

Relationship between general health of older health service users and their self-esteem in Isfahan in 2014

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ABSTRACT

Background: Self-esteem is known to be one of the most important markers of successful aging. Older people's self-esteem is influenced by several factors that particularly may be health related. Therefore, this study aimed to explore some important general health-related predictors of the older people's self-esteem.

Materials and Methods: In this study, 200 people, aged 65 years and older, who referred to health care centers were selected through stratified random sampling method. Data were collected by using Rosenberg's self-esteem scale and the 28-item Goldberg's general health questionnaire. Data were analyzed by Pearson's coefficient tests and multiple regression analysis.

Results: Findings showed that the entered predictor variables accounted for 49% of the total variance (R^2) of self-esteem in the model ($P < 0.001$, $F_{4,195} = 46.717$). Three out of the four predictor variables including somatic signs, anxiety/insomnia, and depression, significantly predicted the self-esteem. The results emphasized on the determinant role of both physical (somatic signs) and mental (anxiety/insomnia and depression) aspects of health in older patients' self-esteem.

Conclusions: The significant general health-related predictors found in the present study emphasize on some of the significant points that should be considered in planning for improving older patients' self-esteem.

Key words: Aged people, general health, older adult, self-esteem

INTRODUCTION

The population of older people is growing worldwide.^[1] The dramatic increase in the number of aged people has been one of the main challenges for the health care system in the past two decades.^[2]

Responses of different communities to the global phenomenon of geriatric population growth focus on the concept of "dynamic aging."^[3] Today, providing and promoting the health of aged people is considered one of the most important examples of active aging.

The World Health Organization defined health in 1948 based on its vast dimensions of the entire physical, psychological, and social well-being, and not merely

the absence of disease or disability. Also, this definition describes physical, mental, social, and spiritual domains as a whole and integrated aim.^[4]

Despite the importance of such a holistic health care for the older people to approach active and successful aging, there are many factors that prevent the older people from achieving the World Health Organization's definition of health.

Although aging is not synonymous with disease and disability, older people are more predisposed to diseases, their complications, and mortality, compared to younger adults.^[5,6] Older people are prone to impaired mental health, especially, losing self-esteem due to changes in appearance and function, loss of relatives, incurring diseases and their complications, separation from their children, loss of job, and reduction of income, status, and identity. These difficulties make them be exposed to loss of self-esteem, and may finally lead to mental disorders and further morbidities and mortalities as well.^[7,8]

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According to the literature, self-esteem is one of the important issues of mental health, which has a determinant role in other aspects of an individual's health. It is defined as sense of self-worth, degree of adoption, approval, acceptance, and worthiness that a person has toward himself.^[9-11] It is one of the most important determinants of the older people's health. Evidences have revealed a relationship between self-esteem and older people's important life aspects such as successful aging and life satisfaction.^[12] Meanwhile, low self-esteem causes many psychological problems including isolation, apathy, and feeling of being alone. Low self-esteem leads to serious consequences such as physical problems, anxiety, and depression, especially in the older people, which may even result in their death.^[13] Nevertheless, such views have not been investigated in a study yet.

Hence, maintaining and promoting self-esteem in aged people has become one of the most important objectives and challenges in the health sector. In response to this challenge, some researchers have investigated the factors associated with changes in self-esteem in elderly patients. Some have highlighted the association between physical health and self-esteem, and even some researchers have attempted to promote the people's self-esteem by strengthening their physical condition.^[13,14]

Some other authorities have hypothesized that the psychological problems, mainly anxiety and depression, are the important predictors of self-esteem in older people. According to them, high prevalence of loneliness, loss of a spouse or a close family member, and an illness as well as subsequent stress, anxiety,^[15] and depression^[16] may predispose the older patients to the threat of self-esteem.^[13] Moreover, some experts believe that social functions have particular importance in the older peoples' health status and may work as a determinant of their self-esteem.^[17] Applying methods such as educational interventions, based on empowerment of older people, can improve their social functioning and mental health, and consequently, their self-esteem. With consideration of various factors determining the self-esteem of older patients, many researchers and decision-makers of health are trying to promote older people's mental health and self-esteem through various interventions.^[17-19]

Although there is bulk of useful information about the factors associated with the older people's self-esteem, there is no study investigating the predicting role of the general health domains in a single model. It would be beneficial if the relative importance of general health-related predictors of the older people's self-esteem is studied in an Iranian context. Hence, the present study investigated

the relationship between general health domains and self-esteem in the elderly.

MATERIALS AND METHODS

This is a cross-sectional study. The study population comprised 200 patients aged 65 years and older who went to 11 health care centers in Isfahan in 2014 in order to receive health care. They had health care files in the above-mentioned centers since a year before the study and were selected from each center by stratified random sampling method through a random numbers table with regard to the ratio of older people residing in that center.

After ensuring that all official and ethical requirements in the Isfahan University of Medical Sciences (IUMS) and health centers were met, a list of the subjects' names, their contact addresses and phone numbers was prepared. The elderly subjects were invited to come to the health care centers in the morning shifts of working days through phone calls. As the subjects were the elderly, the location for completion of the questionnaire was determined based on their suggestion or convenience. After explanation of the research design and goal and the way to complete the questionnaire to the subjects, as well as emphasizing on confidentiality of the information, the researcher distributed the questionnaires and the subjects filled the questionnaires personally in a quiet place. The subjects signed a written consent form to attend the study. Sampling lasted for 50 days from 15 Jan to 6 March. The data collected in this study were demographic and personal characteristics.

Self-esteem was investigated using Rosenberg's self-esteem questionnaire, which is a standard scale. This scale contains 10 items or phrases to measure individuals' worth and attitudes toward a real emotion concerning each item on a four-point Likert's scale (absolutely agree, agree, disagree, absolutely disagree) with scores of 1–4 and a total score of 10–40 points. The higher scores indicate higher self-esteem of older people. Reliability and validity of Rosenberg's self-esteem questionnaire have been confirmed in several Persian studies. Alizadeh reported its reliability and validity as 0.73 and 0.74, respectively.^[20] Shahbazzadegan *et al.*, in their study on older people, supported its internal consistency ($\alpha = 0.85$).^[13]

General health domains were investigated using the 28-item general health questionnaire (GHQ-28). This questionnaire is composed of four subscales that have seven items: Questions 1–7 are related to somatic symptoms, 8–14 are related to anxiety and insomnia, 15–27 are related to social and functional disorders, and the questions 22–28 are about depression subscale. The scoring method is based

on a four-point Likert's scale with a total score of 0–84 and a maximum score of 27 for each subscale. Lower scores indicate better mental health.^[21]

Reliability and validity of the general health questionnaire were assessed and established in several studies. For instance, Malakuti reported Cronbach's alpha of 0.71 for somatic symptoms, 0.85 for anxiety, 0.89 for social function, and 0.89 for depression.^[22]

Data analysis

In addition to descriptive statistics (percentiles, mean, and standard deviation) and Pearson's correlation coefficient test, linear multiple regression was mainly used for analysis. This was used in order to investigate the effects of somatic signs and symptoms, anxiety and insomnia, social dysfunction, and depression on self-esteem.

Before linear multiple regression, it was checked whether the data met the key assumptions of performing regression analysis or not. For each of the four predictor variables, the tolerance statistic was found as >0.20. The variance inflation factor was <10, indicating absence of multicollinearity. Moreover, the Durbin–Watson statistic was between 1 and 3, indicating independence of error.

Multiple linear regression analysis was conducted and presented using non-standardized coefficient (B), standardized coefficient (β), R2 and F values to depict the prediction model of self-esteem based on subscales of the GHQ-28 questionnaire. Version 19 of Statistical Package for Social Sciences (SPSS) was used for all analyses, and all analyses were two-tailed with a significance level of 0.05.

RESULTS

Statistical analysis

The means, standard errors, and inter-correlations between the main variables are presented in Table 1. The results show that there was a high inter-correlation between all the variables included in the study ($P < 0.01$) [Table 2]. It has to be noted that the total GHQ-28 score, obtained by summing up the scores of the four subscales, showed a significant inverse relationship with the scores of the self-esteem scale ($r = 0.687, P < 0.01$).

Multiple regression analysis was applied to investigate the effects of somatic signs and symptoms, anxiety and insomnia, social dysfunction, and depression on self-esteem. Findings showed that the entered predicting variables accounted for 49% of the total variance (R^2) of self-esteem in the model ($P < 0.001, F_{4,195} = 46.717$).

Moreover, it was found that three out of four predictor variables, including somatic signs, social dysfunction, and depression, significantly predicted self-esteem. Only one entered variable had no significant effect on the criterion variable [Table 3].

The negative signs of the β coefficients imply an inverse relationship between the scores of the above-mentioned significant predictors and the criterion variable of self-esteem.

DISCUSSION

The findings of this study conducted with the aim of investigating the relationship between general health domains with self-esteem in older people indicate that the general health of older people predicts their self-esteem. Some previous studies conducted in different age groups to

Table 1: Demographic data and personal characteristics

Variable	Terms	Frequency (%)
Sex	Female	118 (59)
	Male	82 (41)
Marriage	Married	156 (78)
	Single	42 (21)
	Divorced	2 (1)
Job	Unemployed	10 (5)
	Pensionary	68 (34)
	Employee	2 (1)
	Laborer	2 (1)
	Employed	15 (7.5)
	Homemaker	103 (51.5)
Income	Without income	13 (6.5)
	Income lesser than expenses	35 (17.5)
	Same as the expense	150 (75)
	More revenue than expenditure	2 (1)
Status of financing	Supporting institutions	14 (7)
	Pay	171 (85.5)
	Subsistence through child	15 (7.5)
Literacy	illiterate	68 (34)
	Primary education/Middle school	92 (46)
	Diploma	32 (16)
	Post diploma/Bachelor	5 (2.5)
	Higher than bachelor degree	3 (1.5)
Variable	Mean (standard deviation)	
Age	67.71 (7.73)	
Number of children	4.91 (2.04)	
Months of living in hospice	0.01 (0.14)	
Days of hospitalization	4.78 (6.95)	
Years of chronic disease	4.82 (4.15)	

Table 2: Mean, standard error, and inter-correlation between key variables (N=200)

Variables	Mean (SE)	Correlation coefficients					
		1	2	3	4	5	6
Somatic signs	3 (0.2)	1					
Anxiety/insomnia	4.1 (0.2)	0.719**	1				
Social dysfunction	7.2 (0.13)	0.650**	0.572**	1			
Depression	0.92 (0.19)	0.583**	0.644**	0.571**	1		
Total GHQ score	15.1 (0.63)	0.878**	0.896**	0.777**	0.828**	1	
Self-esteem	30.4 (0.27)	-0.595**	-0.567**	-0.621**	-0.551**	-0.687**	1

**P<0.01

investigate the relationship between self-esteem and general health reported similar results. For instance, in the study of Rabie *et al.*,^[17] the results indicated a significant positive relationship between general health and the older people's self-esteem. Also, Xu *et al.*,^[23] in a study on a population of 18–60 year olds, showed that those who had a better mental health had higher level of self-esteem, compared to those experiencing mental health problems.

Studies in other age groups have emphasized on a positive correlation between the health dimensions and self-esteem. Abbott^[24] found that the women who had a better health had higher self-esteem compared to women who had poor health. Zare *et al.*,^[25] in a study on people of other age groups, showed that there was a significant positive correlation between general health and self-esteem.

In addition, the findings of the present study with regard to investigating the predictive role of each domain of general health in older people's self-esteem showed that the social function domain of older people had a major role in the criterion predicting variable. Hojjati *et al.*^[26] argue that there is a significant positive correlation between the loneliness resulting from the gaps in social relation networks and lack of access to proper relationship with others, and aged people's satisfaction in life. They also believe that every effort leading to elimination of aged people's loneliness is a barrier against the complex psychological problems and increases the self-esteem in them. The results of the studies in this field have confirmed these arguments. Nanthamongkolchai *et al.*,^[27] in a study on old women, showed that the families' relationships, social activities, and social supports can predict the older people's self-esteem. Also, Sönmez *et al.*^[28] found that the social function improved by increasing the self-esteem through a medical intervention. In addition, similar studies in other age groups have emphasized on the predicting role of social functions in promoting self-esteem. Parys *et al.* reported that the individuals who were able to maintain their networks throughout their life could construct a sense of confidence.^[29]

Table 3: Results of multiple regression analysis to assess the effects of included variables on self-esteem

Variable entered	Statistical indices				
	B	β	Sig.	CI	
				Lower bound	Upper bound
Somatic signs	-0.243	-0.184	0.025	-46	-0.03
Anxiety/insomnia	-0.157	-0.122	0.133	-0.36	0.05
Social dysfunction	-0.709	-0.331	0.000	-1	-0.41
Depression	-0.284	-0.192	0.006	-0.49	-0.08

CI: Confidence interval

Thus, according to the above-mentioned studies, compromising the relationships and social functions is associated with self-esteem. Hence, it can be concluded that we can promote self-esteem and benefit from its favorable impacts, especially in the elderly patients, by strengthening their social functions through the development of social support networks and interpersonal relationships. Another finding of the present study was the significant inverse association between the domain of depression and self-esteem of the older people. The importance of this finding is that evidences show that the elderly are prone to depression due to reasons such as losing their relatives and being far from them, development of physical chronic diseases, taking various medications, loss of cognitive ability, etc. Different studies have investigated the mental health and its related disorders such as depression as well as its relationship with self-esteem and reported results in line with the present research. For example, Rivera-Hernandez,^[30] in her study on older diabetic people, supported the significant relationship of depression and self-esteem. Also, Fathi Ashtiani *et al.*,^[31] in study conducted on another population, showed that there was a negative correlation between depression and self-esteem and that depression was one of the predicting factors of self-esteem. These findings highlight the importance of mental health promotion and also preventing and treating depression in the older people as an appropriate action to improve their self-esteem. Nevertheless, we suggest further studies to assess the impact of such interventions.

Another important finding of the present study is that it showed a significant positive correlation between physical symptoms of general health and self-esteem in such a way that better physical health resulted in a higher self-esteem in the elderly. The relationship between the status and physical symptoms has been supported and focused by some studies, and some researchers have achieved an appropriate self-esteem through strengthening patients' physical status. This finding is consistent with the studies of Shahbazzadegan *et al.*^[13] and Ansari Jaberi *et al.*^[14] who investigated the effect of physical activity on self-esteem. In all of these studies, the positive significant relationship between the older people's physical activities and health status and their self-esteem has been supported. Similarly, the results of the present study suggest that impaired health status in older patients can threaten their self-esteem. This inference is also supported by some studies. For example, the results of the study on elderly women by Nanthamongkolchai *et al.*^[27] showed that physical health problems can predict self-esteem.

Other significant findings of the present study suggest that the domain of anxiety and sleep disorder of aged people cannot predict self-esteem. According to the Enache,^[32] anxiety is often associated with feelings of disability and uncertainty, and can lead to low self-esteem. Bengtsson *et al.*,^[33] in a study on a population of 18–82 year olds, showed that those with higher levels of anxiety had lower levels of self-esteem. According to some evidences, the prevalence of stress and anxiety in the older people is notable for many reasons. Contrary to the findings of the present study, some evidences emphasize on the role of anxiety in predicting self-esteem.^[17,19] Such a contradiction may be attributed to the different context of the present study. Therefore, further studies with the aim of investigating the relationship between anxiety and sleep disorder in older people and their self-esteem, as well as the effect of interventions on reducing anxiety to improve self-esteem in the older people are recommended.

The limitations of this study should be considered in the interpretation of the results. Relatively low sample size, along with some participants' failure to understand the precise meanings of the questions in the questionnaires, despite researcher's presentation, were some of the limitations of this study.

Conclusion and recommendation

The results emphasized on the determinant role of both physical and mental aspects of health in older patients' self-esteem. Therefore, it is suggested to improve awareness of the health professionals, older people, and community about the general health-related factors in order to maintain and improve their self-esteem. This may play an important

role in the older peoples' self-esteem, thus improving their health. We suggest future researches to investigate the effects of managing older patients' general health-related problems on their self-esteem.

Ethical considerations

The study was approved by the IUMS research committee (392560). Participants signed an informed consent, and were given written information and ensured that their participation would be voluntary. Moreover, they were ensured about the confidentiality of their information.

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