



Comparison of self-concept and self-efficacy between non-residential and residential elderly people in nursing homes of Iranian population

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ABSTRACT

Self-concept and self-efficacy are important variables in the field of aging, which less attention has been paid to them. This study was conducted to determine and compare the non-residential and residential elderly people living in nursing homes of Tehran in 2015. This descriptive study was conducted by using cross-sectional method. Its population consisted of non-residential and residential elderly people living in nursing homes of Tehran. Sample of study included 434 people assigned into two groups, including 217 residential elderly people living in nursing homes of Tehran and 217 non-residential elderly people. Sampling for the elderly people living in nursing homes was quota, and simple randomized sampling was performed in each nursing room according to number of residential elderly people, while convenient sampling was performed for non-residential elderly people. In addition to demographic questionnaire, Roger's Self-concept Test and Self-efficacy Scale were used to collect data. Reliability of tools was assessed. Data were entered to SPSS (V18) software and they were analyzed by the descriptive statistics including frequency, mean, standard deviation and inferential statistics including Chi-Square test, Pearson correlation coefficient, Kolmogorov-Smirnov test, ANOVA, and independent t-test. : The findings showed that the mean self-concept in non-residential and residential elderly living in nursing homes of Tehran was 8.41 ± 1.63 and 8.52 ± 1.47 , respectively, and this variable was not significantly different in the two groups. The mean self-efficacy in non-residential and residential elderly living in nursing homes of Tehran was 22.02 ± 5.14 and 71.84 ± 4.00 respectively, and this variable was significantly different in the two groups ($p=0.000$). It was also found that there is a significant relationship between self-concept and self-efficacy in residential elderly people ($p=0.029$) and non-residential elderly people ($p=0.002$). The self-concept of non-residential and residential elderly people living in nursing homes of Tehran was low, and self-efficacy of residential and non-residential elderly was low and high, respectively, in which increased self-concept led to increased self-efficacy in residential and non-residential elderly people.

Keywords: self-concept, self-efficacy, residential and non-residential elderly people

INTRODUCTION

The aging has become an important global phenomenon nowadays, and paying attention to problems of this stage of life is considered as a social necessity. Aging is a natural process and one of the stages of human development and evolution. Improved living conditions, health care, and longevity and life expectancy have been followed by aging phenomenon in communities. During this process, some changes occur at physiological, psychological, and social dimensions [1]. According to the World Health Organization report in 2012, the number of elderly people in the world will increase from six hundred and five million to two billion people by 2050, and with the rapid increase in the number of elderly people, one out of five people will be elderly 2050 [2]. According to estimates of international authorities, Iranian elderly population will increase rapidly from 1419 onwards, compared with other countries and even global mean. It will grow faster, and it will exceed from mean elderly people population in world by 1424.

According to the General Census of 2006, the population of elderly people over 65 years was about five million and one hundred and nineteen thousand and it included 7.3 per cent of the total population. It is predicted that this population to reach more than twenty-five million by 2050, which this process will be faster than the other population groups [4]. Since the number of elderly people is rapidly increasing nowadays, paying attention to health and welfare and well-being of this group has particular importance [5]. Human is a social and thinker creature, and each man exhibits different behaviors [6]. There are many factors affect their behaviors, attitudes and thought, and one of the most important factors is self-concept or the image that the person has about himself and those around him. All people require a constant, firm, and positive evaluation of themselves. In addition, all of them require self-respect, self-esteem, and respect of others to themselves [7].

Self-concept of each person determines and controls the scope of activity of that person in the life. Self-concept is one of the most important success factors in people's lives. If one knows his abilities and talents and has positive impression of his abilities, he believes that he can achieve what he has talent in it. This positive self-concept enhances his efficiency, effectiveness, and realization of his goals [8]. One of the most important factors influencing efficiencies and realization of personal goals is self-efficacy, which is in fact self-efficacy beliefs determines how much people spend time to do their works, how much have resistant in dealing with difficulties [9, 10]. Self-concept is a degree of sense of one's mastery on ability to perform desired activities. In other words, self-efficacy of a person is an insurance with which one displays a certain behavior in a given situation and expects the desired results [11].

Self-efficacy beliefs affect thought patterns and emotional actions of people. Therefore, people with low self-efficacy may believe that the problem cannot be solved and this is a belief that leads to stress, depression, despair, and narrow vision for solving problems. On the other hand, high self-efficacy, when approaching a difficult task and action, creates a sense of easiness [9]. Self-efficacy in the elderly people has special importance. Studies have shown the effect of self-efficacy on different aspects of life in the elderly people. For example, the relationship between self-efficacy and successful conciliation with nursing homes, quality of life, physical activities, basic daily activities and self-care in elderly people has been shown [12-14].

Self-efficacy has been discussed widely among experts in all age periods, especially in the elderly people due to age conditions and physiological changes and their vulnerability. Bandura's social cognitive theory introduces the best predictors of behavior and behavior change and displays the human behavior, which the most important components of it is self-efficacy [15]. On the other hand, the positive correlation between self-efficacy and physical functions has been identified during the studies, so that elderly people who underwent self-efficacy improving program displayed better physical functioning and life satisfaction [12]. Researchers have shown that people, who are confident in their abilities, participate actively in health promotion programs. They believe that they can effectively control their life events in their lives. Thus, self-efficacy is a crucial factor in the success or failure in human life [16, 17].

As mentioned, self-concept and self-efficacy face with greater challenges in old ages compared to other periods of life. On the one hand, the transformation of social structures in recent decades and changes in traditional family system, which emphasized on preserving the elderly people within the family, to core family attempts to downsizes the family unit, have led to increased use of nursing homes and transferring the elderly people to these centers. In this situation, the question is in which situations and conditions of life elderly people have better health. According to some researchers, transferring the elderly people to care centers and nursing homes will cause many problems. When elder people are transferred to nursing homes, apart from change in lifestyle, they become dependent

physically, mentally, emotionally and even economically, so that if this dependency continues, their self-efficacy and self-concept are threatened.

In this regard, various researches have shown that elderly people who live with their family enjoy higher level of health status quality of life [18-20], because living in family is associated with emotional support of members. On the other hand, useful emotional relationship of elderly people with members of family, friends, and people in community is followed by better health and quality of life of elderly people. In contrast, the positive effect was limited to keeping the elderly in centers for the elderly. According to the researchers, staying in a nursing home for the elderly people is in line with comply with probable lacks in resources and providing them in various aspects of elderly people, and elderly people care institutions and centers can make lack of functional capacity and lack of independence for the individual tolerance and compensate it in some extent. On the other hand, living in nursing homes has some benefits, including communication with peers, access to nursing facilities, and avoid of loneliness and depression, which can be effective in maintaining the health and promoting the self-efficacy and self-concept in elderly people [21]. As Iran has started its aging experience, considering and studying the issues of self-concept and self-efficacy of non-residential and residential elderly people in nursing homes are very important. Very few studies have been conducted in Iran on self-concept and self-efficacy of elderly people living in nursing homes and comparing them with those ones living in family.

Considering the importance of self-concept and self-efficacy of elderly people, comparing these two variable in the non-residential and residential elderly people living in nursing homes could be valuable, since it will provide important information in response to this question under what conditions elderly people display better self-concept and self-efficacy. The main objective of researcher in this study was to compare the self-concept and self-efficacy of non-residential and residential people living in nursing homes. The findings can develop our knowledge in these areas. In addition, these findings can be provided for concerned authorities for planning and providing appropriate policy in the field of enhancing the self-efficacy and self-concept of non-residential and residential elderly people living in nursing homes.

MATERIALS AND METHODS

Comparative (descriptive-analytical using cross-sectional method) type of study was used in this research. Statistical population of study included all non-residential and residential elderly people living in nursing homes in Tehran. Inclusion criteria included (1) Subjects aged 60 years and higher (2) ability to communicate, (3) lack of acute physical problems, (4) having willingness to participate in the study and staying more than three months in a nursing home (for the residential people). Exclusion criteria of study included (1) unwillingness of elder person to continue his participation in the study (2) exclusion of the questionnaires, which their information was incomplete. The environment of study was nursing homes of Tehran, which total number of them was 10. Welfare Department of Tehran issues the license of sampling. In addition, elderly people are outside of the nursing homes of Tehran. To obtain sample size, 30 residential elderly people and 30 non-residential elderly people were studied in a pilot study. The mean and standard deviation of the self-concept in residential and non-residential elderly people were obtained $s_1 = 9.93$, $s_2 = 13.16$, $\bar{x}_1 = 29.94$, $\bar{x}_2 = 32.78$, respectively: Therefore, according to our findings and using a significance level $\alpha = 0.05$ and power $1 - \beta = 0.80$, it could be concluded that:

$$n = \frac{(9.93^2 + 13.16^2)(1.96 + 0.84)^2}{|29.94 - 32.78|^2} = 217.05 \cong 217$$

Sampling license was obtained respectively from the ethics committee of Tehran University of Social Welfare and Rehabilitation and Tehran Welfare Department. After obtaining the informed consent of elderly people, research questionnaires were provided for them. Sampling for the elderly people living in nursing homes was quota, and simple randomized sampling was performed from each nursing home according to sample size and number of residential elderly people. Convenient sampling was used for non-residential elderly people, who were matched in terms of age and gender. Sampling was performed by referring to elderly people in neighborhood of each nursing home, homes, and parks as well as mosques. If any of the samples (residential or non-residential) had trouble in reading or understanding the questions of questionnaire, questionnaires were read and explained for him.

Then, data were entered to SPSS version 18 software and they were analyzed by the descriptive statistics including frequency, mean, standard deviation and inferential statistics including Chi-Square test, Pearson correlation

coefficient, Kolmogorov-Smirnov test, ANOVA, and independent t-test. To collect data, standardized questionnaire was used. In addition to the researcher-developed demographic questionnaire, Rogers' self-concept test and Schwarzer's self-efficacy scale were used.

Rogers' self-concept scale: it consists of 25 personality traits with opposite trait in front of each trait. The distance between the two opposite traits is scored by 7-point scale, assessing the attitude of person toward himself, and Form B measures their attitudes toward their ideal. Total score of zero to 7 represents a positive self-concept, score between 7.1 and 10 indicates negative self-concept and score greater than 10.1 represents neurotic concept. Validity of the tool has been confirmed in several studies. Shafiabadi and Vali nouri obtained the Cronbach's alpha 0.79 for Form A and 0.75 for Form B (22).

General Self-Efficacy Scale (GSE-10): This scale was developed by Schwarzer and Jerusalem. Several studies in Iran have validated it and its Cronbach's alpha coefficients have been obtained 0.81 in a study conducted by Moeeni (23) and 0.82 in a study conducted by Rajabi (9). This scale consists of 10 questions that its answers are in the form of options ranging from "it is not correct" to "completely correct", ranked from one to four, which the minimum and maximum score is 10 and 40, respectively. Getting a high score on this scale indicates a higher general self-efficacy. This scale has no cut-off point and according to the median of tools, subjects are divided into two categories, high and low efficacy.

Findings

In this study, 434 elderly people were participated that 217 of them were staying in nursing homes and 217 of them are living in family. Frequency of women participating in the residential and non-residential elderly people was more than that in men. In both groups, the rate of elderly people whose spouses have been died was more than that in other groups. In addition, in the residential group, the rate of married elderly people was less than that in non-residential group. The mean age of the residential elderly people is 87.66 ± 11.78 years that the minimum age was 60 and maximum age was 96 years. Additionally, the mean age in non-residential elderly people was 88.11 ± 9.86 years that the minimum age was 60 and the maximum age was 96. On the other hand, the rate of illiterate elderly people was more than that in non-residential people, and the level of secondary school education in both of residential and non-residential groups was 76 and 65 elderly people. In addition, only 15 elderly people in residential group and 22 elderly people in non-residential group had academic education. Most of elderly people living in nursing homes (82 people) had the experience of 12 to 36 months staying, followed by staying less than 12 months (72 people).) (Table 1).

To investigate the match between residential and non-residential groups in demographic variables, Chi-square test, Pearson test, and T- independent test were used. The variables of gender, age group and education level had no significant difference between the two groups, but there is a significant difference between two groups in terms of marital status variable ($p=0.000$) (Table 2).

Self-concept mean score of residential elderly people was 8.25 and its SD was 1.47, while mean scores of non-residential elderly people was 8.14 and its SD was 1.63. Therefore, the self-concept mean of both residential and non-residential groups was negative. In addition, self-efficacy mean score of residential people was 17.68 and its SD was 4, while mean score of non-residential elderly people was 22.20, and SD was 5.14. Therefore, mean of self-efficacy for residential and non-residential people was at the minimum and maximum level, respectively (Table 3). The self-efficacy level among residential and non-residential elderly men was 18.33 and 18.20, respectively, and it was 17.34 and 17.18 among elderly women. In addition, self-concept level among residential and non-residential elderly men was 7.45 and 7.59, and it was 7.98 and 8.03 among residential and non-residential elderly women. Self-efficacy between single residential and non-residential elderly people was 18.12 and 18.40, respectively, and self-concept in married residential and non-residential elderly people was 7.76 and 7.40. In addition, the level of self-efficacy in elderly people who have academic education level in the residential and non-residential groups was respectively 18.30 and 18.45, and the level of self-concept in elderly people who have academic education level in the residential and non-residential groups was respectively 6.21 and 6.01 (Table 4).

The p-value related to Kolmogorov-Smirnov test in the scores of self-concept and self-efficacy variables in both residential and non-residential groups is more than 0.05. Therefore, it is concluded that distribution of all variables is normal (Table 5).

There is a significant relationship between self-concept and residential and non-residential self-efficacy of elderly people living in nursing home ($p=0.002$ and $p=0.029$). Due to negative values of correlation coefficient in residential group ($r = -0.149$) and non-residential ($r = -0.213$) and the fact that the lower score in questionnaire indicates higher self-concept, it can be concluded that by reducing the self-concept score among residential and non-residential elderly people increases (Table 6).

According to the value of T statistic and p-value, it can be concluded that the mean self-concept between residential and non-residential elderly people was not significantly different. On the other hand, the mean of self-efficacy between the two residential and non-residential elderly people groups was significantly different ($p = 0.000$) (Table 7).

DISCUSSION

According to the findings, the mean score of self-concept was low in residential and non-residential elderly people living in nursing homes of Tehran, and there was no significant difference between self-concept status of residential elderly people living in nursing homes and self-concept status of non-residential elderly people. Self-concept of male elderly people was more than that in female elderly people. In addition, self-concept of married elderly people was more than that in single elderly people. Self-concept of elderly people in the age group of 60 to 70 years was more than that in other age groups and the rate of self-concept in elderly people who had academic level of study was better than that in people who had other education levels. In a study conducted in 2003 in south of Taiwan, Suo *et al* investigated and compared self-concept and factors affecting it in elderly group in retired people center (42 people) and elderly people living in home (33 people).

The results showed that the self-concept of elderly people was significantly lower in elderly people living at home. Finally, researchers suggested that programs to be considered to increase the social interactions of elderly people to improve the self-concept of elderly people (24). Aitken examined and compared self-concept in two elderly groups living in nursing homes ($n = 30$) and non-residential nursing homes ($n=10$) in 1982. The findings of this study indicated significant differences between the two groups. Finally, the article researcher suggested programs to increase independence of elderly people in order to increase their self-concept (25). Martin Pinkuvart and Sylvia Sorensen in the meta-analysis reviewed 300 experimental studies and they found that self-concept in elderly women is considerably lower than that in older men (26). In other studies conducted to examine the self-concept in other groups, Navidian Ali Salar (2001) and Dibajnia (2005) also showed that self-concept of men is higher than that in women (27, 28). In explaining this result, we can refer to socio-cultural conditions and emotional and physiological structure of women.

In the study by Navidian Ali Salar (2001), lower self-concept in married people (without referring to gender) was reported slightly higher than that in single elderly people, which this difference was not significant (27) and this finding is not in line with finding of this study. According to researcher, one reason might be that the married elderly people have higher peace of mind and mental security due to having spouse, which it can increase their self-concept. Studies conducted by Vali Nouri (1993) and Dibajnia (2005) showed that self-concept has no significant relationship with age and education level (28, 29) and the findings are not consistent with findings of current research. According to the researcher, elderly people with higher education due the more information have greater ability to perform daily tasks and to cope with psychological pressures. In addition, by increasing age, the physical changes that occur in the elderly people reduce their self-concept. Additionally according to findings of this study, increased self-concept leads to increased self-efficacy of elderly people. as the subject of the current study in a new subject in this area, and as less studies have been conducted in this regard, similar research was not found to compare this finding. However, in other groups, Ghanbari Hashem Abadi *et al* (2012) examined the relationship between self-concept and self-efficacy of Mashhad University students. Findings of the study on 455 samples indicated significant correlation between self-concept and self-efficacy in this population (30). In another article presented in the Seventh National Conference on Physical Education and Sport Sciences at the University of Tabriz in March 2006, Javadian Saraf and Shajee examined the relationship between self-concept and self-efficacy in a group of athletes. The findings of this study showed significant relationship between these two variables in studied population (31), and this finding is consistent with current research findings. The mean scores of self-efficacy in non-residential and residential elderly people living in nursing homes of Tehran were at the minimum and maximum level, respectively, and the status of this variable in these two populations was different. Self-efficacy of male elderly people was more than that in female elderly people. In addition, self-efficacy level of elderly people who were in age group of 60 to 70 was higher than that in other age groups. Additionally, self-efficacy level of elderly people

who had academic level studies was more than that in other education level groups. Findings of the current study on elderly people living in nursing homes were in contrast with findings of study conducted by Toriki et al in 2011. Based on their studies, the self-efficacy status of elderly people living in nursing homes of west Tehran (32) was high, which this finding was not in line with the current study finding. According to researcher view, when elderly people are in nursing home, they are feeling that they have no role in community and they are only consumer, leading to reduced ability in them, and having a monotonous life without fluctuation disrupting the mental status of elderly people can be a factor in reducing their self-efficacy. It could be stated that depriving from family is one of the other reasons in this regard for elderly people living in nursing homes. Numerous studies have examined the self-efficacy status in various groups of non-elderly people.

In some of these studies, the self-efficacy status was high (33-35), while low in other studies (36, 37). In a study, Naseh examined the relationship between General self-efficacy and the quality of life in elderly people who are residential of nursing homes in Chaharmahal and Bakhtiari Province and the results showed that general self-efficacy of elderly people had significant and direct correlation with all subscales of the quality of life. Results of the study were in line with results of other studies conducted on other groups (38-40). Smith argued that high self-efficacy increases hope and motivation in individual and promotes his quality of life (39).

Keefe et al reported lack of significant correlation between self-efficacy and individual variables (including age, gender, and education level (35). This finding was in line with the findings of studies conducted by Wou et al (41) and Sui Hui Chen (42). In a study conducted by Mohammadi Shahbolaghi, significant correlation was not found between self-efficacy and individual variables such as age, gender, and marital status (37). It is perhaps due to fact that knowledge is source of power and controlling the situations is enhanced by increased knowledge and ability to make decision in various situation give the impression for this group of people that they can overcome the problems. Carroll et al believed that people with lower education level have fewer skills to cope with stress (43).

According to the findings, residential and non-residential elderly people groups were match in terms of age, gender, and education level, while they are not match in terms of marital status. Barzinjah Atri (1994) showed that the number of married elderly living in public and private nursing homes is less than the number of elderly people living in family (44). According to the researcher, being single during old age is an important factor for transferring elderly people to nursing home. The high rate of unmarried, or divorced, spouse died elderly people in nursing homes of compared to elderly people who live in families shows that family vulnerability is one of the tendency of the elderly people to nursing homes.

Table 1- demographic information of elderly peopel

		residential elderly people		non-resident elderly people	
		n	%	n	%
gender	female	144	66.4	132	60.8
	male	73	33.6	85	39.2
	total	217	100.0	217	100.0
marital status	single	46	21.3	30	13.8
	spouse died	119	54.8	100	46.1
	divorced	32	14.7	14	6.5
	married	20	9.2	73	33.6
	total	217	100.0	217	100.0
age group	60 to 70 years	50	23.0	23	16.1
	71 to 80 years	40	18.4	60	27.6
	81 to 90 years	103	47.5	90	41.5
	over 90 years	24	11.1	32	14.8
	total	217	100.0	217	100.0
education level	illiterate	99	45.6	90	41.5
	secondary school	76	35.1	65	30.0
	high school	27	12.4	40	18.4
	academic	15	6.9	22	10.1
	total	217	100.0	217	100.0

Table 2: results of matching two groups of non-residential and residential elderly people relative to demographic variables

gender	1.204Chi-Square=	df=1	P=0.272
marital status	Chi-Square= 44.378	df=3	.0000P=
education level	Chi-Square= 5.133	df=3	P=0.162
age	T = -0.918	df=432	.1250P=

Table 3- distribution or comparable statistics with regard to self-concept and self-efficacy separately for two groups of non-residential and residential elderly people

SD	mean		
1.47	8.25	residential	self-concept
1.63	8.14	non- residential	
4.00	17.68	residential	self-efficacy
5.14	22.20	non- residential	

Table 4- Distribution of self-concept and self-efficacy in the elderly people in terms of marital status, gender, education level, and age group

indicator variable		residential				non- residential			
		Mean self- efficacy	SD of self- efficacy	mean self- concept	SD of self- concept	Mean self- efficacy	SD of self- efficacy	mean self- concept	SD of self- concept
gender	female	17.28	3.90	8.03	1.60	17.34	3.92	7.98	1.33
	male	18.20	4.01	7.59	1.32	18.33	4.04	7.45	1.25
marital status	single	18.12	4.11	8.22	1.46	18.40	4.13	8.40	1.12
	spouse died	18.09	3.95	8.33	1.25	18.33	4.05	8.42	1.49
	divorced	16.80	4.30	8.63	1.46	17.02	4.34	8.45	1.43
education level	married	17.25	3.60	7.60	1.42	17.35	3.71	7.40	1.28
	illiterate	15.59	4.20	8.95	2.00	15.63	4.11	8.83	1.91
	secondary school	16.79	3.90	7.31	1.64	16.82	3.93	7.25	1.49
	high school	17.52	4.23	6.45	1.30	17.60	4.20	6.30	1.64
age group	academic	18.30	3.21	6.21	1.38	18.45	3.30	6.01	1.29
	60 to 70 years	18.03	4.11	6.51	1.54	18.11	4.31	6.11	1.64
	71 to 80 years	17.71	3.21	6.65	1.29	18.02	3.06	6.32	1.52
	81 to 90 years	17.05	4.35	6.94	1.38	17.21	3.62	6.60	1.54
	over 90 years	16.86	3.23	7.11	1.60	16.79	3.78	7.01	1.26

Table 5- test to determine the normality of the self-concept and self-efficacy variables in two residential and non-residential elderly people

variable	residential		non- residential	
	Kolmogorov-Smirnov statistic	p-value	Kolmogorov-Smirnov statistic	p-value
self-concept	0.586	0.456	0.800	0.544
self-efficacy	1.145	0.145	1.220	0.102

Table 6- Pearson correlation test between self-concept and self-efficacy of resident and non-residential elderly people

group variable	residential	non- residential
	self-concept	self-concept
self-efficacy	-0.149(p=0.029)	-0.213(p=0.002)

Table 7- independent t-test results for comparing the mean of self-concept and self-efficacy between the elderly residential and non-residential people

variable	statistic t	df	p-value	mean difference	Confidence interval %95	
					minimum	maximum
self-concept	-0.411	432	0.681	-0.11	-0.37	0.24
self-efficacy	-5.678	432	0.000	-4.52	-5.01	-2.64

CONCLUSION

Based on the findings, the status of self-concept and self-efficacy in elderly people living in nursing homes of Tehran is undesirable. On the other hand, the self-concept and self-efficacy of non-residential elderly people in

Tehran city is better than that in residential elderly people. The two groups showed no significant difference in the self-concept variable. However, the self-efficacy of non-residential and residential elderly people living in nursing homes was significantly different. The status of age, gender, and education level in two non-residential and residential elderly people was not significantly different, while the variable of marital status was significantly different between two groups. In general, given the importance of self-concept and self-efficacy in elderly people, it seems to be necessary to pay more attention to these issues in the vulnerable group of elderly people. It is hoped that elderly people authorities to develop proper planning to increase the level of self-concept self-efficacy in the elderly people in light of these results so that we can experience high quality life in elderly people in future. As sample of study was limited to elderly people living in Tehran, we should treat with caution in generalizing the results to other communities. In addition, due to limited domestic investigations in this regard, it was impossible to compare the results completely (especially, in the self-concept area). Another limitation of the study related to cross-sectional nature of the study and mental, individual, and social differences of the elderly people.

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