

ARTICLE

THE RELATIONSHIP BETWEEN FEELING LONELINESS, AND ANXIETY AND LIFE SATISFACTION OF ELDERLY PEOPLE LIVING IN NURSING HOMES OF TEHRAN

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ABSTRACT

Background and objective: life satisfaction is an important variable and plays key role in the last years of people life. Feeling loneliness and anxiety are the most common problems in elderly people that it is correlated with life satisfaction. The objective of this study was to determine the relationship between loneliness and anxiety and life satisfaction of elderly people living in nursing homes in Tehran. **Methods:** In this descriptive-analytical study, population included all the elderly people living in nursing homes of Tehran in 2015, which 217 of them were selected randomly as sample of study. Demographic questionnaire, Yukla feeling loneliness questionnaire, geriatric anxiety scale, and Diener's life satisfaction scale were used as tools of study. The collected data were entered into SPSS and they were analyzed using Kolmogorov-Smirnov test, Pearson correlation, independent t-test, variance analysis, and regression analysis. **Results:** The mean and standard deviation of feeling loneliness, anxiety and life satisfaction were (23.31 ± 4.92) , (60.14 ± 12.86) and (11.32 ± 5.09) , respectively. Feeling loneliness with having meeting on a regular basis (P=0.02), anxiety with variable of education level (P=0.03) and chronic disease (P=0.03) and life satisfaction with age (P=0.04) had a significant relationship. In addition, feeling loneliness (r= -0.165) (P=0.008) and anxiety (r= -0.142) (P=0.029) had a significant relationship with life satisfaction and in total they predicted about 14% of life satisfaction. **Conclusion:** the elderly people living in nursing homes of Tehran nursing homes of Tehran nursing homes to pay more attention on reducing their feeling loneliness and anxiety by increasing their life satisfaction level.

INTRODUCTION

The aging population is the phenomenon discussed in recent years in the global health and well-being area [1] so that some of the communities are faced with it and some others will be faced with it in near future [2] . Aging in many countries starts usually from retirement age according to regulations (60-65 years old) [3]. In general, the likelihood of being affected with diseases and the incidence of disabilities in the last years of life increase as age goes up [4]. According to studies, the prevalence of disability is high among the elderly people [5] and they are more prone to harms and injuries compared with other age groups [6]. The domestic reports indicate that Iran experience a transition from young population to middle-aged population and it will join to countries with old population composition in near future [7, 8]. Considering rapid increase in elderly people population in Iran [9, 10] providing welfare and health for them has found newer and more extensive dimension [11] and paying attention to the issues and needs of this sensitive stage of life has become a social requirement [12]. Life satisfaction is an important factor in raising the people's welfare [13]. Life satisfaction in elderly people can be achieved by individual accesses to important sources of life. These key resources are effective in maintaining and advancing the well-being of the elderly people. In other words, these resources can help elderly people in meeting their basic needs [14]. Those who are at the aging and disability age often experience several problems that these factors and conditions affect their life satisfaction [15, 16]. In this regard, the effect of feeling loneliness and anxiety has great importance [17]. Feeling loneliness is the core of many affective disorders [18] and anxiety disorders are the most common problems of elderly people [19]. Elderly people are more prone to feeling loneliness and anxiety due to several reasons [6, 20, 21]. Loneliness and anxiety have negative effects on health, well-being, and quality of life of individuals [22-25]. Evidence shows that feeling loneliness is a comprehensive and common phenomenon so that 25 to 50 percent of the over 65 years old population experiences it [17]. The prevalence of anxiety in the elderly people is estimated between 3 and 14 percent [26] and it is estimated 23.5 percent in Iranian elderly people [27]. The literature review, there are scattered and sometimes contradictory studies about feeling loneliness, anxiety and life satisfaction of elderly people. Kucheki et al showed significant relationship between loneliness and life satisfaction [28], but Hojjati et al in their study did not repot relationship between feeling loneliness and life satisfaction [29]. Investigation of life

KEY WORDS

life satisfaction, feeling loneliness, anxiety, elderly people, nursing homes for elderly

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*Corresponding Author Email: f.mohammadi@uswr.ac.ir satisfaction of the elderly people and its related factors is an action for evaluating the effectiveness of providing health care services, including nursing services to them. In addition, paying attention to the behavior promoting the health and life satisfaction is an important issue that reduces health care costs, including nursing care costs [12, 30]. Considering the existing research gap, if the relationship between feeling loneliness and anxiety in the elderly people and their life satisfaction is confirmed, results of the study can be used to reduce the feeling loneliness and anxiety of elderly people by designing and implementing the interventions, and consequently increase their life satisfaction. In this regard, some experts believe that any attempt that helps reduce feeling loneliness and anxiety of elderly a dam against the wave of complex psychosocial and social problems of the elderly people and it will improve the self-esteem and life satisfaction of them [21]. Therefore, the main objective of the researchers in this study was to determine the relationship between feeling loneliness and anxiety and life satisfaction of the elderly people living in nursing homes of Tehran. We hope that results of this study expand our knowledge in these areas. In addition, findings of the study could be helpful for planners and officials who are in charge of providing aging services, especially nurses providing care and service for elderly people.

MATERIALS AND METHODS

In this descriptive-analytic study that was conducted by using cross-sectional method, population consisted of elderly people living in nursing homes of Tehran in 2015. The following formula was used to calculate the sample size:

$$n = \frac{\left(\sigma_{1}^{2} + \sigma_{2}^{2}\right)\left(Z_{1-\alpha_{2}} + Z_{1-\beta}\right)^{2}}{\left|\mu_{1} - \mu_{2}\right|^{2}}$$

Formula 1- sample size

To obtain the sample size using a pilot study, 30 elderly people were studied that mean and standard deviation of the variables of life satisfaction and feeling loneliness in these 30 elderly people were obtained as followed:

According to the results of the pilot study, and the use of a significant level of power of, sample size was estimated to be 217 subjects. Simple sampling method was also used in this study. Sampling was conducted from all nursing homes of elderly people proportional to number of elderly people in each nursing home. In addition, the ratio of men and women was according to their number in each nursing home. The inclusion criteria were: 1-the age of 60 years and higher, 2- Staying in the elderly people nursing home (for a period of at least three months), 3-ability to communicate, 4- the lack of obvious cognitive impairment (based on the content of patient file and medical team information), 5 non-acute physical problems, and 6- willingness to participate in the study. The tools used for the implementation of this research include four questionnaires as follows:

The Demographic questionnaire including the information of age, gender, marital status, education level, length of staying in nursing home, the existence of chronic disease, the number of medicines used, having a meeting on a regular basis, and the history of the departure from home by family for recreational or party.

Yukla feeling loneliness questionnaire: The questionnaire has 8 items assessing the feeling loneliness of individuals. The scale of measurement is in the form of four-point Likert from never (score 1) to always (score 4). Accordingly, minimum and maximum score in this questionnaire is 8 to 32, respectively. The total score of 8 to 20 in this questionnaire indicates low feeling loneliness and score of 21 to 32 indicates high feeling loneliness. Wua et al reported that this tool is reliable to measure feeling loneliness and they obtained its Cronbach's alpha coefficient 0.84 [31]. Kucheki et al translated this questionnaire from English language to Persian language, and then its Persian form was translated again to English language by two English language experts. After revising its gaps in one study conducted on elderly people of Gorghan and Ghonbad, its Cronbach's alpha coefficient was reported 0.89 [28]. In this study, to evaluate the reliability of the questionnaire, Cronbach's alpha was used and its value was obtained 0.86 that indicates high reliability of the questionnaire.

Geriatric Anxiety Scale: This scale was developed by Sigal et al and it consists of 30 questions. This scale was developed in four-point Likert of never, sometimes, most of the time, and always in which zero and never to always score 3 is intended. Thus, the score the questionnaire range between zero is given for never and score 3 is given for always. Accordingly, the scoring range of the scale is from zero to 90. Total score between 0 and 45 indicates the low anxiety and score between 46 and 90 indicates the high anxiety. According to questionnaire guideline, elderly people were asked to score each question according to their feeling in the past week [32]. Bolghanabadi et al in the research on 295 Iranian elderly people evaluated the validity of the questionnaire high and obtained its reliability 0.92 using Cronbach's alpha [33]. Rashidi et al in an investigation on elderly anxiety living in Hamadan used this tool and evaluated its psychometric characteristics desired [34].

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Diener's life satisfaction questionnaire: This questionnaire has five items assessing the life satisfaction of people by a 7-point Likert scale from completely disagree (score 1) to completely disagree (score 7). The scores range is from 5 to 35. Total score from 5 to 20 represents the low life satisfaction and total score of 21 to 35 suggests high life satisfaction. Dainer et al reported retest correlation coefficient of this scale scores 0.82 and its Cronbach's alpha 0.87 [35]. Bayani et al in a study on elderly people translated this scale into Persian language and calculated its reliability 0.69 and they reported that this scale is a reliable and valid tool to be used in psychological studies of elderly people [36].

For the implementation of this study after approval of the proposals, and the approval of the Ethics Committee of the University (number of IR. USWR. REC. 1395.16), and obtaining the necessary permits and coordination with officials of the nursing homes, the inclusion criteria were examined and sampling was conducted accordingly. After obtaining the informed consent of the samples, questionnaires of research were provided for them. Questionnaires were in the form of self-reporting and they were responded by elderly people, unless they were illiterate and low literate or not able to fill it. In such cases, questionnaires were collected by interview. If understanding some of the concepts and the tool questions was difficult for them, researcher tried to explain them in simple words and if there was ambiguity, more explanation were asked to clarify the response. Subjects of study had full authority to refuse participating in the study at any time, and in the case defect in completing the questionnaire (defect in information), the questionnaire was excluded from study (exclusion criteria). After collecting the questionnaires, data were entered to SPSS software (version 20) and they were analyzed through central indices and dispersion of descriptive statistics including frequency, percentage, mean and standard deviation and inferential statistics tests such as Kolmogorov-Smirnov test, Pearson correlation test, variance analysis and regression analysis. In all tests, the level of significance was considered less than 0.05.

RESULTS

In this study, 217 elderly people aged 60 to 95 years with a mean age of 87.66 ± 11.78 participated. The mean duration of their stay in nursing homes was 36.20 ± 30.36 months that the minimum duration was 3 months and maximum duration was 85 months. In addition to demographic characteristics of samples, the mean and standard deviation of study variables are presented in [Table 1]. The results of this table show that the mean and standard deviation of feeling loneliness, anxiety and life satisfaction were respectively (23.31 ± 4.92) , (60.14 ± 12.86) and (11.32 ± 5.09) . In addition, investigating the difference significance of means in variables of gender, chronic disease, and having meeting on regular basis, and the experience of departure from home by family for party and recreation, independent t-test was used, and variance analysis was used for marital status, education level, and number of drugs take, and Pearson correlation test was used for variables of age and duration of staying in nursing home in this regard. P values were reported in each case (Table 1). The results of this table show that feeling loneliness had significant correlation with having meeting on regular basis (p=0.02), anxiety has significant correlation with variables of education level (P=0.03) and chronic disease (P=0.03), and life satisfaction had significant correlation with age (P=0.04). Kolmogorov-Smirnov test was used to assess the normality of variables and it was determined that all variables are normally distributed (P>0.05). To evaluate the correlation between variables, Pearson test was used that findings are presented in [Table 2]. According to findings, feeling loneliness (r= -0.165) (P=0.008) and anxiety (r= -0.142) (P=0.029) had a significant inverse relationship between life satisfaction. To evaluate the explanatory power of the predictor variables (feeling loneliness and anxiety), stepwise multiple regression model was presented that its findings are presented in Table 3. Findings of this table show that about 14% of changes in dependent variable (life satisfaction) are explained by two variables of anxiety and feeling loneliness and share and role of anxiety is more than the variable of feeling loneliness in explaining the life satisfaction.

DISCUSSION AND CONCLUSION

The aim of this study was to determine the relationship between feeling loneliness and anxiety and life satisfaction of elderly people living in nursing homes of Tehran in 2015. Based on the findings of the study, feeling loneliness was high in elderly people. The Kucheki et al reported the loneliness of elderly people living in Ghorghan and Ghonbad high [28], which it is in line with result of the current study. In contrast, Sheikholeslami et al reported the feeling loneliness among the retired employees of Gilan University of Medical Sciences in Rasht low [37], which it is in contrast with finding of this study. According to research findings, females had more feeling loneliness compared to males, while this difference was not significant. Another study showed that female elderly people are more prone to feeling loneliness. In studies conducted by Sheikholeslami et al [37], Jakobsson and Hellberg, and Ekwall et al, the feeling loneliness was higher in females compared to males. In contrast, the study conducted by Hazer and Boylu, contradictory results were obtained since the feeling loneliness in males was higher than that in females.



 Table 1: Demographic characteristics of samples, mean, and standard deviation of study

 variables

			f	Feeling loneliness		Anxiety		Life satisfaction		
		n	%	SD ±mean	Р	SD ±mean	Р	SD ±mean	Р	
					valu		valu		valu	
Gender	Female	144	66.4	24.77±4.64	e 0.57	63.17± 11.86	е 0.32	11.17±5.02	е 0.55	
	Male	73	33.6	22.03±4.40	0.01	58.56±12.36	0.02	12.56±5.36	0.00	
Marital status	Single	46	21.3	23.61±4.39	0.18	61.61±12.39	0.17	10.61±5.22	0.58	
	Spouse died Divorced	119 32	54.8 14.7	25.88±4.69 23.37±4.21		62.47±14.69 64.45±10.21		9. 47±5.19 10.45±5.45		
	Married	32 20	9.7	23.37±4.21 21.65±4.46		55.78±12.46		10.45±5.45		
		20	0.11			00110212110				
Age group	60 to 70	50	23.0	21.24±4.63	0.22	55.63±10.63	0.32	14.63±5.63	0.04	
	years 70 to 80	40 103	18.4 47.5	24.77±4.54 23.68±4.52		59.11±11.54 60.02±10.52		12.11±5.54 10.02±4.52		
	vears	24	47.5	23.96±4.63		67.86±12.63		8.86±4.63		
	80 to 90									
	years									
	Over 90 years									
Education level	Illiterate	99	45.6	25.74±4.38	0.14	64.74±12.38	0.03	9.74±5.38	0.26	
	Secondary school	76 27	35.1 12.4	23.71±4.64		62.71±11.64		10.71±4.64 11.33±5.00		
	High school	27 15	12.4 6.9	22.33±4.00 21.53±4.30		59.33±11.00 54.53±12.30		12.53 ± 3.00		
	Academic		0.0			0				
Duration of saying in	Less than 12	72	33.2	23.78±4.59	0.25	66.14±11.59	0.11	10.14±4.59	0.36	
nursing home	months 12 to 36	82 20	37.8 9.2	21.79±4.64 21.85±4.42		56.74±12.64 65.54±11.42		12.74±4.57 11.54±5.02		
	months	43	9.2 19.8	24.11±4.48		58.12±12.48		9.12±5.08		
	36 to 60									
	months Over 60									
	months									
Chronic disease	Yes	157	72.3	23.78±4.59	0.51	66.78±11.59	0.03	10.78±4.79	0.44	
	No	60	27.7	21.79±4.64		5179±12.64		12.02±5.64		
Number of drugs	Does not	72	33.2	23.48±4.41	0.34	58.04±12.41	0.36	13.01±6.01	0.21	
taken	take 1-2 drugs	82 43	37.8 19.2	22.79±4.98 21.75±4.47		62.11±11.98 61.65±11.47		11.45±6.13 9.76±5.47		
	2-5 drugs	20	9.8	24.14±4.71		64.36±11.71		8.14±5.04		
	Over 5 drugs									
Having meeting on	yes	110	50.6	18.97±4.14	0.02	59.21±12.14	0.30	12.04±5.74	0.09	
regular basis	no	107	49.4	27.14±4.78		61.07±12.78		9.89±5.03		
The experience of	Yes	128	58.9	21.45±4.73	0.12	57.15±11.73	0.19	11.45±5.73	0.58	
departure from	no	89	41.1	24.89±4.74		64.74±12.74		11.11±5.74		
nursing home for party or recreation										
Total	-	217	100	23.31±4.92	-	60.14±12.86	-	11.32±5.09	-	

 Table 2: Correlation between feeling loneliness and anxiety and life satisfaction by the Pearson correlation

 Test

Variable		Life satisfaction					
	Correlation	P value	Determination	Adjusted correlation	Error SD		
	coefficient		coefficient	coefficient			
Feeling loneliness	-0.165	0.008	0.032	0.028	14.95		
Anxiety	-0.142	0.029	0.130	0.126	14.17		

 Table 3: Results of stepwise regression of life satisfaction according to feeling loneliness and anxiety in elderly people

I		Predictor variables	В	β	t	R	R^2	adjusted R ²	R ² changes	Р
										value
ſ	1	Anxiety	1.368	0.361	5.677	0.361	0.13	0.126	0.130	0.000
							0			
ſ	2	Anxiety	1.296	0.342	5.355	-	-	-	-	0.000
		Feeling loneliness	-1.238	-0.128	-2.01	0.383	0.14	0.138	0.016	0.046
		-					6			

Other research finding was that elderly people whose spouse has died had high level of loneliness and divorced and single elderly people were placed at next ranks. In addition, married elderly people had the lowest level of loneliness, while these differences were not significant. According to results of study conducted by Sheilkholeslami et al, married elderly people had lower level of feeling loneliness compared so single and divorced elderly people [37]. In fact, death of spouse and lack of intimate friend were main indicators of feeling loneliness in elderly people [39]. According to the results of other research, elderly people aged 71-80 years had the highest rate of loneliness. In contrast, elderly people aged 60-70 years had the lowest rate of loneliness. Generally, in this study, loneliness raised as age increased. However, significant relationship was not found between age and feeling loneliness. The study of Hazer and Boylu showed that with increasing age, feeling loneliness increases in elderly people [40]. In fact, aging is associated with many changes in elderly people social life that provides the condition for creation of loneliness [38]. According to other research findings, the elderly people who were illiterate had the highest rate of feeling loneliness and by increasing educational level, feeling loneliness decreases, so that elderly people with academic education had the lowest level of feeling loneliness, but the difference in various groups was not significant in terms of education level. It was also found that elderly people who stayed at nursing homes for 12-36 months had the lowest level of feeling loneliness and those who stayed at nursing home over 60 months had the highest level of feeling loneliness. The other finding of the study showed that elderly people with chronic disease feel significantly more loneliness. However, a significant relationship was not between loneliness and staying at a nursing home or chronic disease.

Another finding of the research was that elderly people who had meeting regularly had significantly lower loneliness. In addition, elderly people who went with his family to a party or recreation had lower level of loneliness, while this difference was not significant. Based on the findings of the Sheikholeslami et al, elderly people who have fewer interactions and those who were unemployed had higher level of loneliness, and those had higher social and emotional support experienced lower level of loneliness [37]. According to some researchers, one factor that can reduce the loneliness is frequent contact with children and relatives. Elderly people who have a weak social network do not receive sufficient support and emotional satisfaction, and they feel loneliness highly [40]. Peplaou considers the feeling loneliness as unpleasant feeling caused due to problem in social relations of the person and lack of access to desired relations with others [41]. Therefore, more contacts with general and vocational centers and use of its facilities expand the communicative network of elderly people, leading to reduced loneliness.

Based on the findings of the study, the anxiety of elderly people is high. Vassiliadis et al [42], Rashedi et al in a study on elderly people living in Hamadan [34] and Alipour et al in a study on elderly people living in Distract 2 of Tehran [43] reported high anxiety in the elderly people and obtained similar results. On the other hand, Alizadeh et al reported the anxiety in elderly people who are under coverage of Shahid Beheshti University of Medical Sciences at moderate level [44]. Etemadi et al reported the anxiety of elderly people living in nursing homes at lower level [45] that it was not in line with finding of this study. The difference could be due to different population and sample volume, different assessment tools or different living place of elderly people (home / nursing home). In the present study, females were more anxious than males, although this difference was not statistically significant. Alizadeh et al [44], Rashedi et al [34] and Pachana et al [19] reported that anxiety in females is higher than that in males and they found consistent results. In addition, single people had the lowest anxiety level, followed by married and widowed people, Divorced elderly people had the highest level of anxiety, while the difference between different groups was not significant in terms of marital status. In the study conducted by Alizadeh et al, findings suggested that married people have worse condition compared to single people [44] that it is in line with the findings of this study. On the other hand, in the research conducted by Mobasheri and Moazezzi in elderly people in Semnan, it was found that married people ha d better conditions [46]. This inconsistency may be due to differences in living place of elderly people (home / nursing home), the structure of urban life, rural or metropolitan areas, or the impact of income and employment. Conducting applied research in future to explore these differences is recommended. In the present study, the age group of 60-70 years had the lowest levels of anxiety, followed by age groups of 71-80 years, 81-90 years, and above 90 years. Accordingly, anxiety increased as age increased, while significant relationship was not found between anxiety and age. In two different studies conducted in Semnan, similar findings were obtained [47, 48]. The results of Alizadeh et al showed that up to 80 years of age, anxiety increases with increasing age, and after 80 years of old, anxiety decreases [44]. In the current study, illiterate people had the highest level of anxiety, and by increasing the education level, anxiety decreased significantly. In a study conducted by Alizadeh et

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al. the education level of elderly people was effective on anxiety, so that elderly people with high school and higher education level had lower anxiety, while illiterate and low literate people had undesired situation, which this result was in line with result of our study. This result seems to be reasonable, since highly educated people have greater access to information resources in each area, that this issue affects the rate of learning, strengthening of skills and changing the behavior of people. The results of a study conducted by Alizadeh on Iranian elderly people living in country of Australia also revealed the same results [49]. In the present study, elderly people who have less than 12 months of experience in staying nursing homes have the highest level of anxiety. However, the significant relationship was not found between anxiety and length of staying in nursing home. This is probably due to a change in the living place of elderly people from home to nursing home. Elderly people had 37 to 60 months, over 60 months and 12 to 30 months of experience of staying at nursing homes placed at next ranks. It seems after spending the first year in nursing home, elderly people are adopted more with a new environment and their anxiety and stress decrease. However, other factors are involved in increase of their anxiety again. In addition, findings of other study showed that elderly people who had chronic disease had higher anxiety compared to those who had no chronic disease. Elderly people who had meeting regularly or those who were going party and recreation with their family had lower anxiety, that difference of none of them was significant. In explaining these findings, it could be stated that the family is the most important source of support and interpersonal relations that can reduce anxiety in elderly people by providing adequate support [50]. According to the findings, life satisfaction of elderly people was at the lower level. Niknami et al in a study on elderly people who were member of retirement centers in Rasht [51] and Inal et al in a study on elderly people living in nursing homes reported their life satisfaction at low levels. Their results are in line with results of the current study. Aging is naturally associated with changes in body function, disease and disability and these conditions can affect their life satisfaction. In this study, the married elderly people had the highest life satisfaction, followed by unmarried and divorced elderly people, and those whose spouse were dead, although these differences were not significant. In this study conducted by Kudo et al [53] and Park and Kim [54], married elderly people had higher satisfaction with life. According to Liu, loneliness in elderly people decreases life satisfaction and the elderly people who live alone (single / divorced / widowed) have lower life satisfaction [55].

Other result of study suggests that elderly people aged 60-70 years had the highest life satisfaction and age groups of 71-80 years old, 81-90 years old and above 90 years old placed at next ranks. With increasing age of the elderly people (older age groups) life satisfaction significantly reduced. In the studies conducted by Borge [56] and Kudo et al [53], the younger elderly people (aged 65 to 74 years) had higher satisfaction with life. It seems that multiple disorders of elderly people that increase as age goes up to affect the status of elderly people, which may result in lower levels of life satisfaction. In the current study, elderly people who had academic level of education had the highest level of life satisfaction, followed by elderly people who had high school, secondary school education level, and illiterate people, respectively. In studies conducted by Kudo et al [53] and Kucheki et al [28], it was found that elderly people with higher education had higher level of life satisfaction. In this regard, Sung believes that increasing level of education is associated with more active participation for healthy lifestyle [57], which this factor causes an increase in life satisfaction in elderly people. Results of another study revealed that males had higher life satisfaction compared to females. The elderly people stayed 12-36 months in nursing homes had the highest life satisfaction, followed by those who stayed in nursing homes for 37-60 months, less than 12 months, and over 60 months, respectively. On the other hand, elderly people who had meeting on regular basis, and those who were going for party and recreation with their family had higher life satisfaction, but the differences were not significant. Another finding showed that loneliness in the elderly people has a significant relationship with satisfaction with life. The research conducted by Kucheki et al showed significant relationship between loneliness and life satisfaction [28] which it is consistent with the findings of this study. In explaining this finding, it can be noted that loneliness weakens social interactions of people and it affects their health and quality of life. leading to lower life satisfaction [23, 50, 58]. According to other research findings, the anxiety level of elderly people had a significant relationship with their anxiety. Despite multiple searches in databases, a similar study to report this relationship was not found. In Iranian culture, family and interpersonal relationships are the most important support resources that can reduce the anxiety of elderly people by providing adequate support [50]. It seems that change in living environment of elderly people from home to nursing home, new conditions are created for the elderly people. Change to new situation is associated with tensions that create or increase the anxiety of the elderly people. It could be concluded that loneliness and anxiety of elderly people living in nursing homes of Tehran were higher and their life satisfaction was undesired, and the significant correlation was found between feeling loneliness, anxiety, and life satisfaction of elderly people. In addition, the relationships between feeling loneliness and having regular meeting, and the relationship between anxiety and education level and the relationship between chronic disease, life satisfaction, and age were confirmed. According to this conclusion, it is recommended for officials (considering the growth in population of elderly people) to consider specialized counselors in order to improve their mental health and increase their social relations by providing appropriate plans. Health care providers, especially geriatric nurses, should obtain knowledge of mentalities and beliefs of elderly people and identify the harmful situations by establishing continuous and intimate relations and communications with elderly people to prevent situations that lead to feeling loneliness and anxiety. It is recommended that increased awareness of the elderly people families and encouraging them to establish increasing relation and communication with elderly people to be included in the plans to improve the elderly people interactions. In addition, findings of this study can be used in designing educational plans developed by nursing care providers. The most important limitation of the study is that it is cross-sectional type of study, so results of this study cannot be generalized to all elderly people.

CONFLICT OF INTEREST There is no conflict of interest.

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REFERENCES

- Mohammadi F, Dabbaghi F, Nikravesh M. [2008] [Facilitator and barriers factors in family caregiving process of Iranian frail elderly: qualitative study]. Iran Journal of Nursing. 21(55):55-65. (Persian)
- [2] Khoshbin S. [2010] [Active and healthy ageing and aged care strategy in the eastern mediterranean region]. Tehran, World Health Organization Regional Office for Eastern Mediterranean: Mezrab.(Persian)
- [3] Young HM, Cochrane BB. [2005] Health aging for older women. Nurs clin North Am. 39(1):13113-3.
- [4] Alipoor F, Sajjadi M, Amina F, Biglaryan A, Jalilian A. [2009]
 [District 2 of Tehran elderly quality of life]. Salmand. 3(9-10):75-83. (Persian)
- [5] Shahbazi MR, Mirkhani M, Hatamizadeh N, Rahgozar M. [2009] [Evaluation of disability in Tehran elderly]. Salmand. 3(9-10):84-92. (Persian)
- [6] Hindle A, Coates A, Kingston P. [2011] Nursing care of older people. New York: Oxford University Press.
- [7] Sharifzadeh GH, Moudi M, Akhbari SH. [2013] [Investigating health status of older people supported by Imam Khomeini Committee]. Iranian journal of ageing. 3(7):52-60. (Persian)
- [8] Ahmadi V, Beheshti SS. [2008] [Demographic characteristics and welfare of elderly people in Iran]. J popul. 16(61-62):19-38. (Persian)
- [9] Hojjati H, Sharifnia SH, Hassanalipour S, Akhonzadeh G, Asayesh H. [2012] [The elder of reminiscence on the anount of group self esteam and life satisfaction of the eldery]. Bimonthly Urmia Nursing Midwifery. 9(5):350. (Persian)
- [10] Malek-Afzali H, Baradaran-Eftekhary M, Hejazi F, Khojasteh T, Tabrizi R, Faridi T. [2007] [Social mobilization for health promotion in the elderly]. Hakim Research Journal. 9(4):1-6. (Persian)
- [11] Habibi A, Nikpour S, Seyedoshohadaei M, Haghani H. [2006][Health promoting behaviors and its related factors in elderly]. Iran Journal of Nursing. 19(47):35-48. (Persian)
- [12] Masoudi R, Soleimani MA, Hasheminia AM, Qorbani M. [2010] [The effect of family centered empowerment model on the quality of life in elderly people]. Journal of Qazvin University of Medical Sciences. 1(14):57-64. (Persian)
- [13] Melendez J, Tomas J, Oliver A, Navaro E. [2009] Psychological and physical dimensions explaining life satisfaction among the elderly: a structural model examination. Arch Gerontol Geriatr. 48:291-5.
- [14] Bi-Shop A, Martin P. [2006] Happiness and congruence in older adulthood: a structural model of life satisfaction. Aging and mental Health. 10:445-53.
- [15] Chang S, Crogan N, Wung S. [2007] The self-care selfefficacy enhancement program for Chinese nursing home elders. Geriatr Nurs. 28(1):31-6.
- [16] Subasi F, Hayran O. [2005] Evaluation of life satisfaction index of the elderly people living in nursing homes. Arch Gerontol Geriatr. 41:23-29.
- [17] Chiang KJ, Chu H, Chang HJ, Chung MH, Chen CH, Chiou HG, et al. [2009] The effect of reminiscence therapy on psychological well-being, depression, and loneliness among the institutionalized aged. journal of geriatric psychiatry. 25(4):380-388.
- [18] Sheibani Tezerji F, Pakdaman SH. [2010] [Effect of music therapy, reminiscence and performing enjoyable tasks on loneliness in the elderly]. Journal of applied psychology. 4(3):55-68. (Persian)

- [19] Pachana NA, Byrne GJ, Siddle H, Koloski N, Harley E, Arnold E. [2007] Development and validation of the geriatric anxiety inventory. International Psychogeriatrics. 19(1):103-114.
- [20] Riahi A. [2009] [Comparative study of the position and status of elderly people in the past and contemporary societies]. Salmand, Iranian Journal of Ageing. 3(9-10):9-21. (Persian)
- [21] Hemati Alamdarlo G, Dehshiri GH, Shojaee S, Hakimirad E. [2008] [Health and loneliness status of the elderly living in nursing homes versus those living with their families]. Salmand, Iranian Journal of Ageing. 3(8):557-68. (Persian)
- [22] Fakhar F, Navabinejad SH, Foroughan M. [2008] [The role of group counseling with logo-therapeutic]. Iranian journal of ageing. 3(7):58-67. (Persian)
- [23] Henrich M, Gullone E. [2006] The clinical significance of loneliness: a literature view. Clinicial Psychology Review. 26(6):695-718.
- [24] Rezaei S, Mahshid M. [2008] [Comparative study of mental disorders in elderly nursing home residents in nursing homes in Tehran]. Iranian Journal of Ageing. 3(7):16-25. (Persian)
- [25] Vinik BH. [2005] Psychiatric mental health aspects. In: William R, Mutran E, Kity K, editors. Clinical aspects of aging. Baltimore: Lippincott Company.
- [26] Wolitzky-Taylor KB, Castriotta N, Lenze EJ, Stanley MA, Craske MG. [2010] Anxiety disorders in older adults: a comprehensive review. Depression and Anxiety. 27(2):190-211.
- [27] Rahgozar M, Mohammadi M. [1999] [Feelings of anxiety, depression, and anxiety in the elderly]. Hakim Medical Journal. 2(2):103-13 (Persian)
- [28] Koochaki G, Hojjati H, Sanagoo A. [2012] [The relationship between loneliness and life satisfaction of the elderly in Gorgan and Gonbad cities]. Journal of Research Developement in Nursing & Midwifery. 9(1):61-8. (Persian)
- [29] Hojjati H, Hojjati H, Sharfnia H, Salmasi E, Hossein-zadeh E, Farhadi S. [2012] [Comparison of loneliness, belonging and life satisfaction in the elderlies living at home with the nursing home residents]. Journal of health & Care. 14(3):9-15. (Persian)
- [30] Habibi-Sola A, Nikpour S, Seyedshohadiei M, Haghani H. [2008] [Health promotion behaviours and quality of life among elderly people: a crosssectional survey]. Journal of Ardabil University of Medical Sciences. 8(1):29-36. (Persian)
- [31] Wua C, Yao G. [2008] Psychometric analysis of the shortform UCLA loneliness scale (ULS-8) in Taiwanese undergraduate students. Personality and Individual Differences. 44(8):1762-71.
- [32] Segal DL, June A, Payne M, Coolidge FL, Yochim B. [2010] Development and initial validation of a self-report assessment tool for anxiety among older adults: the geriatric anxiety scale. Journal of Anxiety Disorders. 24(7):709-14.
- [33] Bolghan-Abadi M, Segal DL, Coolidge FL, Gottschling J. [2013] Persian version of the geriatric anxiety scale: translation and preliminary psychometric properties among Iranian older adults. Aging & Mental Health. 17(7):896-900.
- [34] Rashedi V, Gharib M, Rezaei M, Yazdani AA. [2013] [Social support and anxiety in the elderly of Hamedan, Iran]. Rehabilitation. 14(1). (Persian)

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- [35] Diener ED, Emmons R, Larsen R, Griffin S. [1985] The satisfaction with life scale. Journal of personslity assessment. 49(1):71-5.
- [36] Bayani AA, Koocheky AM, Goodarzi H. [2007] [The reliability and validity of the satisfaction with life scale]. Journal of Iranian Psychologists. 3(11):259-60. (Persian)
- [37] 37. Sheikholeslami F, Reza Masouleh Sh, Khodadadi N, Yazdani MA. [2011] [Loneliness and general health of elderly]. Holistic Nursing & Midwifery. 21(66):28-34. (Persian)
- [38] Jakobsson U, Hellberg IR. [2005] Loneliness, fear and quality of life among elderly in Sweden: a gender perspective. Aging Clin EXP Res. 17(6):494-501.
- [39] Ekwall S, Hellberg. [2005] loneliness as a predictor of quality of life among older caregivers. J Adv Nurs. 49(1):23-32.
- [40] Hazer O, Boylu AA. [2010] The examination of the factors affecting the feeling of loneliness of the elderly. Procedia Social and Behavioral Sciences. 9:2083-2089.
- [41] Peplau LA. [2007] Perceived dimensions of attribution for loneliness. Journal of Personality and Social Psychology. 43:929-936.
- [42] Vasiliadis H-M, Dionne P-A, Préville M, Gentil L, Berbiche D, Latimer E. [2013] The excess healthcare costs associated with depression and anxiety in elderly living in the community. The American Journal of Geriatric Psychiatry. 21(6):536-548.
- [43] Alipour F, Sajadi H, Forouzan A, Nabavi H, Khedmati E. [2009] [The role of social support in the anxiety and depression of elderly]. Iranian Journal of Ageing. 4(1):53-61. (Persian)
- [44] Alizadeh M, Hoseini M, Shojaizade D, Rahimi A, Arshinchi M, Rouhani H. [2012] [Anxiety, deppression and psychological wellbeing status among urban older adults under the cover of shahid beheshti university of medical sciences at Tehran]. Salmand. 7(26):66-73. (Persian)
- [45] Etemadi A, Ahmadi K. [2010] [The survey of concerns and psychological disorders in elderly sanatorium]. The Journal of Qazvin University of Medical Sciences. 14(1):71-77. (Persian)
- [46] Mobasheri M, Moezzi M. [2010] [The prevalence of depression among the elderly population of Shaystegan and Jahandidegan nursing homes in Shahrekord]. Journal of Shahrekord University of Medical Sciences. 12(2):89-94. (Persian)
- [47] Motamedi Shalamzari A, Ezhehei J, Azad Falah P, Kiamanesh AR. [2001] [The role of social support in life satisfaction, health and loneliness in elderly people]. Journal of Psychology. 6(22):133-15. (Persian)
- [48] Saberian M, Hajiaghajani S, Ghorbani R. [2003] [Study of mental status of the elderly and its relationship with leisure time activities]. Journal of Sabzevar University of Medical Sciences. 10(4):53-60. (Persian)
- [49] Alizadeh M. [2008] Assessing health factors and utilization of aged care services in Iranian elderly in metropolitan Sydney. PhD thesis, Sydney: The Sydney University.
- [50] Hemati-Alamdarlo G, Dehshiri GH, Shojaee S, Hakimirad E. [2008] [Health and loneliness status of the elderly living in nursing homes versus those living with their families]. Salmand, Iranian Journal of Ageing. 3(8):557-68. (Persian)
- [51] Niknamy M, Namjoo A, Baghaee M, Atrkar Roshan Z. [2009] [Survey the relationship between life satisfaction and health behaviors in elderly people referring to active retire mental centers]. Journal of Guilan University of Medical Sciences. 19(73):46-54. (Persian)
- [52] Inal S, Subasi F, M Ay S, Hyran O. [2007] The links between health related behavior and life satisfaction in elderly individuals who prefer institutional living. Biomed Central. 7(30).
- [53] Kudo H, Izumo Y, Kodama H, Watanabe M, Hatakeyama R, Fukuoka Y, et al. [2007] Life satisfaction in older people. Geriatr Gerontol Int. 7(1):15-20.
- [54] Park JSh, Kim YB. [2004] Patterns of family network and life satisfaction of elderly in the Seoul metropolitan area. Geriatrics and Gerontology International. 4:266-7.
- [55] Liu LJ, Guo Q. [2007] Loneliness and health-related quality of life for the empty nest elderly in the rural area of a mountainous county in China. Qual life res. 16(8):1275-80.

- [56] Borge C, Halberg I, Blomquist H. [2006] Life satisfaction among older people with reduced self-care capacity: the relationship to social, health and financial aspects. Journal of Clinical Nursing. 15:607-618.
- [57] Sohng KY, Sohng S, Yeom HA. [2002] Health promoting behaviors of elderly Korean immigrants in the United States. Public Health Nursing. 19(4):294-300.
- [58] Dong X, Chang E, Wong E, Simon M. [2012] Perception and negative of loneliness in a Chicago Chinese population of older adults. Journal of Gerontology and Geriatricdvih.54:151-159.

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