Social Security, 0% of males and 0.9% of females were covered by military insurance, 0% of males and 2.1% of females were covered by complementary insurance, 6.1% of males and 4.2% of females were covered by other support organizations, and 12.1% of males and

Table 1. Distribution Frequency and Demographic Variables (%) Population.

Variables	N (%)
Gender	
Male	33 (17.8)
Female	152 (82.2)
Total	185 (100)
Residence	
Urban	33 (18.6)
Rural	144 (81.4)
Total	177 (100)
Marital	
Single	10 (5.4)
Married	114 (62)
Divorced	6 (3.3)
Widow	54 (29.3)
Total	184 (100)
Ethnicity	
Fars	173 (91.5)
Turkmen	3 (1.6)
Sestina	8 (4.2)
Other	5 (2.6)
Total	189 (100)
Education	
Illiterate	39 (20.5)
Primary	68 (35.8)
High school	41 (21.6)
Diploma	34 (17.9)
Upper diploma	6 (3.2)
BS	2 (1.1)
Total	190 (100)
Employment	
Unemployed	4 (2.1)
Employed	17 (1.9)
Full-time	8 (4.2)
Part-time	9 (4.7)
Housewives	125 (66.1)
Farmers	20 (10.6)
Retirees	6 (3.2)
Total	189 (100)
Organizations support services	
Relief committee	11 (6)
Welfare	3 (1.6)
Health care	68 (37)
Social security	65 (35.3)
Military	13 (7.1)
Complementary insurance	3 (1.6)
Other	8 (4.3)
Without	13 (7.1)
Total	184 (100)

Note. BS = Bachelor of Science.

Table 2. Mean Scores of QoL Seniors in Nursing Home in Golestan Province, Iran.

	M ± SD		
	Gender		
Scales	Female	Male	*p* value
Physical Functioning	50.26 ± 32.34	62.72 ± 20.84	.007
Mobility Restricts	38.65 ± 45.74	63.63 ± 38.57	.002
Emotional Problem	57.38 ± 45.32	82.32 ± 32.79	.001
Vitality	56.08 ± 17.66	66.81 ± 16.28	.001
Mental Health	57.13 ± 18.06	68.51 ± 16.15	.001
Social Functioning	63.89 ± 26.70	58.71 ± 15.77	.284
Bodily Pain	62.53 ± 22.18	69.24 ± 13.10	.096
General Health	55.51 ± 17.42	56.51 ± 8.61	.749

Note. QoL = quality of life.

and marital status had significant relationship with general health as a binary outcome (*p*s = .036 and .007, respectively; Tables 4, 5, 6, and 7). The remaining predictors of general health including sex, age, ethnicity, CPSC score, place of residence (urban/rural) did not show a significant association with outcome. The significant predictors were entered into multiple logistic regression, and its results are in Table 7. The odds ratio (OR) of being in general poor health for primary education was 1.91 (95% confidence interval [CI] = [0.88, 4.11]) and for high school was 3.04 (95% CI = [1.22, 7.58]) times that for those with diplomas or higher as the reference group. Married seniors had a significantly lower OR of general poor health compared with widowed or divorced seniors (OR = 0.42, 95% CI = [0.22, 0.78]).

Discussion

This study for the first time in Iran used the CPSC questionnaire to assess the safety of nursing homes and compared the results with those from the SF-36 questionnaire. It was found that, except for the social restrictions of general health, other aspects of QoL were significantly correlated with gender and indicate that males scored higher for QoL than did females. Results of this study were correlated with the more negative attitude of females toward their physical health. Rafati, Yavari, Montazeri, and Mehrabi (2004) showed that QoL had a significant correlation with gender, except in the physical dimension. Adib-Hajbaghery et al. (2009) also found clear connections between physical disability and gender and a higher rate of dissatisfaction in females. Gureje, Ogunniyi, Kola, and Afolabi (2006) also found that physical health led to reduced QoL in women, which may be the result of a greater incidence of chronic disabling diseases in women than in men. Abdollahi and Mohammadpour (2013), by contrast, found that women scored higher for vitality and had fewer physical limitations than men. Jafarzade Fakhari, Behnam Vashani, and Vahedian Shahroudi (2010) found significant differences only for physical

6.2% of females had no insurance (Table 1). Table 2 showed mean scores of QoL seniors with gender in nursing home for PF, MR, EP, V, and MH were significant (*p* < .05). Chi-square tests showed the relationship between dimensions of QoL with CPSC in nursing homes had significant relationship only (MR and VT; Table 3). Chi-square tests showed that level of education

Table 3. The Relationship Between Dimensions of QoL With CPSC in Nursing Homes in Golestan Province, Iran 2014.

CPSC	QoL				χ^2
	Good	Fair	Poor	Total	
Physical functioning					
Lower	32	35	0	67	0.556
Normal	24	21	1	46	
Hyper	39	36	3	78	
Total	95	92	4	191	
Mobility restricts					
Lower	60	49	0	109	0.004
Normal	0	8	1	9	
Hyper	37	35	3	75	
Total	97	92	4	193	
Emotional problems					
Lower	34	34	0	68	0.337
Normal	0	2	0	2	
Hyper	60	56	4	120	
Total	94	92	4	190	
Vitality					
Lower	18	6	0	24	0.054
Normal	42	51	1	94	
Hyper	37	35	3	75	
Total	97	92	4	193	
Mental health					
Lower	11	10	1	21	0.652
Normal	46	38	1	85	
Hyper	40	44	3	87	
Total	97	92	4	193	
Social functioning					
Lower	18	27	0	45	0.299
Normal	20	13	1	34	
Hyper	59	52	3	114	
Total	97	92	4	193	
Bodily pain					
Lower	12	19	0	31	0.434
Normal	32	24	1	57	
Hyper	53	49	3	105	
Total	97	92	4	193	
General health					
Lower	12	15	0	27	0.842
Normal	44	42	2	88	
Hyper	41	35	2	78	
Total	97	92	4	193	

Note. QoL = quality of life; CPSC = Consumer Product Safety Commission.

pain between men and women in Sabzevar, Iran. The dimensions of physical activity, physical limitations, and physical pain showed significant correlations with age, while other dimensions and age showed no significant relationship. Rafati et al. studied the QoL of residents of Kahrizak nursing home in Iran and found no significant relationship between age and QoL (Rafati et al., 2004). Abdollahi and Mohammadpour (2013) found a significant relationship between mental and

physical health with age. The present study found a significant relationship between education and the dimensions of physical functioning, social functioning, bodily pain, and general health. Rafati et al. observed a significant relationship between level of education and QoL. Haj-Bagheri et al. also found a significant relationship between education and QoL. The number of illiterate females in this study was 4 times that of the number of illiterate men, which may relate to the different scores for males and females versus scores for the four dimensions. Sajjadi and Beglarian (2007) found an inverse relationship between level of education and QoL, where QoL declined as level of education increased; however, they did not speculate on the reasons for this finding.

This present study showed a significant relationship between restricted mobility and emotional problems, vitality, bodily pain, mental health, and employment, but no significant correlation with the other aspects measured. Rafati et al. found only a significant relationship between overall health and physical functioning and employment. The present study found that, except for mental health and social functioning, other dimensions correlated significantly with marital status. Married seniors had better conditions than single, divorced, and widowed seniors. Haj-Bagheri found more severe and moderate disability in widows and single seniors than in married individuals. Kristianson et al. found higher rates of mortality and morbidity and higher levels of overall poor health in single individuals than in married individuals. They attributed this to higher levels of social relationships and activities in married seniors than unmarried ones (Kristjansson, Helliwell, Forbes, & Hill, 1999). The present study found that restricted mobility, mental health, social functioning, and general health were significantly associated with place of residence. Mobility and mental health and social functioning dimensions were better in a village than in a city, and social functioning and general health were better in cities than in villages. Studies have reported different results for these dimensions. Parahyba et al. found lower rates of disability in rural and suburban areas than in city centers. Allain et al. found increased disability in rural areas. It may be assumed that better physical and mental health in rural areas relates to the increased physical activity of the residents and decreased stress compared with urban life (Allain et al., 1997; Parahyba, Veras, & Melzer, 2005). In addition, the high scores for public health in urban areas than in rural areas relates to an increased feeling of safety in urban areas than in rural areas because of greater access to professional and ultraprofessional services. The difference between residents of rural and urban areas for social performance requires further research. The lack of a significant relationship between the dimensions of QoL with ethnicity (Fars, Turkmen, Sistani, other) and religion (Shia and Sunni Muslim) could indicate the equal and fair influence of factors affecting this dimension, such as access to social support, safety, and health. It should be noted that the

Table 4. Association Between the SF-36 Scores and Socio-Demographic Characteristics of the Study Sample.

	Employment M (SD)				
Scales	Unemployed with income	Housewives	Farmers	Retirees	*p* value
PF	58.33 (32.14)	48.47 (32.86)	63.18 (19)	60 (25.65)	.424
MR	33.33 (57.73)	35.53 (45.72)	86.36 (25.8)9	48.68 (45.24)	.031*
EP	50 (70.71)	52.50 (45.86)	84.84 (34.5)2	84.21 (37.46)	.005*
V	38.33 (27.53)	56.07 (17.21)	70 (16.73)	61.75 (18.15)	.018*
MH	42.66 (33.30)	56.69 (17.24)	73.09 (14.7)6	59.26 (19.58)	.005*
SF	41.66 (19.09)	63.32 (26.25)	68.18 (14.1)0	69.73 (29.26)	.561
BP	40 (12.99)	60.76 (22.19)	70.22 (10.75)	72.10 (21.62)	.007*
GH	56.66 (20.20)	54.21 (18.15)	57.27 (10.80)	59.73 (11.95)	835

Organizations support services

	Organizations support services	M	SD	CI	
				Lower	Upper
General health	Relief committee	40.90	17.58	29.09	72.52
	Welfare	51.66	10.40	25.81	77.52
	Health care	53.08	17.25	48.91	57.26
	Social security	59.44	12.26	56.40	62.48
	Military	67.69	14.08	59.18	76.20
	Insurance supplementary	70	8.66	48.48	91.51
	Other	60.62	9.42	52.74	68.50
	Total	55.97	15.96	53.64	58.29

Note. PF = physical functioning; MR = mobility restricts; EP = emotional problems; V = Vitality; MH = Mental Health; SF = Social functioning; BP = Bodily pain; GH = General Health; CI = confidence interval.
*Significance = *p* < .05.

Table 5. Distribution of General Health by Education in Golestan Province, Iran 2014.

	General health		
Education	Healthy	Unhealthy	Total
Primary			
N	59	48	107
%	55.1	44.9	100.0
High school			
N	18	23	41
%	43.9	56.1	100.0
≥ Diploma			
N	32	13	45
%	71.1	28.9	100.0
Total			
N	109	84	193
%	56.5	43.5	100.0

Note. χ^2 = 6.64; *df* = 2; *p* = .036.

Table 6. Distribution of General Health by Marital Status in Golestan Province, Iran 2014.

	General health		
Marital status	healthy	unhealthy	Total
Single			
N	4	6	10
%	40.0	60.0	100.0
Married			
N	75	39	114
%	65.8	34.2	100.0
Others			
N	30	39	69
%	43.5	56.5	100.0
Total			
N	109	84	193
%	56.5	43.5	100.0

Note. χ^2 = 9.87; *df* = 2; *p* = .007.

population and ethnicity of the city of Gorgan, which has traditionally been home to people of Farsi, Turkmen, Kurdish, Turks, Balochi, and Kazakhi descent and followers of both Shia and Sunni Islam for centuries, mean that the groups coexist peacefully. The results for this

area were not unexpected, but it is probably not accurate to generalize this finding to other parts of the country.

The results of the CPSC questionnaire, which was used for the first time in research in Iran, showed that the perception of safety of residence in 98% of cases was

Table 7. Logistic Results for General Health Outcome.

Outcome	B	SE	Significance	OR	95% CI for OR Lower	Upper
Marital status			.012			
Single	0.25	.71	.725	1.28	0.32	5.09
Married	−0.88	.32	.006	0.42	0.22	0.78
Others	—	—	—	1.00	—	—
Education			.058			
Primary	0.65	.39	.100	1.91	0.88	4.11
High school	1.11	.47	.017	3.04	1.22	7.58
≥ diploma	—	—	—	1.00	—	—

Note. SE = standard error; OR = odds ratio; CI = confidence interval.

moderate (47.7%) or good (50.3%). The study found that the CPSC results correlated significantly with residence for a moderate level of safety for nursing homes in rural areas and a good level of safety in urban areas. CPSC results also showed a significant relationship with level of employment. The results from the CPSC and SF-36 showed a significant relationship only between the CPSC and physical constraints.

Limitations of the Study

The present study found limitations in the ability of the seniors to understand the questions for the SF-36 questionnaire. The interviewers found they had to spend a high percentage of time explaining the questions to obtain an appropriate response.

Conclusion and Suggestions

The dimensions of QoL related to gender and relative higher scores of QoL for men than for women indicate that policymakers in the health sector should pay more attention to social factors affecting health, such as education, housing, and physical functioning. Because the illiteracy rate for women was higher than for men and because many of the women had been housewives (unpaid labor), women felt a lower sense of security than did men. The physiological and anatomical differences between women and men indicate the need to increase facilities for physical functioning for women more and eliminate the economic and social barriers to this in the short term. Restrictive measures such as the establishment of special parks for women in Golestan province or in other metropolitan areas are not appropriate strategies to address this deficiency. Some aspects of QoL were better in urban areas than in rural areas; it is more effective to provide health services to rural communities and to increase access to services by providing faster and more ambulances for rural areas to transfer patients to specialist services that are generally located in urban areas. Relating with different di- mensions of

(QOL) and age of participants, it is seen that with increasing age of the participants in terms of bodily pain, mobility restricts and mental health increases, attention to these issues and programs to improve their physical activities and specially their mental health. It is necessary for authorities to attend to these issues and develop programs to improve physical activity and mental health. Overall, this study and other studies suggest that aging alone does not particularly affect the dimensions of QoL especially for mental health. Other aspects of the lives of seniors, such as the functional dimensions of independence and a sense of control over life, have great effects on other dimensions.

Author Contributions

Fereshteh Farzianpour is the main author of this article. Fereshteh Farzianpour carried out the conceptual design of the study with Abbas Rahimi Foroushani. Abbas Badakhshan carried out the interviews and did the initial content analysis and the first draft of the article. Fereshteh Farzianpour, Abbas Rahimi Foroushani, Abbas Badakhshan, Mahin Gholipour, and Masoumeh Hosseini participated in the critical review of the article. All authors were involved in drafting and approving the final article.

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