ORIGINAL PAPER

ASSOCIATION BETWEEN SELF-CARE BEHAVIORS AND SELF-ESTEEM OF RURAL ELDERLIES; NECESSITY OF HEALTH PROMOTION

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ABSTRACT

Introduction: Changes in the modern medical science caused significant reduction of mortality and every day increase of the elderly in the world. According to prevalence of physical and mental problems in elderly, it is necessary to take some actions. Self care in one of the best way to improve elderly health and life satisfaction that seems have a relation to self-esteem. **Methods:** This descriptive and analytical study was performed on 180 elderly in rural areas of the Sari city. Elderly selected by multi-stage randomize sampling method. Data were gathered by using standard questionnaires of self-care and Rosenberg self-esteem. Data were analyzed by Spearman and Pearson's correlation using SPSS software (V16). **Findings:** The mean±SD of the ages of the elderly were 66.85±7.661. The score of self-care varies between 99 to 155 and most of them (66.7%) had good level of self-care. Also, most of elderly (52.2%) had high level of self-esteem. Also there was a significant relationship, between self-care and self-esteem (P<0.001, r=0.426). **Conclusion:** According to significant relationship between self-care and self-esteem of elderly, by the planning for improving the self care of elderly, can increase their health and significantly reduce from physical and mental complications.
Key words: Health promotion, Primary care, Self-care, Self-esteem.

1. INTRODUCTION

Changes in the modern medical science in 20th century have caused significant reduction of mortality, in contrast to past, that subsequently have caused every day increase of the elderly in the world (1, 2). Anthropologists have considered ages of 60-65 as entrance of the elderly period (3). According to official estimation has done in 2011, the total population of world's elderly were 687,923 persons and its estimated to reach 1.5 and 2 billion by the year 2025 and 2050 respectively (4, 5). According to the reports of the center of the census of Iran (2011) 3,695,977 peoples of the total population of Iran were above 60 years old (5.72% from total) and its expected that, reach to 10 million people by the year 2021 (6, 7). Based on recent researches, prevalence of physical and mental changes such as decrease of brain performance, diabetes, chronic heart disease, optical disorders, sorts of cancers, skeleton changes and instability while walking has a direct relation to senility and about 15-20 percent of the

elderly people have bold psychological problems (8-11). One of this prevalent disease is depression that its reaches to 50 percent in sanitarium (12). Based on findings of some study, depression and self-esteem have a significant relationship (13). Also, increasing the age of the elderly can decrease the level of physical activities caused by special biological changes and consequently can cause psychological changes such as losing self-esteem (14). Regarding to increasing growth of the elderly and emergence of mental disorders that has considerable effect on the style of family`s lives and the economy of society, it is needed that some suitable actions be done for elderly (15). Based on a study, 29% of the country's per capita medical costs are paid for this range of ages (16). Self-care consist of all preventing, treatment and recovery activities that cause promoting the quality of life, satisfaction of patients and consequently improvement of rehabilitation (17, 18). Based on a research in self-care activities of the elderly 93.4% and 71.5% of the elderly did

not need others`help in routine simple and instrumental activities respectively. The mean of their daily simple and instrumental activities was 13.53±1.53 and 14.20±3.71 respectively that show self-care independence and suitable level of activity of the elderly (19). Based on a research performed on the elderly in Kermanshah, the level of self-esteem of the elderly was excellent (35.63±5.25) also in the other research the mean of self-esteem of the Korean elderly was reported 28.23±3.63 which shows the intermediate level of self-esteem in this population (20, 21). Based on various studies, it`s clear that most of the researches that have done on the self-care realm of the elderly were interventional. They also reported that self-care programs for the elderly can be effective from several aspects; for example in a study has done by Makai, positive effects of self-care patterns on the quality of life was proved (22). Also satisfaction of patients, affected to brain stroke was reported after self-care activities (23). And the aged women's knees with osteoarthritis improved, after a period of exercise in the water and the effectiveness of physical (kinds of physical self-care) and sports activities (PSA) was confirmed (24, 25). In addition, according to the results of the study, the level of self-esteem was increased significantly, after doing self-care methods (26). The results of studies show the potential effects of self-care behaviors on all aspects of the elderly protection. However most of these studies were interventional and were done in rural areas.

Planning on self-care proceedings for rural elderly requires the study of existing conditions and based on available database no study was done about behaviors and self-esteem of the elderly of the rural areas of Mazandaran province, So this research conducted to survey the relationship between self-care behaviors and self-esteem of the elderly living in villages of Sari city.

2. METHODS

This descriptive and analytical study was done on elderly living in villages of Sari city (capital of Mazandaran). Sampling was done according to multistage randomized method. The population under the study were elected from villages of Sari city. At first, total statistic of villages located in Sari city was received and then four villages were elected by randomized method that consist of Marzroud (From the north, 57 elderly), Ahidasht (From the south, 44 elderly), Zoghalchal (From the east, 46 elderly) and Sorkhkola (From the west, 33 elderly). Then, based on some studies 180 elderly, were studied (27). 180 questionnaire (all of the items) were completed by selected elderly. Inclusion criteria's were all the elderly above 60 years old, without Alzheimer disease, unstable chronic disease (such as cancer and AIDs) and acute heart failure (all these items assessed by self reporting). Exclusion criteria's were dissatisfaction from the study or any unpleasant events occur for elderly that cause interruption from study. After reception of consent form, questionnaires were handed out. Some of the parameters of consent form was ensure the non-disclosure of information, give the overall results to elderly and exclusion in case of dissatisfaction. After getting permission from rural health departments, based on list of elderly, after explanation details of the study and getting consent form from elderly, questionnaires were distributed. The study was confirmed in ethics Committee of Mazandaran university of medical sciences. The instrument for collecting data in this study was self-care behaviors questionnaire and Rozenberg self-esteem.

Self-care questionnaire (Standardized by Ministry of Health and Medical Education) consisted of 34 parameters that included 4 subscales (physical, psychological, emotional and spiritual self-care) (28). Scoring was done according to Likert from 1 to 5 (i.e. I do not have any program up to always). The total score was ranked from 34-170. The scores 34-67, 68-101, 102-135 and 136-170 shows weak, intermediate, good and excellent level of self-care activities respectively. The reliability of the questionnaire was calculated according to test. Re. test method with 7 days intervals on 15 elderly and infraclass correlation coefficient (ICC) calculated 0.841.

Rosenberg's self-esteem standard questionnaires consist of variables such as sense of worthy, ability to perform a duty, positive self-conceit, self- satisfaction and sense of failure. This questionnaires consisted of 10 items (five items were positive and five items were negative). scoring was done according to Likert from 0 to 3 (i.e. completely agree up to completely disagree) for the questions with negative contents and from 3 to 0 (i.e. completely agree up to completely disagree) for the questions with positive contents and the highest possible score was 30. The scores above 21, between 17-21 and below of the 17 show the high, intermediate and low level of self-esteem respectively (29). Based on a study done by Makikangas, et al., Cronbach's alpha, for this scale were calculated in the first (0.87 for men and 0.86 for women) and second orders (0.88 for men and 0.87 for women) (30). The correlation of every content of the questionnaire variables from 0.56 to 0.72 that were significant in *P*<0.001 (31). The intentional attunement on 198 Estonia was calculated 0.84 (32).

Data Analysis

The data were analyzed by SPSS (V16) at *P*<0.05 level. Also normality of data's were approved by Kolmogorov-Smirnov test (*P*=0.628). All the data were assessed to be normally distributed in each of the workstations so some descriptive and analytical statistics (Pearson and Spearman correlation) were used for data analysis.

3. FINDINGS

In this study 180 elderly persons (100 men and 80 women) were selected. The Mean ± SD of the ages of the elderly were 66.85±7.661 yr. Most of them (79.4%) were married and were illiterate (63.9%). 115 of the elderly did not have any chronic diseases. As an indicated in Table 1, most of selected elderly had suitable levels of self-care behaviors and significantly had high status of self-esteem.

Mean ± SD of the total score of the elderly self-care were 127.99 ±12.230 and the total score of self-esteem was 21.8 ± 5.266. Also Mean ± SD of different aspects of self-care such as physical, psychological, emotional and spiritual self-care were (37.51±5.144), (18.99±3.260), (35.23±4.065) and (36.25±4.446) respectively. In the Table 2, association between the variables of self-care, self-esteem and age has been shown.

Regarding to Table 2, that shows a matrix network of Pearson association, self-care and self-esteem decrease as the age increases and also self-esteem of the elderly increases as self-care behaviors increase. Association between some de-

mographic agents with self-esteem and self-care behaviors that accomplished with Spearman test is shown in Table 3.

As an indicated in Table 3 elderly with higher level of education significantly had higher levels of self-care behaviors and self-esteem. Elderly who had not any chronic disease in past, had more self-care and self-esteem against of other elderly. Men had higher level of self-esteem and elderly who had ideal work and income, subsequently had higher self-esteem.

Variables	Scale	Number (%)
Self- care	Weak (34-67)	0
	Intermediate (68-101)	2(1.1%)
	Good (102-135)	20(66.7%)
	Excellent (136-170)	58(32.2%)
Self esteem	Weak (Lower than 17)	33(18.3%)
	Intermediate (17-21)	53(29.4%)
	Excellent (Above 21)	94(52.2%)

Table 1. Absolute and relative frequency of self- esteem and self-care of the elderly

Variables	1	2	3
1-Self-care	1		
2-Self-esteem	r=0.426 *p=0.003	1	
3- Age	r=-0.219 *p<0.001	r=-0.247 *p<0.001	1

Table 2. Association between age, self-care and self-esteem of rural elderly * significant at P<0.01

Variables	Sex	Marital status	Education	Employment	Income	History of disease
Self esteem	r=-0.169 *p=0.023	r=-0.163 *p=0.023	r=0.256 **p<0.001	r=0.224 **p=0.003	r=0.320 **p<0.001	r=0.260 **p<0.001
Self- care	r=-0.027 p=0.716	r=-0.140 p=0.060	r=0.240 **p<0.001	r=0.097 p=0.197	r=0.047 p=0.535	r=0.148 *p=0.047

Table 3. Association between some demogerafic variables with self-care and self-esteem. * significant at the 0.05 level. ** significant at the 0.01 level

4. DISCUSSION

The results of this study show the positive and direct effects of self-care behaviors on the elderly`s self-esteem. Magnitude feeling and mental needs is one of the most important demands of elderly, so it is necessary to improve the level of self-care behaviors of them. In accordance to this study, finding of studies show that there is a direct relationship between sport activities (doing exercises) and the elderly`s self-esteem (33). Other studies also confirm present results that there is direct and significant relationship between self-care program and self-esteem (22). Self-esteem is the stimulant agent of the person in order to stand against life problems (34). Consequently with promotion of self-esteem we can improve elderly spiritual and mental health. Based on a study, elderly with daily activity, significantly have more levels of self-esteem (35) that is parallel to our study. In another study, positive effect of sports and regular activities on elderly self-esteem was proved and also in another research, a direct and effective re-

lationship between the implementation of self-care programs and self-esteem of the elderly affected to multiple sclerosis was mentioned (36, 37). According to present results, there was an inverse relationship between age and self-esteem, also there was a direct relationship between economic conditions and self-esteem of elderly that is in a line to another study (38). Self-esteem is a determinant agent of the elderly, that how many pays attention to him/ her-self and it`s defined how the person perceive and feel in relation to his or her own abilities which is under the effect of different agents such as age, sex and economic condition (39). According to a study on nursing students, there was a direct relationship between marital and economic status and self-esteem that are parallel to our study (40). Of course, this study was done on nursing students and emphasizes on the effective relationship of the mentioned variables. Based on another study, there was a significant relationship between the level of education and economic status and daily activities of elderly which was in a line to present study (19). Contrary to this study, another research reveals no meaningful relation between increasing of the level of activities and self-esteem (41). Possible cause of this inconsistency can be various statistic populations that in this study elderly who lived in urban areas that had chronic diseases were used but in present study elderly of the rural areas with different environmental and existential conditions were selected which will affect the level of their self-esteem. Although, the research of Nir show no meaningful relationship between the increase of daily regular activities and self-esteem that is against to present study (42). The probable reason of this difference is the kind of population of the study, that In this study elderly affected to brain stroke were assessed that had more physical limitations. These limitations significantly effect the spirit and self-esteem of elderly. In another study that has done on adults, there was a meaningful relationship between positive sport exercises and their self-esteem and study on the school students in England revealed significant relationship between exercise and self-esteem that are parallel to present study (43, 44).

5. CONCLUSION

Generally, the findings of this study revealed that improving of self-care behaviors can promote the elderly's self-esteem. Under the positive effects of self-care behaviors, level of health will be increase. Subsequently reduced of medical expenses in societies and occurrence of diseases in families will be happening. In this stage the role of propaganda and training in sanitary centers in rural areas, also supporting of nurses are important. So, recommended that interventions such as doing regularly daily activities, healthy diet and stress controlling be done. Limitation of this study was absence of international standard questionnaire for assessment of elderly self-care behaviors.

6. SUGGESTIONS

It is suggested that some studies be done to codification of this questionnaire and regarding to the shortage of doing these kinds of researches throughout the villages of Iran, this study be implemented in other provinces or in the other countries around the world.

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