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Relationship between Social Support, Loneliness, and Depression among Elderly People

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Abstract: Introduction: Aging is a sensitive period of human life so attention to their needs and issues is of greatest importance. Aim: To determine the relationship between social support, loneliness, and depression among elderly people. Methods: A descriptive-correlation research design was used. The subjects consisted of 150 elderly persons who are selected according to inclusion and exclusion criteria. The study was carried out in one randomly selected village (El Badala) from 23 village affiliated to El-Mansoura District, Egypt. Tools of data collection included mini – mental state examination (MMSE), socio-demographic and clinical data structured interview schedule, UCLA loneliness scale, a multidimensional scale of perceived social support (MSPSS) and the geriatric depression scale (GDS). Results: 80% of elderly reported moderate social support,86% of them reported a mild feeling of loneliness, and56% of them reported mild depression. Conclusion: There was a positive significant, correlation between the level of loneliness and depression, while there was a negative correlation between social support and loneliness, and between social support and depression. Recommendation: Design an educational program for elders about the importance of social support to reduce loneliness and depression among them.

Keywords: Elderly, Social support, Depression, Loneliness.

INTRODUCTION

Social relationships are vital to the psychological and physical health and quality of life of older people. Inadequate social network leads to feelings of isolation and loneliness among them^(1, 2). All older adults experience either physical, or cognitive, or economic and/or social losses, that may disturb their social support networks and lead to loneliness, health problems, and isolation, that impair their quality of life more often than younger people⁽³⁾.

Social support includes real or perceived resources provided by others that allow the elderly person to feel cared for, appreciated, and part of a network, promote health, and increasewell-being and quality of life by giving them with positive experiences, socially active roles, or better coping with stressful events ^(4, 5). Social support is significant for elderly people living with a disability associated with chronic illness or social isolation after losing a spouse. The elderly may feel lonely, face physical, emotional health problems, and increase symptoms of depression as a result of the lack of family or other important people and the decline of social support networks ⁽⁴⁻⁶⁾.

Social relationships were found to be inversely related to loneliness. Loneliness is a psychological condition resulting from a perceived lack of social contact; it is defined as "a complex set of feelings encompassing reactions to the absence of intimate and social needs" It is a unique experience that occurs in all stages of life, but older people are particularly vulnerable. It is one of the most psychosocial problems facing the elderly due to their multiple losses such as retirement, living arrangements, poor health, decreased mobility and income, death of a significant

other, or transferring to an elderly homes, these losses may interfere with social connection with families and friends and make older people become more socially isolated, which lead to poor self-rated health, which negatively affects the quality of older adults' life and poses a substantial mortality risk^(1, 8-14).

Loneliness is one of the strongest predictors and a major risk factor for depression in old age as well as depression is another main symptom of the lack of social support (15, 16). Several researches have recognized the relation between social support, depression, and loneliness among elderly (17-19). The symptoms of loneliness are extremely similar with depressive symptoms, as anxiety and sadness (15). So, depression inevitably associated with loneliness in late life, so older adults with high levels of loneliness suffered from more depressive symptoms (20).

"According to the Diagnostic and Statistics Manual of Mental Disorders V (DSM V), depression is characterized by the presence of five or more symptoms of significant weight loss or weight gain, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue, feelings of worthlessness or guilt, inability to concentrate and recurrent thoughts of death or suicide for a period of 2-week and represent a change from previous functioning, with at least one of the symptom of depressed mood or loss of interest or pleasure" (21, 22).

SIGNIFICANCE OF THE STUDY

A major feature of the Egyptian population over the last few decades is the regular raise in the number of elderly people. With the increase of older adults in the society,

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psychological problems among them are getting more attention. Elderly people are more vulnerable than young and middle age adults to experience loneliness and depression problems. Social support plays the role of a partial mediator in the relationship between loneliness and depression⁽²³⁾. Therefore, it is important togerontological nurse and psychiatric nurse to assess the factors that lead to loneliness, depression and give sufficient social support in physical of emotional/ informational. effective support to decrease the feelings of loneliness and depression in the elderly and try to overcome it (20). Therefore, this study was done to determine the relation between social support, loneliness, and depression among elderly people.

Aim of the study:

To determine the relationship between social support, loneliness, and depression among elderly people.

Research question: what is the relation between social support, loneliness, and depression among the elderly?

SUBJECT AND METHODS

Design: Descriptive- correlational research design was used in this study.

Setting: The study was carried out in one randomly selected village (El Badala) from 23 village affiliated to El - Mansoura District, Egypt.

Subjects: Elderly persons aged 60 years and above, of both sexes, able to comprehend and communicate effectively, with mini- mental status score equal or greater than 27 (free from cognitive impairment), and who are ready to participate in the study will be included.

Sample size: Using DSS research.com sample size calculator software program, at 5% ∞ error (95% significance) and 20% β error (80% power of the study), assuming that the percentage of depression is 51% among socially supported elderly and it is 73.5% among not socially supported $^{(24)}$; the calculated sample size is 144 and by adding 5% of better quality of data collection, sample will be 150 elderly. Older adults were chosen from the family files using a systematic random sample, and data were collected during an interview with the elders at their homes.

Tools:

Tool I: Mini – Mental State Examination (MMSE):

This scale was developed by Folstien 1975 $^{(25)}$. It was translated into Arabic language by *Elokl*, 2008 $^{(26)}$ validated and tested for its reliability (r =0.93) by (*Abd El Moniem*, 2012) $^{(27)}$. It was designed for assessing the elder's cognitive function. It includes of 11 items that examine the memory, orientation to time and place, attention, calculation naming, repetition, registration, language, praxis and copying of a design. This was used to exclude elders with moderate and severe degree of cognitive impairment. The MMSE scale score is 30 points and classified as follows:

- Score of 24-30 refer to normal cognitive function.
- Score of 18-23 refer to mild cognitive impairment.
- Score of 0-17 refer to severe cognitive impairment.

Tool II: Socio Demographic and Clinical Data Structured Interview Schedule: It was developed by the researchers based on the review of related literature; it includes, age, sex, income, educational level, marital status, occupation before retirement, and living condition. Presence of chronic illness as diabetes mellitus, hypertension, duration of the disease and family history.

Tool III: UCLA Loneliness Scale: (University of California, Los Angeles, Version 3)Russell et aI., (1980) (28). Itis a 20- item scale designed to measure one's subjective feelings of loneliness as well as feelings of social isolation. This instrument is psychometrically appropriate" and extensively used by Russell, 1982. It is reliable and valid in assessing loneliness, and the alpha coefficientequal0.94. The scale has been translated and tested to verify its validity and reliability (r = 0.87) by Abdel Salam (1996) (29). Participants rate each item on a scaleon a 4-point likert scale: 1 (never); 2 (rarely); 3 (sometimes) and 4 (always). 10 of the 20 original items reverse scored. The possible scores range from 20<40 (low), 40<60 (mild), and 60≤80(high); the higher score means the greater level of loneliness.

Tool IV: Multidimensional Scale of Perceived Social Support (MSPSS): This scale was developed by Zimet, 1988⁽³⁰⁾. It consists of 12 questions, designed to measure the social support level that one perceives from family, friends and significant others. The scale was translated into Arabic and tested for its content validity and reliability (r= 0.88) by El-Hazmy (2016) (31). Likert scale response options vary from 1 (very strongly disagree) to 7 (very strongly agree). The questions are divided into three subgroups, four items each related to the source of the social support, namely family, friends or significant others. Mean scores on the subscales, as well as the overall scale, show the level of satisfaction. Responses to the elements are collected in each sub-scale, with results from 4 to 28. The total of the three sub-scales gives global satisfaction to the perceived support scores from 12 to 84. The possible scores range from 12-48 (low social support), 49-68 (mild), and 69-84(high); higher scores mean higher levels of social support.

Tool V: The geriatric depression scale (GDS) short form: This scale was developed by Sheikh and Yesavage (1986) (32) It is a self-reported 15 items, used to evaluate depression and overall well-being of the elderly. The scale has been translated into Arabic and has been approved as valid and reliable by Elhuseiny (2013) (33). The older person choose the best answer either yes: one (1) or No: zero (0) for how he/ she felt during the last week. Of the 15 questions, 10 questions indicate the presence of depression when answered positively, while the rest (question numbers 1, 5, 7, 11, 13) indicate depression when it was answered negatively. Scores ranges from zero to 15, items are summed for total scores. The score from zero to 4 indicates no depression; the result from 5 to 8 indicates mild depression; the result from 9 to 11 indicates moderate depression and the result from 12 to 15 indicates severe depression.

Methods:-

- An official letter was issued from the director of the Family Medicine Center in the village to carry out the study.
- The study tools were revised by six experts in the field of Psychiatric and Mental health nursing, Gerontological nursing to test their content validity and feasibility, and the necessary modifications were done.
- A Pilot study was conducted on15 elderly persons to test the clarity and applicability of the study tools, and the approximate time required for the interview. Those elders were not included in the study.
- The required time to complete the study tools ranged from 30 to 45 minutes.
- The data collection covered a period of three months from the first of April 2018 till the first of July 2018.

Ethical consideration:-

The study was approved by the Research Ethics Committee of the Faculty of Nursing, Mansoura University. Verbal consent was obtained from elderly persons after explaining the aim and nature of the study. Privacy was assured, and subjects were informed that data collected will be treated with confidentiality and will be used only for the research purpose.

Statistical analysis:

Collected data were coded, computed and statistically analyzed using SPSS (statistical package of social sciences), version 16. Data were presented as frequency and percentages (qualitative variables) and mean \pm SD (quantitative continuous variables). Student's t test was used for comparison of continuous quantitative variables (two groups) and one way anova (F test) was used for comparison of continuous quantitative variables (more than two groups). Paired t test was used for comparison of two continuous quantitative variables in the same group. Pearson's Correlation was used to find correlation coefficient of two continuous quantitative variables. The difference was considered significant at $P \leq 0.05$.

RESULTS

Table (1) shows the distribution of older adults according to their socio-demographic characteristics. This table reveals that the studied elderly age ranged from 60 to 85 years, more than half of them were male and married (58%, 54% respectively). In addition, 54 % of the elders reported have enough income, 80% of them reported pension as a source of income and 58% of them living with family, while less than two thirds of them (60%, 64% respectively) reported have (1-3 brothers, sisters, and 3-5 children).

Table (1): Distribution of older adults according to their socio-demographic characteristics

Socio-demographic characteristics	No (150)	%
Age (years)		
60 -	123	82.0
75 - 85	27	18.0
Sex		
Males	87	58.0
Females	63	42.0
Social status		
Married	81	54.0
Widow	66	44.0
Divorced	3	2.0
Education		
Illiterate	35	23.3
Read & write	27	18.0
Primary	31	20.7
Secondary	35	23.3
University	22	14.7
Job before retirement		
House wife	57	38.0
Employee	45	30.0
Trade man	27	18.0
Business work	21	14.0
Monthly income		
Enough	81	54.0
Not enough	54	36.0
Enough & save	15	10.0
Current source of income#		
Pension	120	80.0
Rent property	30	20.0
Ministry of social support	21	14.0
Sons' help	18	12.0
Others	18	12.0
Livingcondition		
Family	87	58.0
With son, and relatives	42	28.0
Alone	21	14.0
Number of relatives		
1-3	90	60.0
4-6	51	34.0
7-8	9	6.0
Number of children		
None	3	2.0
1-2	51	34.0
3-5	96	64.0

More than one answer

Table (2) shows the distribution of older adults according to their medical history. It is observed from the table that 88% of the elders suffering from a disease. Hypertension and diabetes mellitus were the most common co-morbidities

among elderly persons (34%, 28% respectively) followed by joint stiffness, liver disease, respiratory disease, and cardiac disease (24%, 10%, 8%, and 6% respectively).

Table (2): Distribution of older adults according to their medical history

Medical history	No (150)	%	
Suffering from disease			
-Yes	132	88.0	
-No	18	12.0	
Type of diseases#			
- None	18	12.0	
- Hypertension	51	34.0	
-Diabetes Mellitus	42	28.0	
- Joint stiffness	36	24.0	
- Liver disease	15	10.0	
- Respiratory disease	12	8.0	
- Cardiac disease	9	6.0	
- Kidney disease	9	6.0	

More than one answer

Figure (1) shows the distribution of older adults according to their level of social support. It was observed that 80% of elders reported moderate social support, while high social

support was reported by 14% of them and only 6% of elders reported low social support.

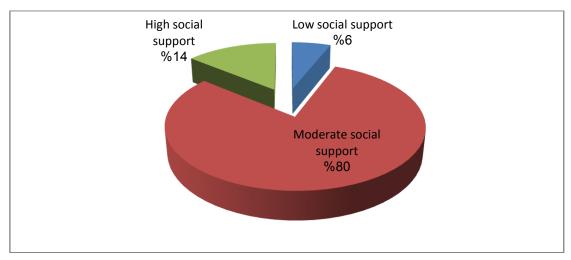


Figure (1): Level of social support among studied elderly, N=(150)

Figure (2) portrays the distribution of older adults according to their level of feeling loneliness. It shows that the majority

of the elderly (86%) reported mild feeling of loneliness, while the rest of them reported a low feeling of loneliness.

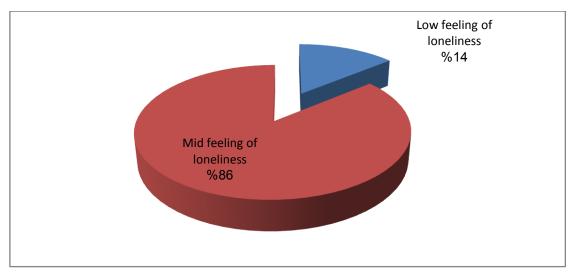


Figure (2): Level of loneliness among studied elderly, N=(150)

Figure (3) shows the distribution of older adults according to their level of depression. It was observed that 56% of the elderly reported mild depression, while the level of normal

and moderate depression reported by 24%, 20% of them respectively.

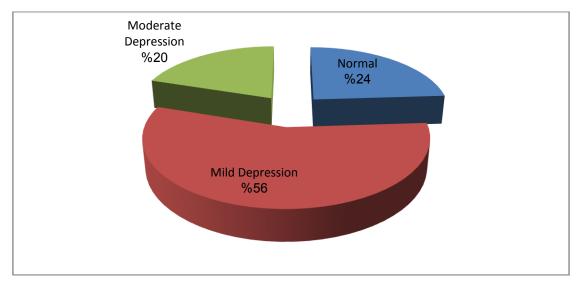


Figure (3): Level of depression among studied elderly, N= (150)

Table (3) shows themean score of social support types among elderly people. It appears from the table that the

average score of social support is significantly higher among family and significant others than friends.

Table (3):Mean score of social support types among elderly people

Types of social support	Range	Mean ± SD
Significant other	12.0-28.0	20.86 ± 3.06
Family	7.0-28.0	20.72 ± 3.37
Friends	8.0 -28.0	20.28 ± 3.68
Total score	32.0 -84.0	61.86 ± 9.47

(Significant other score versus family score, paired t test=0.896, P=0.372) (Significant other score versus friends' score, paired t test=3.300, P=0.001) (Family score versus friends' score, paired t test=2.440, P=0.016)

Table (4) describes the correlation between the social support scores, loneliness, and level of depression, among the elderly. It was observed from the table that there is mild, significant, negative correlation between social support and

loneliness, and between social support and depression(r = -0.370, -0.447 respectively). While there is mild, significant, positive correlation between the loneliness and level of depression(r = +0.363, P<0.001).

Table (4): Correlation between social support scores, loneliness, and level of depression, among studied elderly (150)

r	P
-0.370	< 0.001
-0.447	<0.001
+ 0.363	<0.001
	-0.447

Table (5) illustrates the relation between socio-demographic characteristics and social support, loneliness, and depression, of the elderly. It appears from the table that the age, sex, and associated illness affects significantly on depression level (p=0.004, 0.000, and 0.000 respectively). On the other hand, there is a significant relation between

thesocial status of elderly and the level of loneliness (p=0.007). As regarding education, there is a significant relation between it and loneliness and social support (p=0.006, 0.016 respectively), while monthly income affects significantly on the level of depression, loneliness, and social support (p=0.043, 0.027, and 0.045 respectively).

Table (5): Relation between socio-demographic characteristics and social support, loneliness, and level of depression of the studied elderly

Characters	Items	No (150)	Social support Score	Loneliness Score	Depression Score
Age (years)	60 -	123	61.85 ± 10.34	47.63 ± 7.33	6.05 ± 2.58
8- ()/	75 - 85	27	61.11 ± 2.86	50.44 ± 2.68	7.56 ± 1.67
Significance test		· L	t=0.369,P0.712	t=1.959,P0.052	t=2.894,P0.004
Sex	Males	87	60.65 ± 8.70	49.03 ± 6.48	7.21 ± 2.32
	Females	63	63.19 ± 10.25	46.90 ± 7.12	5.10 ± 2.24
Significance test		t=1.645,P0.104	t=1.906,P0.059	t=5.576,P0.000	
Social status	Married	81	60.56 ± 10.88	46.89 ± 7.71	6.29 ± 2.29
	Divorced	3	60.00 ± 0.00	57.00 ± 0.00	7.00 ± 0.00
	Widow	66	63.23 ± 7.35	49.27 ± 5.14	6.32 ± 2.47
Significance test		F=1.520,P0.222	F=5.077,P0.007	F=0.112,P0.894	
Education	Illiterate	35	60.14 ± 3.89	49.60 ± 3.77	6.65 ± 2.06
	Read & write	27	60.59 ± 4.95	50.07 ± 2.92	6.44 ± 2.27
	Primary	31	58.45 ± 11.56	48.06 ± 4.74	6.71 ± 2.28
	Secondary	35	64.86 ± 8.11	48.20 ± 9.03	5.94 ± 2.49
	University	22	65.23 ± 15.11	43.45 ± 10.02	5.68 ± 2.57
Significance test	<u>l</u>		F=3.174,P0.016	F=3.816,P0.006	F=0.912,P0.459
Monthly income	Not enough	54	59.72 ± 7.50	50.00 ± 3.82	6.33 ± 1.68
	Enough	81	63.48 ± 10.24	47.37 ± 7.10	6.04 ± 2.99
	Enough & save	15	59.40 ± 9.79	45.60 ± 11.27	7.80 ± 1.52
Significance test	l	1	F=3.166,P0.045	F=3.700,P0.027	F=3.216,P0.043
Associated illness	Yes	132	61.48 ± 9.72	47.82 ± 6.69	6.61 ± 2.47
	No	18	63.50 ± 6.92	50.50 ± 7.44	5.17 ± 1.62
Significance test	•	•	t=0.853,P0.395	t=1.574,P0.118	t=4.079,P0.000

DISCUSSION

Aging process is associated with many changes in the human's life this include trying to find the meaning of life, despair and hopelessness, fear of death and dying, grieving as a result of the death of others, and concerns about deterioration of mind and body. These changes can cause special problems in this transitional stage as feeling of loss, loneliness and social isolation, which are more noticeable among the elderly; therefore it requires specific consideration indecreasing these problems among them and improves social support⁽³⁴⁾.

As a result to the findings of the current study, the majority of the elderly reported mild feelings of loneliness and this could be due to, a retirement which leads to loss of daily contact with work colleagues in addition to the routine of getting ready and going out to work and poor physical health that lead to difficult to socialize (figure 2). This result is the same line with previous studies by lauder, 2006 and Routasalo, 2006 reported increase the prevalence of loneliness among the elders^(35, 36). This result corresponds to a study conducted in Korea by Kim, 2009 who reported that moderate loneliness was prevalent among elderly people (37). Incontrast, another study in UK by Dahlberg, 2014 reported that most of the studied subjects did not feel lonely (38). These differences may be due to the differences between communities, and to different demographic characteristics of the current study participants. Those, the majority of them were married, young old, living with their families, and having more than one brothers and sons.

The increasing prevalence of loneliness in old age is related to increased prevalence of the risk factors and predictors for loneliness, rather than the aging effect. The results of the current study revealed that there is a statistically significant relation between loneliness and social status as divorced and widow elders reported a high feeling of loneliness than

married persons (Table 5). This result is matched with the finding of Dahlberg, 2014⁽³⁸⁾, and Aartsen (2011), ⁽³⁹⁾ they stated that the most important predictor of loneliness was widowhood and single people reported a high feeling of it.

Regarding monthly income and loneliness, the findings of the present study revealed a statistically significant relationship between income level and loneliness (Table 5). Pinquart and Sorensen's (2001) stated that persons with high social status have more resources available to them, which can prevent isolation and loneliness⁽⁴⁰⁾. This is in agreement with Chen, 2014⁽⁴¹⁾, and Savikko 2008⁽⁴²⁾, have found a relationship between loneliness and the reported self-sufficiency of financial resources in older persons.

In relation to age, gender, and feeling of loneliness, the present study revealed that the feeling of loneliness increased with advanced age, while no significant relation between male genders with associated illness and loneliness (Table 5). In contrast a study done in Finland by Tilvis, 2011, found that loneliness is more common among older women than in oldermen ⁽⁴³⁾. This is may be due to women have a longer lifespan than men, leading them to widowhood and can express their feelings of loneliness more than men, whilemen express more harmful feelings associated with loneliness.

Depression is a pathological condition with the prevalence of sad mood acting on perception, cognition and emotional experience⁽⁴⁴⁾. The study results revealed that the majority of the participants reported mild feelings of depression (Figure 3). This finding is consistent with Nyqvist, 2013, who reported that the elderly had a mild level of depression⁽⁴⁵⁾. However, a study done in Greece by Carayanni, 2012 found a high prevalence of depression among old age⁽⁴⁶⁾. The present study also revealed a statistically relation between increasing age and the level of depression among the studied subjects as elderly more than 75 years old reported a higher level of depression than young old (Table 5), this could be

related to, increasing age may be associated with many losses as loss of health, friends, spouse and multiple chronic diseases, more than young old. Furthermore the current study reported a significant relation between sex and the level of depression as depression is more prevalent among old male than old female and this finding may be due to the fact that men were working before they reached the age of 60, and the transition to aging was associated with a lifestyle change and sudden loss of power and status. Also in Egypt after age of 60, there is a decline in the role of older men than older women. These results are supported by a study dine in Sweden by Djukanovi, 2015, who stated that men reported more depressive symptoms than women and it increased among men in the age group of 75-80 years (47). However, these results are not in agreement with studies reported that aging depression was higher in women than men (23, 48, 49)

Moreover, the current findings showed that there is a significant relation between depression level and associated illness among the elderly (Table 5); this results are in an agreement with previous studies that reported functional disabilities and chronic conditions were associated with depression (50,51). However these results are incongruent with the previous researches reported that, all the demographic variables were found to be insignificant factors of aging depression, indicating that older people experience depression even when they are highly educated, have a better income, or have a high quality of life (52,53).

As regards the source of social support the findings of the present study reported that elderly people were receiving social support from family and significant others more than support from friends, this result was consistent with the previous study revealed that, social support from family members, has contributed more to the life satisfaction of older people than support from friends (54). Nevertheless, the result is contrast with previous finding reported that friends are a source of emotional support better than family members (55).

The findings of the present study in terms of social support and level of education for the elderly showed a significant relation between education and social support (Table 5), the highest social support was noted in people with a university degree. This result is in agreement with a result of study done in China. By Li, 2011 showed that the level of education had a significant relationship on the social support of elderly persons and that older people with academic degrees enjoyed greater social support (50). The current study also revealed a significant relation between monthly income and social support (Table 5), this result is supported by stephens, 2010 in New Zealand, who demonstrated significant relation between economic problems and reduced perceptions of social support (56).

A major significant risk factor for the development of depression is loneliness. It relatively often leads to serious health problems. Corey, 2013 stated that loneliness is the most significant risk factor for the development of depression ⁽³⁴⁾. This is in the same line with findings ofthe current study revealed a positive significant correlation between depression and loneliness as depression may be

thecause or consequence to loneliness (Table 4). This result is in the same line with other studies; reported that loneliness is accompanied with depression (16, 57). However, the current results revealed a negative significant correlation between social support and loneliness as the presence of social support decrease the feelings of loneliness (Table 4). This result is consistent with previous research by Martin, 2011, who stated that social support protected elderly persons from developing loneliness (58). However these results are incongruent with previous study by Sing, 2012, who revealed that there is no significant relation between loneliness and social support or between depression and social support (15). Moreover the current study reported a negative significant relation between social support and depression (Table 4). A study carried out by Holmer, 2006, found a significantly higher occurrence of depression among older persons without children or those without a partner⁽⁵⁹⁾. Also Mohamed, 2011, found that receiving social support from others protect old persons against late- life depression (23).

CONCLUSION

Based on the results of the current study, it can be concluded that there is mild, significant, positive correlation between loneliness and the level of depression, while there is mild, significant, negative correlation between social support and loneliness, and between social support and depression.

Social support, loneliness, and depression are affected significantly by age, sex, education level, social status, monthly income, and associated illness of the elderly people.

RECOMMENDATIONS

Based on the findings of the current study, the following recommendations are suggested:

- Design an educational program for elders about the importance of social support to reduce loneliness and depression among them.
- In-service training program for all caregivers concerning the importance of avoiding the risk factors of depression, and loneliness. These factors should be taken into account when dealing with the elderly.

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