



## Original Article

# The Study of Self-Assessed Health among Elderly Women in Shiraz and Yasuj Cities

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### ABSTRACT

#### Article history

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**Introduction:** Women are facing inequalities including health, thus their health deserves attention. Investigating people's health status from their viewpoints is an important measure in terms of public health of society and an indicator to determine the efficiency of health system. This study aimed at evaluating the self-assessed health of older women living in Shiraz and Yasuj.

**Methods:** This was a cross-sectional study on elderly females over 65 years living in Shiraz and Yasuj. A questionnaire was applied to collect data from 380 subjects who were selected by cluster random sampling method. Data analysis was performed through SPSS software in two levels of descriptive and inferential.

**Results:** The mean score of total self-assessed health was  $72.02 \pm 13.6$ , and 63.8% evaluated their health status as moderate. The mean scores for physical health, anxiety, social function, and depression subscales were  $14.52 \pm 4.97$ ,  $18.02 \pm 5.77$ ,  $18.29 \pm 4.48$ ,  $21.11 \pm 4.27$ , respectively. Age, education, marital status, disease history, and self-esteem were significantly associated with self-assessed health.  $R^2$  determination coefficient also indicates that 31.8% of changes in self-assessed health scores are explained by self-esteem, disease history, education, and marital status.

**Conclusion:** Infrastructure to maintain the traditional values in the field of social relations and strengthen the family ties between the elderly and their family members can increase their self-esteem by reducing social isolation, and help them improve their health, especially in psychological dimension.

**Keywords:** Health, Ageing, Correlate

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#### Introduction

More than half of the world's elderly population includes women who mostly live in developing countries and this ratio will increase considerably in the future. The ratio of older women population to the general women population in Iran has increased from 3% to 4.1% in the last two decades and this rate has augmented to 7% in the recent census. It is also predicted that this trend will continue to increase in next decades (1).

Health, undoubtedly, is the most important aspect of life; the question that human being has always tried to achieve. One of the major problems to this goal, especially in the elderly, is to understand the concepts

related to health, illness, and correct attitudes towards health. Since being aware of common concepts in this field is required for more effective planning, therefore, obtaining the concepts related to health and disease and their dimensions are considered as essential issues (2). Furthermore, health has a key role within the conceptual framework of sustainable development because sustainable development is nothing but satisfying people's living conditions. Without health, no one will be satisfied with life since it plays a central role in the social development and welfare of societies, in the same regard, health study has become increasingly important.

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Self-assessed health is one of the most common types of health status determination in the elderly from the mental viewpoint because it can examine various aspects of health. It somehow attends to different aspects of health that are recommended by the World Health Organization (3).

The concept of self-assessed health has been used in different researches since 1950 and then its usefulness in showing the elderly health status as well as predicting their future health has been confirmed (4). Self-assessed health alone enjoys paramount importance in a society since it is in a way an indicator of health status in social settings and more exactly a representative of health feeling in individuals which as cited in conducted studies has a direct relationship with death (5). Additionally, self-assessed health can even be a useful measurement tool in determining vulnerable older adults (6).

Previous studies suggests that researchers have examined the relationship between self-assessed health dimensions and many other factors such as economic status (7), illness experience and even mere physical health (8-10), education (8, 11), and psychological factors including self-confidence (12). But the physical dimension of health has been concerned more in these studies, while the psychological and social aspects were noted less (13). Hence, due to poorer psychological health than physical status in elderly, their psychological and physical health is seems essential to be investigated in a common sense of research (14). The study of self-assessed health in physical, psychological, and social aspects among certain groups such as older women who are more vulnerable to social and regional inequalities, such as inequalities in health domain, not only can provide us useful information about their health status and efficiency of health and medical policies, but also it has the capability to be used as a base for planning and setting proper policies to modify and enhance women condition. Therefore, the goal of this study is conducting a comparative study of women's self-assessed health living in Shiraz as a cosmopolitan and developed city and Yasuj as a less developed one.

## Methods

### *Participants and procedures*

In this inferential study, a cross-sectional design was adopted to answer research questions. Sample size was determined 380 people according to Cochran's formula. Participants were women aged over 65 years from Shiraz (200 women) and Yasuj (180 women). According to cluster random sampling, the participants were selected from 10 urban districts in Shiraz and four in Yasuj. The data were gathered by a structured questionnaire. The participants were asked to participate in the study after the research purposes were explained to them. All participants filled out the questionnaires voluntarily.

### *Instrument*

Data collection tool was a three sections self-report questionnaire including demographic variables of age, marital status, education level (number of passed classes) and history of disease, self-esteem, and self-assessed health. To measure self-esteem and self-assessed health, Eight-item Rosenberg Self-Esteem Scale (RSES) (15) and 22-item Persian General Health Questionnaire (GHQ-22) (16) were used, respectively. GHQ-22 measures the health status in four dimensions of physical health, anxiety, social function, and depression (Table 1). Face validity of the questionnaire was examined and approved. Moreover, in a pilot study with 40 respondents, internal consistency of the RSES and the GHQ-22 was derived 0.87 and 0.75, respectively.

### *Data analysis*

The data were analyzed by SPSS at two descriptive and inferential levels. For this, parameters such as mean and standard deviation and analytical tests including Pearson's correlation coefficient, analysis of variance (ANOVA), and multivariate stepwise regression were used.

## Results

The mean age of the participants was 70.93 (6.85) years; Most (76.0%) of the participants from Yasuj were married and the least (3.0%) divorced while 63.0% of the participants from Shiraz were widowers and only 3.0% divorced. Most participants from Yasuj and Shiraz (78.0% and 80.0%, respectively) were 65-74 years and the least (3.0% and 2.0%, respectively) were over 95 years.

The mean score of self-assessed health was 72.02 (13.66) and 14.52, 18.02, 18.29, and 21.11 for physical health, anxiety, social function, and depression; respectively. The mean score of depression was higher than other subscales overall and in the participants of each city (Table 1). Overall, 63.8% of the participants assessed their health to be moderate.

According to the findings, there was an inverse significant association between age and the scores of self-assessed health in the participants of each city. This association was more marked in Yasuj than Shiraz ( $r = -0.221$  vs.  $-0.160$ ). As well, the scores of self-assessed health declined with increase in age in the participants from Yasuj for all subscales except anxiety. (Table 2)

ANOVA demonstrated a significant difference between the mean scores of self-assessed health by marital status in the participants' of both cities (Shiraz:  $F = 6.34$ ,  $df = 3$ ,  $p < 0.001$  & Yasuj:  $F = 4.81$ ,  $df = 3$ ,  $p < 0.05$ ) and also in overall. ( $F = 5.11$ ,  $df = 3$ ,  $p < 0.05$ ). Besides that, education and the self-assessed health scores were significantly associated overall and in the participants of each city. Education and the self-assessed health scores were significantly associated with physical health, anxiety, and depression in

participants from Shiraz and for all subscales except depression in participants from Yasuj. This association was more marked in the participants from Shiraz. (Table 3)

Self-esteem and self- assessed health scores were significantly and directly associated overall and in the

participants of each city. In the participants from Yasuj, self-esteem was not significantly associated with physical health subscale while in those from Shiraz, self-esteem was significantly associated with all subscales of self-assessed health. (Table 4)

**Table 1. Descriptive parameters of self- assessed health scores and its subscales**

	Physical Health	Anxiety	Social function	Depression	Self-assessed health total
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
<b>Shiraz</b>	15.69 ± 5.12	17.01 ± 5.16	20.03 ± 4.95	21.06 ± 3.96	74.20 ± 14.32
<b>Yasuj</b>	13.35 ± 4.14	19.02 ± 5.28	17.19 ± 3.29	19.96 ± 4.51	70.65 ± 12.11
<b>Total</b>	14.52 ± 4.97	18.02 ± 5.77	18.29 ± 4.48	21.11 ± 4.27	72.02 ± 13.66
<b>Number of items</b>	5	6	6	5	22

**Table 2. Correlation coefficients between self- assessed health scores and age**

City		Self-assessed health total	Subscale			
			Physical Health	Anxiety	Social function	Depression
<b>Shiraz</b>	r	-0.160	-0.045	0.040	-0.196	-0.031
	p	0.040	0.004	0.569	0.006	0.034
<b>Yasuj</b>	r	-0.221	-0.117	0.186	-0.148	-0.129
	p	0.003	0.018	0.013	0.047	0.008
<b>Total</b>	r	-0.279	-0.178	-0.069	-0.160	-0.158
	p	0.013	0.012	0.001	0.002	0.001

**Table 3. Correlation coefficients between self- assessed health scores and education level**

City		Self-assessed health , Total	Subscale			
			Physical Health	Anxiety	Social function	Depression
<b>Shiraz</b>	r	0.259	0.271	0.213	0.076	0.167
	p	0.001	0.001	0.003	0.289	0.021
<b>Yasuj</b>	r	0.175	0.216	0.141	0.127	0.031
	p	0.001	0.001	0.012	0.040	0.419
<b>Total</b>	r	0.238	0.233	0.122	0.199	0.088
	p	0.001	0.001	0.018	0.001	0.092

**Table 4. The correlation coefficients between self- assessed health scores and self esteem**

City		Self-assessed health, Total	Subscale			
			Physical Health	Anxiety	Social function	Depression
<b>Shiraz</b>	r	0.622	0.353	0.454	0.337	0.623
	p	0.001	0.001	0.001	0.001	0.001
<b>Yasuj</b>	r	0.360	0.081	0.213	0.281	0.431
	p	0.001	0.285	0.004	0.001	0.001
<b>Total</b>	r	0.503	0.231	0.333	0.321	0.513
	p	0.001	0.001	0.001	0.001	0.001

The self-assessed health scores and disease history were significantly and inversely associated, i.e. the self-assessed health declined with increase in disease history. Table 5 shows the results of univariate regression of these two variables in all the participants and each city. As seen, disease history explained 23.6% of the variance in the self-assessed health scores.

To investigate cumulative and unique effects of independent variables on dependent variable, multivariate stepwise regression was used. Initially, R<sup>2</sup> of self-esteem was derived 0.251. In the second, third, and fourth steps, the explained variance increased by 0.47, 0.13, and 0.07 after inclusion of disease history, education, and marital status, respectively. Self-esteem was found to have the greatest unique effect on the self-assessed health scores (Table 6).

### Discussion

According to regression analysis, approximately 31.8% of the variance in the self-assessed health scores could be explained by four studied socio-demographic variables. The highest proportion of variance was explained by self-esteem followed by disease history, education, and marital status. Older people's positive or negative perceptions of health can influence their health and even healthy lifestyle. Social assessments help older people to figure out old age and consequently affect their self-esteem. This is consistent with Lucas et al. study reporting a significant association between self-confidence and health (12).

Because low self-esteem is associated somehow with self-inferiority, and may take people's courage to make changes and lead to depression, then it seems necessary to promote self-esteem through appropriate strategies. Another finding of the present study was the significant, inverse association between disease history and self-assessed health in older women. Consistent with this study, Haseen reported chronic

disease to be a factor for declining self-assessed health (9). Wu et al. and Sharifzadeh et al. have reported similar findings, as well (7, 8).

The findings demonstrated that the score of depression was higher than other subscales and the lowest score was for physical health in the studied women. Moreover, self-esteem was found to play an important role in the older women's health. Therefore, enhanced self-esteem and self-confidence can contribute to promoting health in older women.

Conversely, disease history was found to be inversely associated with health. This finding highlights planning for appropriately dealing with prevalent diseases and problems in old age. In this study, age and self-assessed health were significantly and inversely associated, which is consistent with Vahdaninia et al. and Baljany et al. studies (5, 11).

Besides that, marital status and self-assessed health were significantly associated, in agreement with Lucas et al. study (12). Married people are likely not to suffer many mental disorders and pressures and stress, which can affect their self-assessed health.

In addition, education was significantly associated with self-assessed health, which is consistent with Baljany et al. study (11). Through enhancing knowledge about different domains, education can contribute to health and healthy lifestyle and hence self-assessed health.

Overall, according to the findings, despite some differences in the self-assessed health scores between older women in Shiraz and Yasuj, it was estimated moderate in the older women of both cities. The associated variables with self-assessed health were somehow different in terms of how and to some extent these variables do affect self-assessed health between the older women in Shiraz and Yasuj. Although age was significantly and inversely associated with self-assessed health in the older women in both Yasuj and Shiraz, age more markedly affected negatively self-assessed health among the older women from Yasuj. This finding was also applicable to the association of education and self-esteem with self-assessed health.

**Table 5. Univariate regression analysis of Diseases history and self-assessed health score**

Variable		Standardized coefficients $\beta$	t	p	r <sup>2</sup>
Diseases history	Shiraz	-0.279	-4.02	0.001	0.078
	Yasuj	-0.221	-2.99	0.003	0.049
	Total	-0.236	-4.65	0.001	0.056

**Table 6. Multivariate regression analysis of demographic variables as predictors of self-assessed health scores**

Stage	Variable	r	r <sup>2</sup>	Std. Error of the Estimate	f	p
1	Self esteem	0.501	0.251	11.69	119.67	0.001
2	Diseases history	0.546	0.298	11.33	75.67	0.001
3	Education	0.557	0.311	11.24	53.34	0.001
4	Marital Status	0.564	0.318	11.20	41.34	0.001

Older women with higher self-esteem and education in Shiraz had better self-perceptions of health than those in Yasuj, i.e. valuable socio-cultural and even psychological sources, such as education and self-esteem, may affect self-assessed health differently in different socio-cultural contexts. It seems that this difference is due to different sociocultural contexts of the two studied cities. The older women in Yasuj live in a community which is less developed, tradition-oriented, and relatively unprelived and most of the residents are people from Lor minority. Therefore, women in Yasuj are more likely to suffer socio-cultural and health inequalities. In such communities, traditional and mainly patriarchal attitudes towards women's social roles and status are dominant and older women have low levels of self-assessed health because of, likely, doing excessive physical activities. In contrast, older women in Shiraz live in a more developed and modern community where social attitudes towards women's role and status have partly changed so that women are able to empower themselves and have better perceptions of themselves and their health and hence better quality of life. Therefore, women's similar sources might have different contributions to self-assessed health in the two communities. To exert positive effects, these sources seem to face various obstacles in Yasuj, in contrast to fewer obstacles in a more modern urban community such as Shiraz.

### Conclusion:

Because of high scores of depression in the studied older women and since old age can be associated with isolation, inability, and chronic disease, the necessity of social support increases in significance in this age group. As a result, paving the way for maintaining social values and reinforcing family relationships between the elderly and their family members can lead to promoting health, especially mental health, through reducing social isolation and promoting self-esteem in older women. Providing opportunities to do volunteer activities can be an effective approach. Enhancing the elderly's and their families' knowledge, an enabling factor, can also help the elderly have higher level of self-assessed health at incidence of diseases, pressures, and stresses in life.

In addition to micro strategies, developing and implementing national, integrated plans and policies with emphasis on the elderly's health seems necessary. Approval of supportive laws regarding older women's health, support of their families, constant assessment of older women's health, and qualitative enhancement of offering services to them are some strategies that can help to promote health among older women. Meanwhile, further studies investigating the elderly's needs assessment and socio-demographic and cultural characteristics can greatly help to plan comprehensively for this age population.

### Study limitations

Health is a social concept which is socially constructed and greatly influenced by a community's sociocultural context. Therefore, not only health perception but also self-assessed health may be different in different communities. Accordingly, the older women in the two cities under study can be somehow different in self-assessed health potentially causing some other differences in the findings. These differences and sociocultural diversities can limit the generalization of the present study findings to other communities. Therefore, more reliable findings can be obtained if self-assessed health scales are developed according to the specific sociocultural context of each community.

### Conflict of interest

Authors declare that there is not conflict of interest.

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