Modeling the social participation and life quality of the elderly people of Ahvaz city in 2015

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ABSTRACT

Introduction: One of the health goals of elderly period is to increase the quality of life without disability. By increasing the ratio of social participation of the elderly people, the risk of beginning disability can be reduced. Therefore, the aim of present study is to investigate the relationship between social participation and its dimensions (attitude and performance) with the quality of life and its dimensions (life totality, health, social relationship, freedom and independence, home and neighborhood, mental and psychological health, financial status and leisure time activities) among the elderly people. Materials and Methods: This cross-sectional study was descriptive-analytical type. Data was selected and collected from 300 elderly people over 60 years old who referred to Ahvaz Health Care Centers, by stratified random sampling method. In this research, data collection tool was a three-part questionnaire. The relationship between the studied variables in the form of a hypothetical path model was investigated. Path analysis test by the aid of Lisrel software version 8.8 was used to confirm the fitness of model. Findings: About one-third of the elderly people (33%) did not have active social participation. Also, the elderly people were in a moderate condition in terms of overall quality of life (61.86 ± 7.82); also, in terms of independence (67.36 ± 9.40), in terms of health (64.77 ± 9.25) and in terms of leisure time activities (63.94 ± 8.73) they were in a relatively favorable condition. The results of path analysis showed that the ratio of explaining the attitude toward performing active social participation was equal to 0.97 and the ratio of explaining the active social participation behavior performing was equal to 0.46, and also the ratio of explaining active social participation on the quality of life was equal to 0.90. Finally, the variables of final model could explain 81% of the quality of life variance in the elderly people. Discussion and Conclusion: Social participation has an explaining role in promoting the life quality of elderly people. Hence, it is necessary to compile a comprehensive program to increase the social participation of elderly people according to the present realities and with a look towards the future in order to have active elderly people with a desirable quality of life in the coming years.

Keywords: Elderly, Social Participation, Quality of Life.

Introduction

In a community where youthfulness, cheerfulness and vitality have a lot of value, usually the elderly people are neglected. From a demographic point of view, people aged more than 60 years are known elderly [1]. If the proportion of elderly population in a country is more than 8 to 10 percent, that country has aged population [2]. In 2000, the world population with more than 60 years old has been over 600 million people [3], the number which is predicted to increase to 2 billion people by 2050 [4]. According to the census of 2011, more than six million and two hundred thousand people (8.26%) of the Iranian population constitute of people aged 60 years and older [5]. Therefore, the population aging process will be one of the challenges facing Iran in the coming years. Cardiovascular diseases, osteoarthritis, diabetes, hypertension, and many other illnesses increase in the last years of life [6]. The aging of population increases social, economic, health and medical needs [7]. The elderly people have allocated about 60% of health care costs, 35% of hospital discharges and 47% of

hospitals admission days to themselves [8, 9]. Changing and modifying unhealthy behaviors in the elderly people will have a potential impact on the advancement of health goals and, to the same extent, will reduce the costs related to their health care. Also, the promotion of elderly people's health and quality of life, in addition to being an aim to promote the level of community's public health, will also contribute to the economic sustainability. Studies have shown that the elderly people more than other people are exposed to the social isolation [10]. One of the key elements in promoting the quality of life and the general health status of elderly period is social participation [11]. Social participation is social communication and interaction with community in a way that the community benefits from the services of individual and the individual also benefits from the services and resources available in the community. Numerous factors affect the elderly people's social participation, including: demographic factors, environmental factors (housing and social environment) [12]. Social participation has been known as one of the factors that increases lifetime due to the role it has in improving the life quality of humans. Also, social participation has a direct impact on evaluating the health level of individuals, in a way that more active elderly people evaluate their health at a higher level than less active people in terms of social participation. This situation is more observed in women, people with dead spouse, people living alone and those with lower literacy level [11, 13-15]. Evidences also show that individuals who are socially isolated and are inactive tend to choose an unhealthy lifestyle [16]. Since one of the health goals of old age is to increase qualified lifetime without disability, by raising the level and ratio of social participation of the elderly people, the risk of beginning disability among them can be reduced. Therefore, the community can provide a suitable context for increasing social participation and the activity of this group. In the present century, a life with higher quality is the major concern of the health professionals and policymakers of community. Quality of life is an abstract, multifaceted, and relative concept which, while having objective dimensions and dependence on external conditions, is a subjective, internal issue and consequently depends on the person's perceptions and imaginations of his/her condition of life [17]. It is for more than two decades that urban communities talk about the problems of elderly people, their departure from the work cycle and social participation, and the so-called transition to a new population structure and the proportion of old people to children and young people. In 2002, the United Nations attracted the attention of the worlds to the issue of planning for the elderly people. The perspective document of "Active Aging" has provided its way to approach and look to achieve healthy aging throughout the life. The goal of active and dynamic aging is to increase the lifetime along with health and improving their quality of life [18]. Paying attention to the aging issues is considered among the most important issues in social policymaking of the countries and without knowing the basic needs and the dimensions of aging, planning for the social-psychological welfare of this group cannot be done [19]. It is

obvious that in the process of interaction, support, treatment and caring the elderly people, factors impacting on their quality of life should always be necessarily and adequately considered so that by identifying and managing these factors increasing the effectiveness of supportive, caring and therapeutic strategies can be achieved [20]. As social dimension has a significant impact on promoting the life quality of elderly people in particular, and as one of the goals of social rehabilitation of elderly people is to empower their active participation in administrating a part of community in which they live; however, with regard to the available sources, no research has been performed for modeling the relationship between social participation and the life quality of elderly people. Therefore, this study aims to model the relationship between social participation and the life quality of elderly people in Ahvaz city with the approach of structural equations modeling, and presents its results in the form of a suitable model for promoting the health of elderly people.

Investigation Method:

This cross-sectional study is descriptive-analytical type. The statistical population of present research consisted of elderly people over 60 years old referring to Ahvaz city healthcare centers in 2015, among which 300 people were selected by using stratified random sampling method. In this way that the studied population was selected based on the health center area under its coverage, which included 23 urban health centers, and the proportional to the number size of elderly people. In a way that the elderly people's statistics covered by aging services from all 23 urban health centers were extracted by the unit statistical centers, and after coordination with the relevant authorities, the desired sample from each one of the 23 urban health centers was randomly collected. The questionnaires, after expressing the purpose and method of study for the participants and acquiring their satisfaction, were distributed. The criteria for entering the study were: having an elderly case in health centers of Ahvaz city and also willingness to participate in this research. The criteria for removing from the study were: diagnosing mood disorders (depression) and cognitive disorders by the physician, having known mental and physical disabilities, having acute debilitating illnesses and residing in elderly people's home. Sometimes the researchers took the responsibility of reading questions and recording their responses. In this research, data collection tool was a three-part questionnaire which assessed the individual characteristics, quality of life and social participation of the people under study. The first part of the questionnaire was devoted to the individual characteristics of elderly people (age, gender, and occupation, level of education, marital status and income ratio). The second part assesses the quality of life in the form of 8 subscales of the life totality (2 items), health (2 items), social relationship (3 items), freedom and independence (3 items), home and neighborhood (2 items), mental and psychological health (4 items), financial status (3 items) and leisure time activities (3 items) based on 35-item tool of the

Persian version of the elderly people's quality of life questionnaire [21], which was previously validated by Nikkhah et al. [22]. The items of elderly people's quality of life tool were assessed based on the Likert's five-point scale. The scores of each subscale varies from zero to 100, that acquiring higher scores indicates the desirability of individuals' quality of life. The third part of the questionnaire assesses social participation that included 4 questions in the form of 2 subscales of attitude (2 items) and behavior (2 items). In order to design the third part of the questionnaire, by using the relevant scientific literature [23] in this field, the primary questionnaire was prepared, and after translating this questionnaire into Persian language, the content validity of this questionnaire was confirmed by 10 experts in the tool psychometric affair. The scores related to the subscale of attitude vary from 2 to 8, obtained based on the Likert's four-point scale, and the scores related to the subscale of behavior vary between 0 and 1, assessed based on 2 items in two modes of doing behavior (yes) or not doing behavior (no). The relationship between the studied variables was investigated in the form of a hypothetical path model (figure 1).
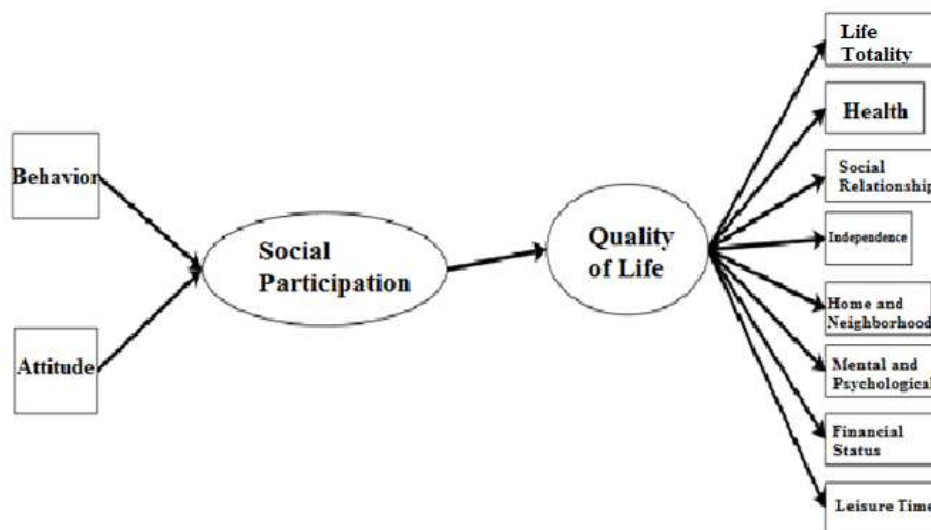

Figure 1: Hypothetical Model of the Relationship between Social Participation and the Life Quality of Elderly People

In this study, the un-weighted least squares method [24] has been used for analyzing data based on the hypothetical path model. For this purpose, the statistical Lisrel software version 8.5 was used. By using this software, having implemented the program, a linear model of assessing the relationship between the social participation and the life quality of elderly people was extracted. The extracted model was investigated based on the fit indicators of the model. In order to confirm the fitness of the extracted model, the most commonly statistical indicators for fitting the model, such as Chi square statistics ($\chi2$), the Root Mean Square Error of Approximation (RMSEA), comparative fit indicators: Bentler-Bonett index (NFI), and comparative fit indicator (CFI) were used [25]. If the Chi square is not statistically significant, it indicates the appropriate fitness of the model; the value close to one for the NFI and CFI indicators, and the value less than or equal to 0.05 for the RMSEA indicator indicate the appropriate fitness of the model.

Findings:

In this study (74.7%), 224 men and (25.3%) 76 women with a mean age of ($\pm$ 4.44) 63.77 years old participated. Out of the total number of people (65.7%), 197 people had under diploma education degree, and (34.3%) 197 people had education degree higher than diploma. Out of the total number of people (34.7%), 104 people had less than one million Tomans income, and (65.3%) 196 people had more than one million Tomans income. The majority of people, (68%) 204 people, were married and the rest were widowed or divorced. In terms of occupation, half of the people, (50%) 150 people, were retired, (41.6%), 125 people had free job and (8.3%) 25 people were housewives. The findings of social participation scale in terms of the subscales of behavior showed that about one third (33%) did not participate in social activities, and most of them (67%) had active participation in social activities. In respect of the attitude subscale, the mean score of ($\pm$1.54) 4.82 was obtained. The findings of the quality of life scale showed that the mean and standard deviation of the life totality quality score were ($\pm$ 7.82) 61.86 and their subscales were respectively: the life totality (5.77) 57.12, health ($\pm$ 9.25) 64.70, social relationships ($\pm$ 8.87) 62.19, freedom and independence ($\pm$ 9.40), 67.36, home and neighborhood ($\pm$ 9.25) 60.29, mental and psychological health ($\pm$6.97) 61.47, financial status ($\pm$4.38) 57.88, and leisure time activities ($\pm$ 8.73) 63.94. The correlation between subscales of the quality of life with social participation by using Pearson correlation coefficient has been presented in table 1.

Table 1: Correlation between the Quality of Life Dimensions and the Social Participation of Elderly People

Variables	Life Totality	Health	Social Relationship	Independence	Home and Neighborhood	Mental and Psychological Health	Financial Status	Leisure Time	Attitude	Behavior	Composite Reliability	Extracted Variance
Life totality	1										0.89	0.81
Health	0.54	1									0.89	0.81
Social Relationship	0.71	0.42	1								0.80	0.78
Independence	0.59	0.75	0.58	1							0.88	0.87
Home and Neighborhood	0.60	0.59	0.39	0.74	1						0.89	0.81
Mental and Psychological Health	0.65	0.56	0.71	0.70	0.62	1					0.88	0.86
Financial Status	0.38	0.40	0.66	0.39	0.45	0.70	1				0.87	0.86
Leisure Time	0.81	0.67	0.61	0.55	0.46	0.54	0.54	1			0.84	0.83
Attitude	0.73	0.44	0.57	0.47	0.61	0.54	0.74	0.64	1			
Behavior	0.53	0.39	0.44	0.51	0.75	0.37	0.47	0.42	0.39	1		

All variables showed a significant correlation. If the correlation coefficient between two variables is higher than 0.9, it indicates the multiple co-linearity of variables. A multiple co-linearity occurs when the independent variables measure the same component. When two or more independent variables have high correlation, the possibility of "multiple co-linearity" existence is high. In such cases, doing statistical analysis is insignificant and useless, because the regression coefficient variance is excessively enlarged. The results of this study indicate that there is no multiple co-linearity issue in this study.

In figure 2, the fitness indicators of the final model has been presented according to the proposed hypothetical model.
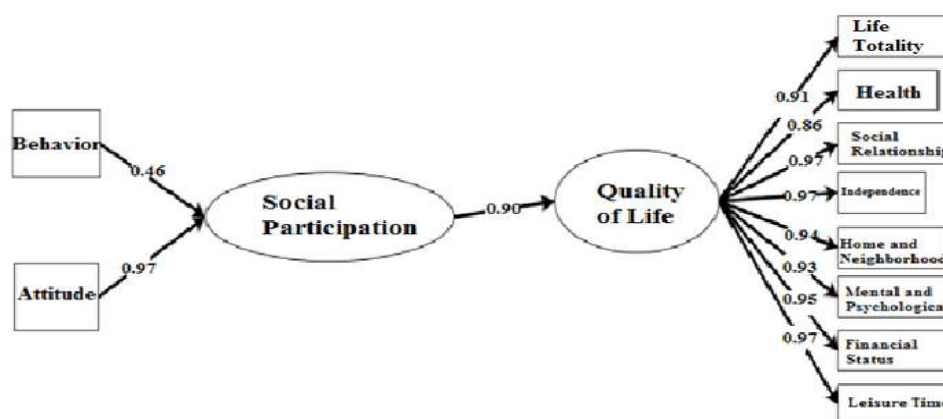
Chi-square=67.84, df=34, p-value=0.0000, RMSEA=0.052

Figure 2: The Final Model of the Relationship between Social Participation and the Life Quality of Elderly People

The subscales of attitude and behavior respectively with the impact coefficient of 0.97 and 0.46 on the social participation scale were able to explain 81% of the quality of life variance in the elderly people. Investigating the path coefficients of the final model showed that the path coefficient of this study is higher than the absolute value of the standard path coefficient (0.3). Therefore, the subscales of attitude and behavior could affect the social participation with a moderate to high impact level. All subscales of the quality of life, including the life totality, health, social relationship, freedom and independence, home and neighborhood, mental and psychological health, financial status and leisure time activities have also affected the quality of life with a high impact level.

After fitting the structural model, the structural and diagnostic validity along with the composite reliability of all the variables under study were investigated. In this study, the construct validity assessment was calculated by using confirmatory factor analysis; if the factor load of each item with its structure is higher than the t-statistics value of 1. 96, then that item has the required accuracy to assess that structure. The calculated values indicated that the linearity of questionnaire's questions is valid in assessing relevant concepts, and the structural validity of questions was confirmed. In addition to the structural validity, the diagnostic validity assessment was calculated with the help of average variance extracted indicator [26]; it means that, the items of each structure can provide an appropriate separation in terms of measurement compared with other structures of the model. The results showed that the AVE (Average Variance Extracted) of all assessed structures is higher than 5.0. Finally, the reliability of questionnaire was

performed by using the composite reliability method [27]. Calculating the composite reliability coefficient was performed in a way that the values higher than 0.6 for each structure show their appropriate reliability. In this research, the composite reliability coefficient ratio for all the desired variables was confirmed. These values have been presented in table 1.

Discussion:

The findings of this study showed that the majority of elderly people in terms of attitude, believe in participating to perform social activities, but in other studies, a significant percentage of elderly people were reluctant to participate in social activities [12]. It seems that a set of factors, including economic problems, inadequate social security, suffering from chronic diseases, life responsibilities, loneliness, and living with non-peers people such as children and the lack of companion in aging period, are complicatedly interconnected with each other and with a synergic impact on each other, lead to the reduction of social participation of the elderly people. Therefore, it is necessary to consider these factors in the comprehensive economic, social, cultural, welfare and healthcare services programs of the elderly people to maintain and promote their social participation, so that in the future, we will have more active elderly people and more successful elderly period.

The World Health Organization has defined the quality of life as an individual's evaluation and perception of his/her own life status influenced by the cultural and value system of the situation in which he lives [28]. In fact, the goals, expectations, criteria, and desires of an individual extensively impact on his/her physical, psychological, independence ratio, social relationship and beliefs. Hence, in the context of the desirable quality of life, an individual is away of the primary concerns of life, such as supplying food, clothing and housing, and thinks about higher goals and ideals, and over time, the feeling of collective and group identity, the feeling of a common vision of the future and a positive impression towards the community are formed in him/her and increases the communication radius of people with each other and the membership of people in various social networks.

The results showed that the mean score of overall quality of life and its subscales were at a relatively desirable level. Some studies in Iran show that the life quality of elderly people in our country is not that much desirable [29]. It seems that the most important reason for this inconsistency is the difference in the living place of the elderly people. Generally, the elderly people living in sanatorium have a lower level of health and therefore lower quality of life than other elderly people. Although, the results of present study are consistent with the researches conducted on the elderly people in southern Lebanon [30] and Turkey [31]; [29], the results of present study indicate that the status of subscales score of freedom and independence, health, and leisure time activities was better than the subscales of life totality and financial status. This finding is in accordance with the results of Nikkhah et al. study [32]. Usually, the elderly people avoid depending on others, and

consider it important to have more independence and freedom to enjoy life. The importance of well-being is also well stated in the studies on aging [33]. Enjoying health will enable them to be able to perform their duties independently and rely on themselves and not on others without feeling stressed and worried.

The aim of the present study is to design an appropriate model based on the relationship between social participation and the quality of life in the elderly people of Ahvaz city by using a structural equations modeling approach to promote the health of elderly people. The results of the structural path model analysis of the relationship between social participation and the quality of life in the elderly people showed that the model is well fitted with the data. In investigating the path coefficient of structural model, a high correlation between the variables of social participation and the life quality of elderly people was observed (r = 0.90). Also, the determination coefficient value (R2 0.81) showed that social participation variables can explain 81% of variance changes of the quality of life in elderly people. These results indicate a strong and significant impact of social participation on the quality of life, which is consistent with the results of the Kuo's study in 2010 [34]. In other studies, social participation has also been mentioned as a determining factor to promote the quality of life [35, 36]. According to the quality of life theories, social variables play a key and basic role in promoting the quality of life. But some studies have shown a poor relationship between social participation and the quality of life [37, 38]. The life quality of people depends on the type, severity and the way of their social relationship. When an inconsistency is formed between expectation and experience, that is to say, when a gap is created between the expectations from the community, the satisfaction resulted from meeting the needs and available resources the gap is created, deprivation is formed and people lose their connection to the community. The social relationship affects the quality of life from two respects; on one hand, it meets their emotional, cognitive and even financial needs, and, on the other hand, by inhibiting the desires of people, prevents their endless and unsatisfactory wishes and reduces their relative deprivation feeling. Social participation creates a process in which people are driven into ways and channels of communication to participate in community decision-makings. Social participation creates correlation and a positive image of the community for people, and this positive image and correlation becomes a factor to increase the communication radius of people that brings confidence and security for them and ultimately all of these factors lead to the formation of a favorable quality of life.

One of the limitations of the present study is that it is cross-sectional type of study that will undermine the inference of causal relationship between variables. Another limitation is the inclusion of participants in the study from the elderly people referring to healthcare centers, which could lead to bias in selecting the covered population when performing the study. If the selection of population is initially carried out at much dispersed locations, it will become very difficult to collect data

as well as doing future follow-ups. It is therefore more desirable that the concentration of population, of course to the point that it does not result in selection bias, and also selecting an appropriate population, is maintained. Significant strengths of this study were the high explanation ratio of the variance of elderly people's quality of life in relation to the variables of social participation and also the high sample size of the study. It is also worth mentioning that investigating and modeling the relationship between the dimensions of elderly people's social participation and the quality of life with the approach of structural equations modeling is carried out for the first time in Iran.

Based on the findings of present study, it could be useful for future researches to investigate understanding the limitation of elderly people's social participation before and after the disease in longitudinal studies. In this way, they will be able to understand the actual share of changes in certain aspects of social participation. In addition, it is necessary to assess the role of social partnerships on the mental and functional aspects of the quality of life as part of treatment. Finally, it is recommended that researchers, in order to maintain and promote the health of the elderly people, perform social and psychosocial interventions by relying on the aspects of social participation through comparing their effectiveness between the sick and healthy elderly people.

Conclusion:

The results of this research showed that social participation is an effective explainer in the promotion of the elderly people's quality of life. Therefore, the evidences of present study can be a useful guide to design a comprehensive educational planning to maintain and promote social participation, and ultimately promote elderly people's quality of life. Hence, compiling a comprehensive program that increases the elderly people's social participation according to the current realities and with a look towards future is required so that we can have active elderly people with a desirable quality of life in the coming years.

Acknowledgments:

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