Original Article

Relationship between depression and social support and morale in the elderly

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Abstract

Context: The priority of health issues in each community changes with aging and some problems related to aging, especially morale. Many factors such as social support and depression affect morale in the elderly.

Aims: Current study aimed to assess the effect of depression and social support on morale in the elderly in the City of Mashhad.

Setting and Design: This is a correlational study, which was conducted in 2016.

Materials and Methods: Seventy elders from Bafti and Adviy-e-Chi urban health centers in the City of Mashhad participated in this correlational study in 2016. Related data were collected using Individual Characteristic Questionnaire, Geriatric Depression Scale, Duke Social Support Scale, and Philadelphia Geriatric Center Morale Scale.

Statical Analysis Used: Data analysis was done in SPSS version 16 using multiple regression tests and Pearson correlation coefficient

Results: The mean age of elders was 71.0 ± 6.2 years old and 68.6 percent (n= 42) of participants were female. Multiple regression test revealed significant reverse relationship between depression and morale in the elderly (P=0.022; β= 0/705), whereas social support had a significant and direct relationship with morale in the elderly (P= 0.003; β= 0.347). Findings of Pearson correlation coefficient revealed a significant reverse correlation between depression and morale in the elderly (P= 0.031; r= 0.261) and also a direct relationship between social support and morale (P= 0.006; r= 0.389).

Conclusion: Regarding the effect of depression and social support on morale in the elderly, it is recommended to adopt caring and educational programs focusing on depression prevention and augmenting social support in order to improve morale during elderly.

Keywords: Depression, Elderly, Morale, Social support

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INTRODUCTION

In today's modern and advanced world, socioeconomic developments are expected to decrease population growth and increase life expectancy, in which the growth of the elderly population is more than the growth of the overall

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population.[1] It is expected that the population aged 60 and older will reach 13% of the overall world population by the year 2020, of which 70% will be living in developing countries. The increasing trend of the elderly population is faster in some countries including Iran[2] so that the population aged 60 and older in Iran is expected to be 27 billion (about 28% of the overall population in Iran) by the year 2050.[3] However, regarding increase in elderly people population, planning, decision-making, and helping elders are vital in order to maintain their health and addressing their needs and activities.[4]

Elderly is a unique experience, in which elders are exposed to potential threats including increased risk of chronic diseases, loneliness, isolation, and lack of social support. In many cases, their individual independence is threatened due to physical and mental inabilities.[5,6] The priority of health issues in each community changes with the aging of the population, and those problems related to aging become more important in the health system[7] including mental-psychological problems of elders, especially their morale. Morale is usually used synonymously with psychological or mental health, quality of life, and life satisfaction.[8]

Morale is a multidimensional concept related to various factors including social (such as family support and supportive services), functional (outdoor activities, exercise, and doing daily activities independently), and medical (physical health, depression, and cognitive disorders) factors.[9] Depression is known as the main factor which may contribute to morale levels in elderly people. The incidence of depression over time among elderly people may be increased by their failing body, impaired cognition, emotional distress, and social isolation.[10] People who suffer from depression may lose the ability to experience pleasure, motivation, perseverance, and anhedonia.[11] Mental disorders along with some serious problems such as depression, anxiety, impaired memory, sleep disturbance, and also feel of loneliness and isolation affect 15%–25% of people over 65 years old.[12] However, loss of spouse, long-term living alone in the house or special centers, retirement, and lack of social support have been found to be associated with the incidence or the severity of depression.[13]

Social support is another factor affecting morale in the elderly. Social support has been introduced as an independent and predictive variable for all aspects of human health and welfare, quality of life, and life satisfaction.[14] Social support is related to the improvement and development of adaptive mechanisms and psychological adaptation which cause elders to feel safe, calm, and attachment during stressful conditions.[15] Social support and family relationships influence the mental health of elders and are associated with the culture of each society. For example, in American culture, young people expect more support from their parents when compared to those in Japan, in which parents expect more support. It has been reported that the number of children, the quality of the relationship, or the fact of not having children can also affect perceived support.[16-18]

The results of Bakhshani *et al*.'s study revealed that the rate of depression was lower among married elders.[19] Furthermore, studies have revealed a reverse correlation between depression and social support and confirmed the effectiveness of perceived social support against depression in elderly people. They showed that the score of depression was higher among the elderly population with lower social support as compared with normal elders with a satisfactory level of social contacts and social support. Low morale in old age has been related to depression in cross-sectional studies. On the other hand, high morale has been associated with good health, including preserved mobility, as well as with having an adequate income and satisfactory level of social contacts and social support.[20] It seems that social support and morale plays a moderating role in the incidence or the severity of depression and may be a key variable for depression among this group of age.[16,19]

Depression and social support can affect the mental health of elders.[21] However, regarding the high psychological disorder prevalence between elderly people, planning to prevent and treat those problems related to elderly problems requires more attention. Based on previous research, we had the hypothesis that high morale and social support might be protective for depression; therefore, in the current study, we assessed the effect of social support and depression on morale in the elderly people in the city of Mashhad.

MATERIALS AND METHODS

In this study, five health centers affiliated to Mashhad University of Medical Sciences and two centers (Adviy-e-Chi and Bafti centers) were selected for participant recruitment. To recruit participants, population registers were obtained from two health centers. From 450 eligible elders, 70 people accepted to participate in the study. According to preliminary studies on ten elders and using correlation coefficient with a confidence interval of 95%, the sample size was calculated to be seventy participants. Eligible elders were entered into the study, and informed consents were obtained in written form. Inclusion criteria were the

following: able to participate in the research (feasibility), age of 65 years and older, not under treatment for depression, and osteoporosis (based on self-reports and previous medical records in the health center). Exclusion criteria included failure to respond to more than thirty questions and disinclination to continue the study.

The data collection tools employed in the study were Individual Characteristic Questionnaire, Geriatric Depression Scale (GDS), Duke Social Support Scale, and Philadelphia geriatric center morale scale (pgcps). Demographic questionnaire included age, gender, education level, marriage status, lifestyle, personal income, residency condition, insurance condition, participating in religious ceremonies, and number of children.

The GDS was designed by Yesavage *et al*. in 1982 containing 15 questions with yes or no answers.[22] In question numbers, 2, 3, 4, 6, 8, 9, 10, 12, 14, and 15, the positive answer "Yes" and the negative answer "No" were scored 1 and 0, respectively. In questions 1, 5, 7, 11, and 13, the negative answer "No" and the positives answer "Yes" were scored 1 and 0, respectively. The validity of the tool was confirmed by Malakouti *et al*. using convergent validity. The reliability of the tool was 0.90 using Cronbach's alpha.[23]

The Duke Social Support and Stress Scale was established by Duke University in 1986. This tool contains 12 items with a 3-point Likert scale (0: none or there is no such person, 1 = low, and 2 = high). The 11th item was scored as yes (equal to 1) and no (equal to 0). The 12th item directly questioned the existence of a supporter in the life of elders. The score range of this tool is 0–100, in which higher scores indicate more support and *vice versa*.[24] The reliability of the scale was reported to be 0.73 using Cronbach's alpha in Parkerson *et al*.'s study.[25] The validity of the tool was reported to be0.79 by Zarifnejad *et al*. using test–retest method.[26]

The PGS was designed by Lawton in 1975, which contains 17 questions with "Yes" or "No" answers.[27] This tool consists of three subscales including agitation, attitude toward own aging, and lonely dissatisfaction. The scores of this scale range from 0 to 17, so that higher scores are associated with higher morale. Lawton calculated the reliability of this scale using Kuder–Richardson and test–retest methods which came out to be 0.81 and 0.75, respectively. The reliability of the scale was found to be 0.87 using test–retest method in the study of Zarifnejad *et al*. in 2014.[26] Although all tools are standard, the content validity of these four scales was assessed by the faculty members of Nursing and Midwifery School of the Mashhad University of Medical Sciences.

At first, the participants were justified about the aims of the study, and a voluntary written consent was obtained from the participants before the study. Then, related questionnaires were distributed, and the participants were asked to complete the questions in 30 min. The investigator read the questions and answers for those participants who were unable to read the questions and recorded their answers in the questionnaire. After 30 min, the questionnaires were collected. For those elders who were unable to complete the questions in 30 min, additional time was assigned. During this procedure, the investigator guided the elders if necessary. In order to comply with the ethical code, the participants were free to enter the study, and they were assured of the confidentiality of their information.

The most important ethical considerations included obtaining necessary permissions from the Ethics Committee of the Mashhad University of Medical Sciences and written consent. SPSS software version 22 (SPSS, Chicago, IL, USA) was used in order to analyze the collected data with statistical tools such as frequency distribution, mean, and standard deviation. Multiple linear regression analysis and Pearson's correlation coefficient were used to assess the relationship of depression and social support on morale in the elders. Pearson's and Spearman's correlation coefficient analyses were used to analyze the effect of personal variables on depression, social support, and morale in the elders. Confidence interval and significance level were considered 95% and 0.05, respectively.

RESULTS

Overall 68.6% (n = 42) and 31.4% (n = 22) of the participants were female and male, respectively. The mean age of the participants was 71.0 ± 6.2 years. Regarding job status, 30.4% (n = 21), 5.8% (n = 4), and 63.8% (n = 44) of the participants were retired, employed, and homemaker, respectively. Other individual features of the participants are summarized in Table 1. The obtained results from variance analysis [Table 2] revealed a statistically significant relationship between depression and social support on the one hand and morale in the elders on the other hand ($P < 0.05$).

The results of multiple regression analysis revealed that depression and social support were in statistically significant reverse and direct relationship with morale in the elders, respectively ($\beta = 0.705$, $P = 0.022$, and $\beta = 0.347$,

Table 1: The frequency of studied elders regarding individual features

Variable	Frequency (%)
Marital status	
Married	49 (70.0)
Widow	1 (1.4)
Deceased wife	20 (28.6)
Life combination	
Alone	13 (18.6)
With spouse	19 (27.1)
With children	10 (14.3)
With spouse and children	28 (40.0)
Having personal income	
Yes	59 (85.5)
No	10 (14.5)
Residential status	
Rental house	16 (22.9)
Private house	47 (67.1)
Other's house	7 (10.0)
Insurance status	
Yes	59 (84.3)
No	11 (15.7)
Participating in religious ceremonies	
Low	17 (24.3)
Moderate	40 (51.7)
Much	10 (14.3)
Very much	3 (4.3)
Number of children	
Children (mean±SD)	5.2±2.4

SD: Standard deviation

Table 2: Variance analysis for the effect of depression and social support on morale in the elders

Model	Sum of squares	Degrees of freedom	Mean square	*F* statistic	*P*
Regression	77.010	2	38.505	6.981	0.002
Remainder	297.832	54	5.515		
Total	374.842	56			

Table 3: Regression analysis of the effect of depression and social support on morale in the elders

Variable	β coefficient	95% CI	*R*	*P*
Social support	0.385	0.126–0.568	0.347	0.003
Depression	−0.289	−1.303–−0.107	−0.705	0.022

CI: Confidence interval

$P = 0.003$) [Table 3]. The results of Pearson's correlation coefficient also showed that depression and social support were in statistically significant reverse and direct relationship with morale in the elders, respectively ($r = -0.261$, $P = 0.031$, and $r = 0.389$, $P = 0.006$). Furthermore, Pearson's correlation indicated no statistically significant relationship between depression and social support ($P = 0.388$). Because morale includes three dimensions of life in the elders (agitation, attitude toward own aging, and lonely dissatisfaction), these subscales were analyzed too.

The findings of multiple regression test demonstrated that depression and social support were in statistically significant reverse and direct relationship with agitation dimension of morale, respectively ($\beta = -0.705$, $P = 0.022$, and $\beta = 0.347$, $P = 0.003$) [Table 3]. The results of Pearson's correlation revealed that depression and social support were in statistically significant reverse and direct relationship with agitation dimension, respectively ($r = -0.261$, $P = 0.031$, and $r = 0.389$, $P = 0.006$). Furthermore, there was no statistically significant relationship between depression and social support in Pearson's correlation ($P = 0.388$).

The findings of multiple regression test demonstrated that depression and social support were in statistically significant reverse and direct relationship with attitude toward own aging, respectively ($\beta = -0.705$, $P = 0.022$, and $\beta = 0.347$, $P = 0.003$) [Table 3]. The results of Pearson's correlation also revealed that depression and social support were in statistically significant reverse and direct relationship with attitude toward own aging, respectively ($r = -0.261$, $P = 0.031$, and $r = 0.389$, $P = 0.006$). Furthermore, there was no statistically significant relationship between depression and social support in Pearson's correlation ($P = 0.388$).

The findings of multiple regression test demonstrated that depression and social support were in statistically significant reverse and direct relationship with lonely dissatisfaction, respectively ($\beta = -0.705$, $P = 0.022$, and $\beta = 0.347$, $P = 0.003$) [Table 3]. The results of Pearson's correlation revealed that depression and social support were in statistically significant reverse and direct relationship with lonely dissatisfaction, respectively ($r = -0.261$, $P = 0.031$, and $r = 0.389$, $P = 0.006$). Furthermore, there was no statistically significant relationship between depression and social support in Pearson's correlation ($P = 0.388$). The results of Pearson's and Spearman's correlation coefficient revealed that the individual characteristics of elders were not significantly related to depression, social support, and morale.

DISCUSSION

Morale in old-age people has been related to a number of different physical, psychological, and social factors. However, only a few studies have focused on morale in very old age regarding social support and depression. One cross-sectional study focusing on morale in very old age found morale to be most strongly associated with depressive symptoms.[28] Importantly, negative life events had a cumulative adverse effect on morale.[29] The result of the present study revealed a significant inverse relationship between depression and morale. In addition, the results showed a direct relationship between social support and morale in the elders, which corresponds to previous studies

on pernicious effects of negative life events on mental health and well-being.[30] In addition, morale correlates with concepts such as subjective or psychological well-being, successful aging, and quality of life.[31] von Heideken Wågert *et al*. demonstrated a strong relationship between depression and low morale among elders.[9] The results of Von Heideken Wågert *et al*.'s study were consistent with the results of the current study because those people experiencing higher levels of depression are reluctant to attend meetings and ceremonies, and they are more isolated which can undermine their morale.[32] Further, it has been shown that high morale can predict a higher 5-year survival.[33] Studies of Mathias, Malta *et al*., Britt *et al*., and Kim *et al*. revealed the negative effect of depression on morale,[34-37] which is similar to the findings of the present study due to the mechanism of depression and its effect on morale.

Social support is recognized as a potentially protective factor against elderly abuse and the risk of mental health conditions. Among older adults, social support has been found to enhance well-being and is inversely associated with depressive symptoms.[38] Loke *et al*. showed a strong and significant relationship between social support and morale in the elders. In addition, they showed that disability from chronic illness and poor social support strongly influence depression associated with morale levels and they advised more attention to detect occult depression in the elders with significant poor social support.[39] The results of Loke *et al*.'s study were similar to those of the present study due to the mediating role of social support in improving morale. To create the feeling of prosperity and welfare among elders, there should be a person whom the elder can trust, share his/her sadness and happiness with him/her, and refer to him/her in facing problems. Social support provides mutual commitments which may provide the feeling of being loved and cared, self-esteem, and being worthy.[40] The study of Zarifnejad *et al*. pointed to the direct and significant effects of social support on morale in the elders. They mentioned social support as an important predictive factor in morale.[26] The results of Zarifnejad *et al*.'s study were consistent with the findings of the present study due to the relationship between social support and improvement of defensive mechanisms and psychological adaptation. These mechanisms can help elders during stressful situations to feel safe, relaxed, and attached.[15] However, regarding social support, there is an increase in the potential risk factors that decrease the morale such as living alone, decrease in the number of social contacts, and loss of a child in the elderly. Perceived loneliness is common in very old age, which has been associated with lower morale cross-sectionally.[41] The study of Yoo revealed a significant relationship between perceived social support and morale among elders.[15] Studies of Deng *et al*., Alipoor (2007), and Bakhshani (2005) also confirmed a significant relationship between social support and morale in the elders.[19,42,43] However, our results were in accordance with the above-mentioned evidences, which suggested the effect of families' and friends' support on morale. Relatives and friends are usually considered as a source of financial support although the role of friends may be less than that of the family. On the other hand, both family members and friends can provide emotional support. Friends accompany elders in social activities more than their family members and relatives,[44] which can help elders to feel being supported. Furthermore, in a study, morale was found to be increased with the introduction of an exercise program over 3 months among people with dementia problem. However, it is not known whether exercise or other interventions undertaken to boost morale among very old individuals would reduce the risk of depressive disorders.[45]

The current study demonstrated that the elders with the social support of their family had lower morale than those with the simultaneous support of their family and friends ($P < 0.001$). In this regard, results of Litwin's study in 2001 were similar to the findings of the current study, in which those elders with family support had lower morale as compared with those with simultaneous support of their family and friends.[46] Furthermore, Kim *et al*. stated that those elders living with their spouse and children had lower morale than elders with the support of their family and friends together.[47] Results of these studies were not consistent with those of the present study which can be due to cultural differences and the time of the study. Researchers pointed to the crucial role of family and social support in improving morale over time. Furthermore, various countries have a different attitude toward family and its effect on morale.

The present study has various limitations including:

- Trusting the accountability regarding the social support perceived from family
- Assessing those elders referring to health centers; therefore, caution should be taken into account when generalizing results to other elders
- Low sample size and the inability to prolong sampling time due to time and financial limitations.

CONCLUSION

Our results indicated a significant inverse relationship between depression and morale levels, while high morale has a direct association with social support. However, the

investigation pushes our knowledge one step further by demonstrating the effect of social support on morale levels and depression.

Conflicts of interest

The authors declare that there is no conflict of interest in this study.

Authors' contribution

- Fatemeh Pourtaghi: contributed with data collection, analysis and writing the first draft of the article.
- Zahra Hamedi and Monir Ramazani: designed and supervised the work.
- Hamidreza Behnam Vashani: translated the manuscript into English.
- Zahra Emami moghadam: were advisors of the article.

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