



# The relationship between social support and happiness in older adults referred to health centers in Zarrin Shahr, Iran

Zohreh Beygi<sup>a</sup>, Mahnaz Solhi<sup>b,\*</sup>, Seyed Fahim Irandoost<sup>c</sup>, Agha Fatemeh Hoseini<sup>d</sup>

<sup>a</sup> Health Education and Health Promotion, School of Public Health, Iran University of Medical Sciences, Tehran, Iran

<sup>b</sup> Health Promotion Research Center, Iran University of Medical Sciences, Tehran, Iran

<sup>c</sup> Department of Community Medicine, School of Medicine, Urmia University of Medical Sciences, Urmia, Iran

<sup>d</sup> Department of Biostatistics, School of Public Health, Iran University of Medical Sciences, Tehran, Iran

## ARTICLE INFO

**Keywords:**  
social support  
Happiness  
Older adults

## ABSTRACT

**Background:** Creasing the older adult population has become a major public health challenge. Social support plays an important role in people's health. Social support helps improve the living conditions of the elderly and brings happiness into the lives of the elderly. This study aimed to investigate the relationship between social support and happiness status in 60–75-year-olds referred to health centers of Zarrin Shahr, Iran in 2019.

**Methods:** In this cross-sectional study, 584 samples (female: 62.2%, men: 37.8%) participated in this study. To collect data for this study, Oxford Happiness, and Social Support questionnaires were used. The older adults of the target group were selected through simple multistage random sampling from the health centers of Zarrin Shahr. The collected data were entered into SPSS software version 22. They were described and analyzed by inferential statistics and regressions at a 95% confidence level.

**Results:** Sex, marital status, and level of education influenced total social support ( $P < 0.05$ ). Moreover, age, marital status, and level of education affected happiness ( $P < 0.05$ ). There was a significant positive correlation between total social support and components of social support with happiness ( $P < 0.05$ ). Also, the multi-stage regression test showed emotional social support and education level were highly correlated with happiness ( $R^2 = 0.265$ ).

**Conclusion:** The results highlight the need to increase social support for older adults because it can increase the level of happiness in this age group. In interventions to improve the social support and happiness of older adults, low-educated, unmarried, divorced, or deceased spouses should be prioritized.

## 1. Introduction

Fertility and mortality rates have declined in recent decades around the world. This decline has increased the number of older adults [1]. In 2017, there were 692 million people over the age of 60 in the world, which is expected to reach more than 2.1 billion people in 2050 [2]. Population growth rates in developing countries have increased. It is predicted that the population of older adults in these countries will reach 85% of the total population in 2050 [3]. Also, Iran follows this trend. The process of growing the aging population in Iran has begun in 1986. The results of the Iran census in 2017 showed Iran's older adult population is about 4.9 million

\* Corresponding author.

E-mail address: [solhi.m@iums.ac.ir](mailto:solhi.m@iums.ac.ir) (M. Solhi).

<https://doi.org/10.1016/j.heliyon.2023.e19529>

Received 21 September 2020; Received in revised form 18 August 2023; Accepted 25 August 2023

Available online 29 August 2023

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people and the share of the 65-year-old population was 6.1% [4]. According to United Nations According to the UN forecast, Iran's population will reach 30 million people in 2050 [2].

The quality of life of older adults has important factors such as social support and happiness. Social support is a service that responds to all social, and psychological needs of the individual and includes a variety of emotional, instrumental, informational, and evaluative support [5,6]. Aging alone may not change life satisfaction per se. Factors such as lower education and lower income can lead to lower life satisfaction [7]. Social support is referred to as a predictor of desirable health outcomes. That is, it reduces the risk of death from causes, promotes physical and mental health, and reduces the risk of cognitive decline and dementia [8]. As older adults have few social relationships and are more vulnerable, paying attention to the older adults is important. Social support adjusts the psychological pressure on a person and improves his health. Social support is related to reducing the probability of developing disease conditions, especially cardiovascular diseases and cancer. Also, social support can reduce the harmful effects of stressful stimuli on the body's immune system [9,10].

According to some studies, having only a few public contacts may aggravate inability and decrease physical action, decrease realization of quality of life, and thus increase symptoms of depression [11]. Engaging in social activities and relationships with other people, can have a healing effect and reduce mortality. Social activities can bring health to older adults [12].

Unfortunately, according to the World Happiness Report, Iran was named as the 107th happiest country among 155 countries in 2017. Iran's happiness rate is lower than its neighbors, such as Turkey, Pakistan, Azerbaijan, and the Arab world [13]. If people are happy, they see the world as a safe place where they can collaborate and help people [14]. Life satisfaction is important in all age groups, but it is more important for older adults because older adults do not actively participate in community activities and lose their roles and status [15]. Some studies say that age is an important factor in older adults that should be taken into account as the level of happiness decreases with age [16]. Happiness is a positive feeling situation that differs from person to person and is defined by each person differently [17,18].

Although a fixed level of happiness is inherited, living conditions (such as living in different places and with different races), demographic factors (such as age groups, being male or female, education level, and high or low-income level), and recreational activities (such as sports, recreational and artistic activities) may also affect happiness and increase or decrease it [16]. High social support can increase happiness among older people. The degree and amount of social support have been identified as determinants and predictors of happiness among older adults [13]. A greater number of chronic illnesses can reduce people's happiness by preventing them from being present in the community [19]. Participating in leisure activities that accompany them happily has many benefits, such as making people feel useful and resilient to problems, which increases their life satisfaction [20].

One of the effective factors related to happiness in various research has been social support [13,21,22]. Social support is provided by a network of people and social groups and increases the level of happiness [23].

Considering the increase in the older adult population in the country as well as in the city of Zarrin Shahr and the extensive changes in the lifestyle and changes in the quality of life caused by these changes, it is important to pay attention to happiness and the relationship of social support with it. Based on the review of the literature and research in this field, it seems that the relationship between social support and the happiness of older adults has been less investigated and no research has been done in this field. Most of the research in Iran has compared the happiness of older adults living in homes or nursing homes or has measured the relationship between cultural, economic, and religious factors with happiness. Zarrin Shahr is the center of Lanjan City in Isfahan province in Iran. This city has 5 health centers. About 4674 older adults' men and women aged 60–75 years go to these centers to receive services. Despite the existence of similar studies due to the lack of information about the elderly repeating the present study in different time and place conditions in Iran can provide useful and comparable results. There was no data about the level of social support and happiness and the relationship between the two in these older adults in Zarrin Shahr. One of the researchers of this study also works in one of the health centers of this city. So, this study was conducted to determine the relationship between social support and happiness in older adults who refer to the centers of Zarrin Shahr in Iran in 2019. In this study research objects were determined.

**RO1.** Demographic characteristics of the older adults (gender, education level, marital status, having insurance, occupation)

**RO2.** Average score of social support and its dimensions in the older adults

**RO3.** Average score of happiness in the older adults

**RO4.** The influence of different dimensions of the social support model on happiness in the older adults

**PO5.** The effect of demographic variables on social support (its dimensions)

## 2. Methods

### 2.1. study population and sample size

This is a cross-sectional study. The statistical population of the study consisted of 4674 people aged 60–75 years who were covered by health centers in Zarrin Shahr according to the statistical results of 2016. Through the Cochran formula, the sample size was 484 people. Considering the impact factor of 1.2, the number of samples is estimated at 584 people aged 60–75 years old.

The samples were selected by cluster sampling method. In the first stage, 3 centers were selected among 5 healthcare service centers by cluster sampling method. In the second stage, 584 older adults were selected from the list of older adults of the selected centers by simple random sampling based on the inclusion criteria. Inclusion criteria were: willingness to participate in the study, age 60–75 old,

being a resident of Zarrin Shahr, and ability to have verbal communication and answer the questions. Optimal cognitive preparation based on information from health records. Reluctance to participate in the research, inability to complete the questionnaire, and having cognitive disorders and psychiatric disorders based on the medical record were also considered as the exclusion criteria.

## 2.2. questionnaire/data collection

In this study, social support was assessed through a researcher-made questionnaire which was conducted. In 2018 [13]. The questionnaire includes 26 items and has 4 domains (emotional, instrumental, informational, and evaluative). Some sample questions are.

- Who can you count on to listen to you when you need to talk?
- Who could you count on to help you if a person whom you thought was a good friend insulted you and told you that he/she didn't want to see you again?
- Whose Lives do you feel that you are an important part of?
- Who do you feel would help you if you were married and had just separated from your spouse?
- Who could you count on to help you out in a crisis, even though they would have to go out of their way to do so?

Emotional support, informational support, instrumental support, and evaluation support, respectively, consisted of 10, 8, 5, and 3 questions. Scoring for the Social Support Questionnaire, according to the three-point Likert scale, ranged from zero to two. The lowest score on the test is 0, and the highest is 52. A high score obtained by the respondents on this scale indicates that they receive desirable support. To measure the reliability of the Social Support Questionnaire, a pilot study was conducted on 30 elderly people from the given population. A Cronbach's alpha of 90% was obtained. To determine the content validity of the adapted instrument, it was submitted to 10 health education and promotion specialists for review. Finally, a content validity ratio of 78% and a content validity index of 76% were obtained [13].

The Oxford Happiness Questionnaire was used to assess happiness. The questionnaire measures personal happiness and includes 29 questions. Some of the questions are.

- I have very warm feelings toward almost everyone.
- I rarely wake up feeling rested.
- I am not particularly optimistic about the future.
- I find most things amusing.
- I am always committed and involved [13].

Each item of the Oxford Happiness Questionnaire has 4 items and scores from 0 to 3. The highest score that indicates the highest happiness is the number of 87. The lowest score (i.e., 0), indicates the lowest happiness. The normal score is 40–42 [24]. The validity of this questionnaire was confirmed in the research of Alipour and Agah Heris (2007) and Cronbach's alpha was 88% [23].

## 2.3. Research procedure

First, the necessary arrangements were made with the authorities, and permission to conduct research was obtained. The samples were selected and called from the health centers. They were explained about the purpose of the research and how to complete the questionnaires. Written informed consent was obtained from the sample. Samples completed the questionnaire Self-administered. In the case who did not have enough literacy to complete the questionnaire, it was completed by the researcher by interview. The duration of completing the questionnaire for each sample was 40 min on average.

## 2.4. Data analysis

After collecting the questionnaires, the data were entered into SPSS software (Version 22, SPSS Inc., Chicago, IL). Demographic characteristics, average scores of happiness, social supports, and its domain in older adults are described by indexes such as number, percentage, mean and standard deviation. Pearson Correlation Coefficient test was used for considering the Correlations between Happiness and social support, the domain of social support. ANOVA test and Mann-Whitney *U* test were used for determining Associations between Total social support and Happiness with Demographic characteristics. The normality of the variables was checked based on the Smirnov Kolmogoroff test, and if they were not normal, non-parametric tests) Mann-Whitney and Spearman tests (were used.

## 3. Results

The results of the study are presented based on research objects as the sub-titles below.

### 3.1. Demographic characteristics of older adults

The demographic characteristics of participants are given in Table 1. The number of men was 221 and the number of women was 363 individuals. The mean age of the people was 66.78 years. Table 1 represents other demographic information. 38% of the samples were 60–64 years old, and 62/5% were female. Other characteristics of the studied older adults are shown in Table 1.

### 3.2. Assessing social support and happiness among the older adults

Mean and standard deviation of the quantitative variables are shown in Table 2.

### 3.3. Associations between happiness and social support and demographic variables among

The effect of demographic variables on social support dimensions is shown in Table 3. The results of the Table showed total social support has a statistically significant impact on gender, marital status, and education level of older adults ( $p = 0.032$ ,  $p = 0.001$ , and  $p = 0.003$ , respectively) as well as happiness with age, gender, marital status, and education level of the older adults ( $p = 0.002$ ,  $p = 0.624$  and  $p = 0.003$  and  $p = 0.001$ , respectively).

### 3.4. The correlation coefficients for happiness and social support/its dimensions

Spearman Correlation Coefficient test showed there is a correlation between social support/its dimensions and happiness in older adults (Table 4).

Also, a multi-stage regression test showed among the variables that had a statistically significant correlation with happiness, emotional social support, and education level was highly correlated with happiness. The  $R^2$  of the test was 0.265, indicating that 26% of the variance in happiness could be explained by social support and education level variables ( $p < 0.05$ ).

## 4. Discussion

In Iran, the population over 60 years old will reach more than 26 million people by 2050. Considering that old age is a sensitive period of life, paying attention to the needs and issues of this period is a social necessity [2]. In Iran, health care for older adults is provided through health centers and comprehensive health service centers. Some of these cares include the examination of blood pressure disorders, nutrition, fat, blood sugar, depression, anxiety, breast and colon cancer, and cardiovascular diseases. Also, food supplements including vitamins E and D are available in health centers. It is free of charge for older adults. Self-care education is also provided for elderly in comprehensive health service centers, and their bone and mental health is checked by healthcare workers and those who are called health ambassadors [2].

The purpose of this study was to investigate the relationship between social support and happiness in older adults. Related to RO2 and RO3, the average score of social support of the participants of the present study was 30.36. In this study the average score of social support was close to some studies [13]. But in the study of Ahmed, 2022, the average score of social support for older adults was more, which may be due to the use of a different social support scale that was used in this research [25]. The average happiness score of the respondents was 45.40 which was similar to some studies [13]. But this average was more in some other studies [25]. This difference may be due to the difference in samples, their average age and geographical difference (Egypt), and various factors affecting happiness in their research.

Related to RO4, one of the results of the study was that there were significant gender differences in social support. In the study of

**Table 1**  
Frequency of demographic variables among participants (N = 584).

Variables	groups	N (%)
Age	60–64	222 (38)
	65–69	184 (31.5)
	70–75	178 (30.5)
Sex	Male	221 (37.8)
	Female	363 (62.2)
Marital status	Married	456 (78.1)
	Single	12 (2.1)
	Divorced	116 (19.9)
Level of Education		248 (42.5)
	Illiterate	255 (43.7)
	High school	47 (8)
	Diploma	34 (5.8)
	Under graduate	

**Table 2**  
Mean and standard deviation of social support domains and appiness

Variables	Domains	Mean $\pm$ SD	Mminimum	Maximum
<b>Social Support</b>	Emotional	13.53 $\pm$ 5.01	0	20
	Informational	7.80 $\pm$ 3.47	0	14
	Instrumental	5.05 $\pm$ 2.33	0	10
	Evaluative	3.93 $\pm$ 2.17	0	8
	Total social support	30.36 $\pm$ 11.19	0	52
<b>Happiness</b>	–	40.45 $\pm$ 16.19	4	87

**Table 3**  
Influence between Total social support and Happiness with Demographic characteristics.

Variables	Total social support		Happiness		
	groups	Mean $\pm$ SD	p.value	Mean $\pm$ SD	p.value
*Age	60–64	30.8 $\pm$ 11.5	0.327	42.7 $\pm$ 16.5	0.002
	65–69	30.7 $\pm$ 10.8		41.1 $\pm$ 15.54	
	70–75	29.4 $\pm$ 11		36.9 $\pm$ 15.86	
**Sex	Men	31.4 $\pm$ 11.5	0.032	39.8 $\pm$ 16.5	0.624
	Women	29.7 $\pm$ 10.9		40.8 $\pm$ 16	
**Marital status	Married	31.5 $\pm$ 10.7	0.001	41.6 $\pm$ 16.5	0.003
	Single	22.9 $\pm$ 6.7		36.66 $\pm$ 13.3	
	Divorced	26.5 $\pm$ 12.1		36.36 $\pm$ 14.4	
** Education Level	Illiterate	28.45 $\pm$ 11.1	0.003	36.24 $\pm$ 15.6	0.001
	High school	31.6 $\pm$ 11.1		42.4 $\pm$ 16.27	
	Diploma	32.3 $\pm$ 11.3		45.6 $\pm$ 14.2	
	Under graduate	32 $\pm$ 10.1		49.3 $\pm$ 14.17	

\*ANOVA \*\* Mann-Whitney *U* test.

**Table 4**  
Spearman Correlations between happiness and total social support and its domains.

Variables*	Coefficient	p.values	Correlation with Happiness
Total social support	.512	0.001	Yes
Emotional support	.535	0.001	Yes
Informational support	.461	0.001	Yes
Instrumental support	.365	0.001	Yes
Evaluative support	.281	0.001	Yes

Ahmed, 2022, similar to our results, there was a significant difference [25]. This relationship has been shown in other studies [26,27]. But in some studies, there were no gender differences in social support [13]. Social support for older adults' men and women from family and friends is attributed to Iranian and Islamic culture where respect for older adults is of great importance and therefore, the older adults are respected by family and friends. The reason for the difference in these results may be due to the difference in the number and diversity of the sample in the present study with other studies. In general, women are more skilled in using social support, and also, women are more willing to join social networks, and in this way, they get emotional and instrumental support at the right time. On the other hand, men may be reluctant to ask for support or they may seek this support with less skill. Therefore, social support has stronger effects on women because women are both able to get it and able to use it more effectively.

Marital status also had a significant influence on social support. In many studies, the effect of marital status on social support has been found [13,25,26,28,29]. Marriage and having emotional relationships create a sense of affection, love, and sympathy, which are examples of social support and seek satisfaction and peace. Such feelings are absent or at a low level among single people [13]. In addition, with age, older adults become more dependent on their spouse, because its emotional quality is associated with a sense of belonging, so it can have an important protective effect against life events and lead to improved functioning in the family and society [29]. In any case, the level of receiving social support among married people reduces the level of anxiety and worry in life and increases the level of happiness.

A statistically significant influence of the level of education on social support was also observed. In studies in Iran similar to our results, a relationship was observed between education and social support [28,29]. The reason for this finding could be that less education makes the older adults have fewer opportunities to communicate with others, and have less physical contact with others.

Also, higher education can strengthen one's social relationships and social support.

According to the results of the research, one of the demographic variables that had a significant influence on happiness was age. In line with this finding, various types of research have shown the relationship between age and happiness in older adults [13,29–32]. With increasing age and moving towards old age, some changes occur in a person's life and conditions, which can affect the level of happiness in old age. Some of these changes include the loss of physical strength, weakness, and physical disabilities and approaching the last days of life, the death of loved ones and relatives, etc., which imposes a lot of pressure on older adults, one of the results of which is a decrease in happiness [30]. Seniors who can perform daily activities show higher levels of happiness and less depression, which ultimately leads to improved quality of life and happiness.

In our study, marital status was also related to happiness. Other studies have also obtained similar results [33]. Marriage has the strongest effect on happiness and mental and physical health [34]. Married people are happier than those who are divorced, single, separated, or lost their spouse [35,36]. Marriage acts as a shield against life's hardships and provides emotional and economic support that creates positive moods.

Another demographic variable was related to the level of education happiness. In other studies, a relationship between education level and happiness was found [13,33,34]. Although the relationship between education and happiness is not certain, but because people with higher education may be able to provide the minimum basic needs of life, high education can play a role in happiness.

Related to RO5, the results showed that there is a significant relationship between the dimensions of social support and its dimensions of happiness has it. One of the dimensions of social support is the emotional dimension, which had a significant relationship with happiness. In Some studies, older adults who have emotional support reported a higher level of happiness too [13]. The life of an older adult person with family members including wife and children and their emotional support creates feelings of love, care, self-esteem, and value in him and leads to a happy and healthy life. The results of the study by Bozo et al., 2009 in Turkey have also shown the importance of emotional support in reducing the worry and anxiety of older adults [37]. According to our results, informational support also had a significant correlation with happiness. Similar of some studies, informational support was the most important predictor of happiness in older adults [13]. Information support can include processes and assistance such as positive access to information about health and care services, encouraging healthy behaviors, and helping older adults to use health services [13]. In general, people who support friends and family members in times of need or feel that there is someone they can rely on are likely to have low levels of psychological distress and high levels of happiness. Evaluative support was also related to happiness. Assessment support can be provided by both family members and friends. This type of support includes measuring the quantity and quality of support as well as satisfaction with social relationships [38]. Increasing such support plays a great role in increasing people's level of happiness. Instrumental support was also associated with happiness. Because family members always serve as a source of instrumental support (such as help, money, gifts, and services), this type of support plays a vital role in happiness.

The results showed that there is a positive and significant correlation between social support and happiness in older adults. That is, people who received more social support had higher levels of happiness. This finding is consistent with the results of various research [13,25,39,40]. With positive effects on human life and thus on human happiness, social support not only promotes health but also reduces medical problems such as depression and anxiety [41]. Through social support, people can bear their psychological pressures and gain the strength to successfully face stressful situations. Social support increases self-confidence and self-esteem in a person and in this way helps him achieve his goals, satisfaction with life, and ultimately health and happiness. By receiving social support, tangible psychological resources are provided for people so that they can cope with stressful life conditions and daily problems and as a result feel more happiness.

## 5. Conclusion

There is a positive correlation between social support and happiness. This study can guide health workers to plan social support interventions in the older adults to increase happiness. In planning interventions for improving happiness in older adults, they should focus on emotional social support. Also, low-educated older adults should be prioritized. Finally, the results of this study would have implication in designing of interventions to promote happiness in the studied older adults. However, it is necessary to conduct more extensive research on social support, active ways of maintaining and enjoying the older adults.

## 6. Strengths and limitations

Considering the rapid growth of the elderly population in Iran and the importance of elderly social support to improve their happiness, also, conducting this study at the present time in order to obtain up-to-date information are the strengths of this study. One of the limitations of the study was the self-reporting of the older adults, which increased the possibility of giving false information. Another limitation was that only the older adults attending health centers were studied. Therefore, the results of the present study cannot be generalized to the older adults living at home or the older adults who are kept in nursing homes. The difficulty of establishing a relationship with the older adults, access to these people and the lack of cooperation of some of them were other limitations of the study. It is suggested researchers to use interviewing method for data collection and study older adults who are kept in nursing homes, living at home and visiting health centers in future studies. Also, it is recommended to conduct interventional studies in the field of promoting social support and happiness.

## Funding

The research was supported by grant No. 97-4-2-13673 from Iran University of Medical Sciences.

## Ethical approval

The study protocol was approved by the Research Ethics Committee of the Iran University of Medical Sciences (IR.IUMS. REC.1397.891).

## Informed Consent

The objectives of the study were explained to the participants and informed consent was obtained from them.

## Author contribution statement

Zohreh Beygi: Performed the experiments; Contributed reagents, materials, analysis tools or data; Wrote the paper. Mahnaz Solhi: Conceived and designed the experiments; Wrote the paper. Seyed Fahim Irandoost: Performed the experiments; Wrote the paper. Agha Fatemeh Hoseini: Analyzed and interpreted the data; Wrote the paper.

## Data availability statement

Data will be made available on request.

## Additional information

No additional information is available for this paper.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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