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Loneliness and Social Dysfunction among Community Dwelling Egyptian Elders: The Mediating Effect of Hope

[1]Marwa Abd El-Gawad Ahmed and [2]Abeer Abd El-Galeel Abd El Moneam

[1]Psychiatric Nursing and Mental Health, Faculty of Nursing,
Alexandria University, Alexandria, Egypt
[2]Gerontological Nursing, Faculty of Nursing, Alexandria University, Alexandria, Egypt

Abstract: Elders are facing more losses and changes in their live therefore they are more susceptible to feelings of loneliness. Loneliness may cause a more negative view of self and others, with the associated impact on social relationships. It is significant to understanding the relationship between loneliness and social dysfunction. It seems also important to study factors, such as hope, that would mediate the relationship between loneliness and social dysfunction. This study aimed to investigate the relationship between loneliness and social dysfunction among Egyptian community dwelling elders and to explore the mediating effect of hope on this relationship. The study was carried out in the Health Insurance Outpatient Clinics of Gamal Abd El-Naser Hospital, Alexandria, Egypt. Subjects comprised a convenience sample of 200 elders. Tools of data collection were; 1) Socio-demographic Data Structured Interview Schedule for elders, 2) Revised UCLA Loneliness Scale (Version 3), 3) Social Dysfunction Rating Scale (SDRS) and 4) Herth Hope Index (HHI). Results revealed that 48.0% of the studied elders had mild level of loneliness and 60.0% had mild level of social dysfunction, While 72.0% of elders had high level of hope. A statistically significant positive correlation was noted between loneliness and social dysfunction. Both loneliness and social dysfunction were negatively and significantly correlated with hope. It was evident that hope mediates the relationship between loneliness and social dysfunction. It can be concluded that high level of loneliness can predict high level of social dysfunction. As well, high levels of hope can predict and contribute to low levels of both loneliness and social dysfunction, so hope acts as a mediator of the relationship between loneliness and social dysfunction among elders. Specific confirmation should be located on the ongoing assessment of hope, developing and implementing nursing interventions to maintain and enhance hope among elders and evaluating the effectiveness of rehabilitative programs on elders' loneliness and social dysfunction through improving their level of hope are recommended.

Key words: Elders · Older Adults · Loneliness · Social Dysfunction · Hope · Mediating Effect

INTRODUCTION

Advancing improvements in health care services result in a growing elderly populations who are living longer than ever before. However, this long life is often connected with the experiment of various losses. These losses incorporate loss of a spouse, family, friends, significant others and social status, also health [1]. The increased probability of such losses might lead to the highest incidence of loneliness [2].

Loneliness is subjectively experienced as unpleasant and painful state of sensing an inconsistency between the required amount of companionship or emotional support and that which is available in the individual's environment [3]. It refers to the feeling lonely, detached, or separated from others [4]. More recently, Cacioppo and Cacioppo [5] described loneliness as an unequalled condition in which the person perceives himself or herself to be socially isolated even when among other people.

Corresponding Author: Abeer Abd El-Galeel Abd El Moneam,Gerontological Nursing, Faculty of Nursing, Alexandria University, Alexandria, Egypt. E-mail: abeer.abdelkafy@alexu.edu.eg.

Loneliness causes suffering to people at any age, but elders are facing more losses and changes in their live therefore they are more susceptible to feelings of loneliness [1, 2]. Previous studies reported that loneliness rates in elders ranging from 20-60 % [6]. It was also estimated that loneliness has increased to over 40% in elders [7, 8]. As the prevalence rates of loneliness rise, its harmful effects on physical and mental health and psychosocial well-being in elders increase [1, 9, 10].

Research evidences suggest that loneliness is associated with cardiovascular disease, immunologic and neuroendocrine changes and increased morbidity in the form of a greater number of chronic diseases. Thus, loneliness is among the main reasons for the increased use of health services, in the form of hospitalization and increased admission into nursing homes[1, 10-12]. It was also reported that loneliness is connected with a 26% increase in the risk of premature mortality [5].

Negative psychological consequences of loneliness include anxiety, sleep problems, increased stress levels, decreased memory, poor decision-making and cognitive decline [1, 5, 12]. Moreover, loneliness is considered a major risk factor for depression and suicidal ideation. Elders who are lonely are more probable to feel depressed [13-15]. This condition makes the elderly self-centered and may cause a more negative view of self and others, with the associated impact on social relationships and activities [12, 16].

Effective social performance in elders is associated with proper social interaction with the environment, satisfaction of the person's needs related to his own goals and how he sees himself as achieving them. Otherwise, social dysfunction mirrors the person`s inability in coping with stressful situational factors and achieving adequate social gratification. It could be defined as the maladaptive method for managing personal or interpersonal environment [17]. It was argued that the distressing feeling of loneliness reflects an interpersonal deficit that exists as a result of fewer or less satisfying social relationships than an individual desires. In this case, it could be said that one's social life is dysfunctioning [13, 18].

A better comprehension of the association between loneliness and social dysfunction would be valuable for several reasons. First, they are important keys in study of health and diseases in elders. Second, both constructs are closely related to depression, suicide risk, poorer physical and mental health and mortality [9, 19]. Third, findings would provide guidance for the potential psychosocial nursing interferences to avoid and reduce these two conditions. Furthermore, it seems important from a practical viewpoint to study factors that mediate the relationship between loneliness and social dysfunction because these factors could expand understanding of the process by which social dysfunction relates to loneliness. One of these factors is hope. It is a main positive emotion which could play an important role in successful aging. Nursing research in the field of positive psychology has established hope as a psychosocial resource elders use to cope with life's adversities [20]. It has a health promoting role in several aspects of living during the aging process [21]. For instance, it was suggested that positive physical and mental health and life satisfaction are connected to high levels of hope. Conversely, reduced levels of hope are connected to increased anxiety and depression, physical symptoms and decrease life satisfaction [21, 22]. In addition, persons who are more expected to experience positive emotions, such as hope, are able to create and maintain social relationships and activities [18, 23].

Nurses have been advised to focus on factors which might promote functioning, physical and mental well-being in elderly [24]. Hope, as a health promoting factor, is of importance for nursing practice. As opportunities have increased for nurses to assume a primary role in the care of elders in a diversity of settings, they are in strategic positions to foster or hinder hope [25]. Understanding the role of hope as a mediator in the relationship between loneliness and social dysfunction among the elderly individuals is crucial to provide a framework for developing strategies to enhance hope in the elders as well as to prevent loneliness and social dysfunction and so improve their psychosocial well-being.

Taking into account the dearth of nursing knowledge regarding the mediating effect of hope on the relationship between loneliness and social dysfunction among elders, this study seeks to contribute to the knowledge of nursing and fill the gap in this area of research.

Aims: This study aimed to investigate the relationship between loneliness and social dysfunction among Egyptian community dwelling elders and to explore the mediating effect of hope on this relationship.

Research Questions:

- What is the relationship between loneliness and social dysfunction among community dwelling Egyptian elders?

- Does hope act as a mediator of the relationship between loneliness and social dysfunction?
- What is the mediating effect of hope on this relationship?

MATERIALS AND METHODS

Materials:

Design: A descriptive correlational research design was utilized.

Setting: The present study was preceded in the Health Insurance Outpatient Clinics of Gamal Abd El-Naser Hospital, Alexandria, Egypt. These clinics include medical, cardiac, urology, neurology, dental and orthopedic clinics. The outpatient clinics work six days a week (Saturday through Thursday), from 8:00 am to 5:00 pm.

Subjects: Based on the hospital outpatient records, the geriatric patients' attendance rate was 350 geriatric patients per three months [26]. The number of the study participants was estimated using the EPI info 0.7 program using the following the statistical access/get health information parameters; population size 350 over three months, expected frequency=50%, acceptable error=10% and confidence coefficient=99%.

The program revealed a minimum sample size to be 184 subjects. Thus, it was decided in the present study to recruit a convenience sample of 200 geriatric patients who fulfilled the following inclusion criteria:

- Aged 60 years and above.
- Able to communicate effectively.
- Agree to participate in the research.

Tools: The following four tools were used in the study to collect the necessary data:

Tool I: Socio-demographic Data Structured Interview Schedule for Elders: This tool was established by the researchers to assess the socio-demographic characteristics of the study subjects which include sex, age, marital status, level of education, occupation before retirement, income sufficiency, living arrangement and place of residence.

Tool II: Revised UCLA Loneliness Scale (Version 3): This tool is a revised version of the original UCLA Loneliness Scale which was developed by Russell *et al.* [27]. The third version of the scale was designed by the psychologist Russell in [28] to measure one's subjective feelings of loneliness and feelings of social isolation.

It consists of 20 items; 9 positively worded and 11 negatively worded. Respondents are asked to rate each item on a 4-point Likert-type scale ranging from 1 (never) to 4(always). The total score is the sum of all 20 items. It produces a possible range of 20-80, with higher scores indicating more intense feelings of loneliness. A score between 20 and 39 denotes "mild loneliness", a score between 40 and 59 reflects "moderate loneliness" and a score between 60 and 80 is the indication of "severe loneliness".

It was reported that alpha coefficients for the UCLA Loneliness Scale ranged from 0.89 to 0.94 [28].

Tool III: Social Dysfunction Rating Scale (SDRS): The SDRS was developed by Linn *et al.* [29] to assess the negative aspects of an individual's social adjustment and functioning. This interviewer-rated scale consists of 21 items deal with the respondent's self-perceptions, interpersonal relations and social performance. Each item is rated on a 6-point rating scale where "not present=1", "very mild=2", "mild=3", "moderate=4", "severe=5" and "very severe=6". The total score for the scale ranges from 21 to 126, with higher scores indicating greater social dysfunction.

In the present study, this tool scaling was reduced to a 4-point Likert scale, from "1= not present" to "4=severe", with a total score ranging from 21 to 84. This total score was divided statistically into three levels; not present to mild (21-41), moderate (42-62) and severe social dysfunction (63-84). (See method for details).

It was proved that the SDRS is valid and reliable (reliability inter-rater reliability ranged from 0.54 to 0.86) [29].

Tool IV: Herth Hope Index (HHI): This tool was established by Herth [30] to assess the current hope state in adults in clinical settings. The HHI consists of 12 items rated on a 4-point rating scale where "strongly disagree=1", "disagree=2", "agree=3" and "strongly agree=4". The total score ranges between 12 and 48. Higher scores reflect higher level of hope.

In the present study, the index scaling was reduced to be "disagree=1" and "agree=2", with a total score ranging from 12-24. On that base, the total score was modified statistically into scores of 12-15, 16-19 and 20-24 for low, fair and high levels of hope, respectively. (See method for details).

It was reported that the HHI was valid and reliable (alpha coefficient was 0.97 with a 2-week test-retest reliability of 0.91) [30].

Method:

- Official permissions to carryout the study from the responsible authorities from the Faculty of Nursing, Alexandria University were obtained.
- An official permission to gather the required data from the head of the study setting was obtained, after being informed about the purpose of the study, the date and time of data collection.
- Tool I was developed and tools II, III and IV were translated into Arabic language.
- Study tools were presented to a jury composed of seven experts in the psychiatric and gerontological nursing fields to test their content validity. They proved to be valid.
- A pilot study was carried out on 20 geriatric patients of those who attending the study setting and meet the criteria of the study sample to ascertain the clarity and applicability of the study tools. These patients were not included in the study sample. The pilot revealed that tools III and IV needed some modifications. These modifications necessitated reducing the scaling of tool III (SDRS) from 6-points to 4-points (not present=1, mild=2, moderate=3 and severe=4). The same process was applied on tool IV (HHI) where its scaling was reduced from 4-points to become "disagree=1" and "agree=2", with a total score ranging from 12-24. This was done statistically for both tools to be more specific and trenchant because of the difficulty elderly subjects were facing in differentiating between various points on the two scales.
- Reliabilities of the study tools were tested using Cronbach's alpha coefficient method on a sample of 20 geriatric patients who were attending the clinic and met the criteria of the study sample. Tools II, III and IV proved to be reliable (α=0.832, 0.984 and 0.795 respectively).
- All available geriatric patients who met the inclusion criteria were recruited as the study subjects, where the researchers used to attend the study setting all 6 working days of the clinics from 8:00 am to 5:00 pm.
- Geriatric patients were interviewed individually by the researchers in the waiting area of the outpatient clinics to collect the necessary data using the study tools. This was done after explaining the purpose of study.
- Collection of data covered a period of 3 months started from the beginning of April 2018 till the end of June 2018.

Ethical Considerations:

- Informed witness consent was obtained from each study subject after explaining the purpose of the study.
- Subjects' privacy and anonymity were assured and respected.
- Data confidentiality was considered and respected.
- The right to withdraw from the study at any time was assured.

Statistical Analysis: The collected data were coded and entered in special format to be suitable for computer feeding. Data were analyzed using the statistical package for social science SPSS (version 20). Descriptive statistical measures (numbers, percentages and averages minimum, maximum, arithmetic mean, standard deviation) and statistical analysis tests (Chi square, Student t-test, F-test {ANOVA}, Pearson Correlation Coefficient, Wald test and regression analysis) were used. Levels of significance selected for this study were "p" equal to or less than 0.05 and 0.001.

RESULTS

Table (1) shows the studied elders' socio-demographic characteristics and their relationship with elders' mean scores of loneliness, social dysfunction and hope. It was observed that males constituted 52.0% of the studied elders. Elders' age ranged between 60 and 80 years, with a mean age of 65.30±4.33 years. Those who aged from 60 to less than 65 years constituted 56.0% of the study participants. Near to three quarters of the studied elders (74.0%) were married, while the rest were either widowers or divorced (20.0and 6.0% respectively).

As regard the educational level, more than one third of the study participants (36.0%) had secondary or technical education and only 6.0% of elders were either illiterate or completed their basic education. As regards subjects' occupation, 52.0% of the studied elders worked as employees or clerks before their retirement, whereas housewives constituted 32.0% of the studied elders. More three quarters of the studied elders (76.0%) considered their income as sufficient.

Regarding subjects' cohabitation, the studied elders who were living with husbands or wives and with sons or daughters constituted 74.0 and 10.0% respectively. Those who were living alone constituted 16.0% of the studied elders. Most of the studied elders (78.0%) were living in urban areas.

Table 1: Studied elders' socio-demographic characteristics and their relationship with elders' mean scores of loneliness, social dysfunction and hope

Elders' socio-demographic characteristics	(n.= 200) No.	%	Loneliness (Mean ± SD)	Social dysfunction (Mean ± SD)	Hope (Mean ± SD)
Sex					
Male	104	52.0	35.38±14.484	33.54±18.222	21.65±3.612
Female	96	48.0	49.42±17.587	49.63±20.052	19.83±4.311
Test of significance			t = 238.166**	t = 35.328**	t = 10.537**
			p = 0.000	p = 0.000	p = 0.001
Age (in years)					
60 -	112	56.0	34.75±14.144	32.75±16.415	22.36 ± 2.75
65 -	68	34.0	53.75±16.599	53.18±20.481	18.35±4.825
70 -	4	2.0	69.00±0.000	74.00±0.000	16.00±0.000
75 - 80	16	8.0	37.50±10.392	42.00±18.69	21.25±2.569
Min - Max	60 - 80				
Mean ± SD	65.30 ± 4.33				
Test of significance			F = 28.639**	F = 22.789**	F = 20.227**
			p = 0.000	p = 0.000	p = 0.000
Marital status					
Married	148	74.0	35.81±13.746	33.57±15.716	22.32±2.711
Widowed	40	20.0	63.40±11.602	66.50±13.961	16.20±3.646
Divorced	12	6.0	49.00±17.120	52.00±22.931	17.00±5.326
Test of significance			F = 66.773**	F = 70.611**	F = 70.285**
			p = 0.000	p = 0.000	p = 0.000
Level of education					
Illiterate	12	6.0	35.33±11.578	39.33±22.113	20.67±4.207
Read & write	44	22.0	56.00±13.816	61.18±18.385	18.09±3.820
Basic education	12	6.0	46.33±3.551	44.67±3.229	22.67±0.492
Secondary/technical education	72	36.0	40.78±17.985	37.89±19.696	20.72±4.270
University education	60	30.0	34.07±15.823	30.40±14.384	22.47±3.249
Test of significance			F = 13.596**	F = 20.829**	F = 9.457**
			p = 0.000	p = 0.000	p = 0.000
Occupation before retirement					
Employee/clerk	104	52.0	34.58±15.130	30.62±15.308	22.23±3.348
Housewife	64	32.0	53.06±15.866	57.00±18.910	19.00±4.110
Free work	20	10.0	47.00±15.868	47.60±16.816	19.40±4.430
Technical work	12	6.0	41.00±15.160	39.00±20.837	20.00±4.431
Test of significance			F = 19.666**	F = 32.780**	F = 10.870**
			p = 0.000	p = 0.000	p = 0.000
Income sufficiency					
Sufficient	152	76.0	36.37±15.403	33.47±16.513	22.00±3.406
Insufficient	48	24.0	60.33±9.274	65.92±11.059	16.92±3.512
Test of significance			t = 104.046**	t = 162.028**	t = 80.048**
			p = 0.000	p = 0.000	p = 0.000
Cohabitation/Living arrangement					
Husband/wife	148	74.0	21.97±5.582	30.42±15.582	22.10±2.844
Alone	32	16.0	68.88±3.982	71.13±5.552	13.88±1.862
Son/daughter	20	10.0	37.02±14.07	35.57±17.370	16.50±4.591
Test of significance			F = 2.662*	F = 131.039**	F =29.662**
			p = 0.051	p = 0.001	p = 0.001
Place of residence					
Urban	156	78.0	37.49±16.346	35.00±18.202	21.51±3.725
Rural	44	22.0	58.55±9.868	63.45±11.987	18.18±4.156
Test of significance			t = 66.081**	t = 95.634**	t = 26.058**
			p = 0.000	p = 0.000	p = 0.000

F: F test (ANOVA) t: Student t-test *: Statistically significant at $p \leq 0.05$ **: Statistically significant at $p \leq 0.001$

Table 2: Levels and mean scores of loneliness, social dysfunction and hope among the studied elders

	Levels		Mean Scores	
Variables	(n.=200)	%	Min- Max	M ± SD
Loneliness (Total score range=20-80)				
- Mild (20-39)	96	48.0	21-77	42.12±17.482
- Moderate (40-59)	56	28.0		
- Severe (60-80)	48	24.0		
Social dysfunction (Total score range=21-84)				
- Mild (21-41)	120	60.0	21-80	41.26±20.706
- Moderate (42-62)	20	10.0		
- Severe (63-84)	60	30.0		
Hope (Total score range=12-24)				
- Low (12-15)	36	18.0	12-24	20.78±4.056
- Fair (16-19)	20	10.0		
- High (20-24)	144	72.0		

Table 3: Correlation matrix between the studied elders' loneliness, social dysfunction and hope

Variables	Loneliness	Social dysfunction	Hope
Loneliness			
r. (p)			
Social dysfunction			
r. (p)	0.913** (0.000)		
Hope			
r. (p)	-0.878** (0.000)	-0.842**(0.000)	

r = Pearson correlation coefficient **: Significant value at p≤0.001

Table 4: Regression analysis for the mediating effect of hope on the relationship between loneliness and social dysfunction

Variables	β	SE	Wald	p
Loneliness → Social dysfunction	0.658*	0.301	2.177	0.032
Loneliness → Hope	- 0.142**	0.040	12.53	0.000
Social dysfunction → Hope	- 0.553*	0.045	1.372	0.041

β: Standardized beta coefficient SE: Standard Error Wald: Wald test

*: Statistically significant at p≤0.05 ** Significant value at p≤0.001

It can be noticed that all subjects' socio-demographic characteristics made statistically significant differences in their loneliness, social dysfunction and hope (p≤0.05 and p≤0.001). Higher mean scores of both loneliness and social dysfunction were prevalent among females, those who aged from 70 to less than 75 years, widowed, could only read and write housewives, had insufficient income, were living alone and were residing in rural areas. On the other hand, mean score of hope was higher among males, those who aged from 60 to less than 65 years, were married, had basic education, worked as employees or clerks before retirement, had sufficient income, were living with husband or wife and were living in urban areas.

Table (2) presents levels and mean scores of loneliness, social dysfunction and hope among the studied elders. One can notice that (48.0%) of the studied elders reported having mild level of loneliness, with a mean score of 42.12±17.482.

Moreover, 60.0% of the studied elders had mild level of social dysfunction, with a mean score of 41.26±20.706. As regards hope, it was found that 72.0% of elders had high level of hope, with a mean score of 20.78±4.056.

Table (3) displays a correlation matrix between the studied elders' loneliness, social dysfunction and hope. A statistically significant positive correlation was found between loneliness and social dysfunction (r=0.913, p=0.000). Furthermore, both loneliness and social dysfunction were negatively and significantly correlated with hope (r=-0.878, p=0.000 and r=-0.842, p=0.000, respectively).

Table (4) presents the mediating effect of hope on the relationship between loneliness and social dysfunction using regression analysis. It was noted that loneliness was significantly and positively correlated with social dysfunction (β=0.658, p=0.032) which indicates that high level of loneliness significantly predicts high level of social dysfunction.

On the other hand, both loneliness and social dysfunction are significantly and negatively correlated with hope (β= –0.142, p=0.000 and β= –0.553, p=0.041, respectively), so hope significantly predicts loneliness and social dysfunction in a negative direction. This result means that high levels of hope predict low levels of both loneliness and social dysfunction and vice versa; low levels of hope predict high levels of both loneliness and social dysfunction. Therefore, it can be inferred that hope functions as a mediator of the relationship between loneliness and social dysfunction.

DISCUSSION

The current research provides information about the kind of relationship between loneliness and social dysfunction among community dwelling Egyptian elders. The results revealed that the studied elders` loneliness is significantly and positively correlated with their social dysfunction. Indeed, nearly half of the studied elders had only mild level of loneliness and at the same time, more than a half of these studied subjects reported also only mild level of social dysfunction. These parallel patterns of levels for loneliness and social dysfunction suggest that they may be related to each other. These findings also indicate that high level of loneliness is significantly associated with high level of social dysfunction. This means that the studied elders' experience of loneliness may be linked with lack of significant social relationships and inadequate performance of social activities.

It seems that when elders feel lonely, they may lose ability to maintain social relationships and become unable to interact frequently with others. In this regard, Cacioppo *et al*. [9] emphasized that loneliness can lead to physical, mental and social dysfunctions. More specifically, Cacioppo and Cacioppo [5] added that loneliness has been connected to objective social isolation, introversion and poor social skills. It was noticed that elders are often at risk for loneliness because of disruptions to social networks over time [11]. Likewise, Akinbohun [1] reported that some elders may be faced with the challenges of deteriorating physical functioning and other kinds of losses that prevent them from being involved in meaningful social activities that could alleviate the feelings of loneliness. Perhaps, the elders may feel lonely, abandoned and socially isolated because they experiencing various losses in their life, including loss of freedom, autonomy, spouse, friends and health,. Moreover, as a result of age-related disabilities, elders encounter difficulties in communicating with significant others and they may begin disengaging from their social relationships and activities, thus increasing the opportunity of loneliness. Social dysfunction in the form of reduced social relationships and activities could also be ascribed to the truth that most elderly suffer from poor functional status and lack of transportations, which may have an impact on their social participation, contacts with friends and outdoors activities and may intensify the elderly feeling of being lonely.

These explanations are supported by many studies which claimed that health problems, physical diseases and life course changes, such as retirement, death of a spouse, bereavement and the greater likelihood of living alone, may cause loneliness and loss of social roles and limit sharing in social activities [1, 12, 24, 31, 32]. These claims also appear in accordance with the results of the present study where the studied subjects already were patients who used to attend the outpatient clinics to treat their health problems and/or to monitor their health status. In addition, the present study findings indicated that loneliness and social dysfunction are more prevalent among the studied elders who are widowed and live alone. Previous studies stated that a decline in socially supportive relationships and the non-existence of social integration are negative factors that increase the likelihood of loneliness. These studies argued that people who are not engaged in social interactions may experience feelings of loneliness [11, 33, 34]. It was also emphasized that persons who are socially dysfunctioning have small social networks and rarely participate in social activities which may cause loneliness [24, 31].

In this respect, Solanki [2] described loneliness as a subjective negative feeling related to the person's own experience of deficient social relations. For other researchers, loneliness means the paucity of social contacts, the nonexistence of people available or eager to share social and emotional experiences. Furthermore, loneliness is the condition whereby a person has the ability to network with others, but is not doing so because of an incongruity between the actual and desired dealings with others [35]. Loneliness also may be described as the unpleasant experience that emerges when a person's network of relationships is undersupplied in a certain way [36]. Yet, having a social environment, in which social integration, social connection and relationships and a sense of community are a part, can reduce loneliness in later life [3]. Furthermore, it was argued that factors, such

as frequent contacts, social participation and family support, are instrumental in preventing the feeling of loneliness [37, 38]. In this context, the present study questioned whether hope can serve as a mediating factor on the relationship between loneliness and social dysfunction. The study results showed positive responses to this question. This is revealed by the significant negative correlation of both loneliness and social dysfunction with hope, where hope significantly predicts loneliness and social dysfunction in a negative direction. Thus, high levels of hope predict low levels of both loneliness and social dysfunction; when hope increases, both loneliness and social dysfunction decrease. In other words, hopeful elders are less probable to feel lonely, which results in low level social dysfunction. This result indicates that hope functions as a particularly effective mediator underlying the positive relationship between loneliness and social dysfunction.

Actually, successful aging needs good social function in the form of engaging in social activities and maintaining meaningful social relationships with others. It could play a role in the process to get a healthier life and a successful aging [39]. Due to confronting numerous physical and psychosocial losses during the aging process, the elders often are challenged with the task of maintaining hope in the face of losses. Thus, hope has been cited as a "key" or "prerequisite" to effective coping [25].

Pradhan [37] argued that loneliness is not just being socially disconnected with near and dear ones, but also being not socially integrated with a society of which the person is a part. The lonely individuals don`t find any meaning in their present social relationships. In this case, hope has come to be seen as an 'antidote' to loneliness and social dysfunction [40]. This point is supported by the current study finding where most of the studied elders have high level of hope and both loneliness and social dysfunction are significantly and negatively correlated with hope; when this level of hope increases, both loneliness and social dysfunction decrease. In the same direction, it was noted that higher levels of hope are related to higher social competence and less loneliness [41]. Although not specifically focused on loneliness and social dysfunction, Yu and Lee [42] found a mediating effect of hope in the relationship between acculturative stress and depression. They stated that hope is a positive status with motivation which allows subjects to cope with the present difficulty for a better life, as a way of reducing acculturative stress. The present study findings are also in a partial agreement with the research of Zhang *et al.* [43] who found that social engagement is associated with a significant lower rate of loneliness and that social engagement is significantly and negatively related to both loneliness and hopelessness.

However, a possible explanation of the present study results is that hopeful individuals most probably have a high level of self-esteem, self-worth, purpose and meaning in life, feeling belonging and optimistic outlook for self and others. These qualities may help them not only to engage in warm and positive social relationships, but also attempt to increase their social interactions and activities and eliminate feeling of loneliness. In this respect, Gum *et al*. [44] suggested that elders with more hopeful views can achieve goals, reporting a stronger sense of belonging, less perceptions of being a burden on others and have less perceived social losses compared to hopeless elders. On the other hand, loneliness and pain about loneliness can predict hopelessness. Conversely, loneliness may lead elders to be hopeless about their future.

On the other hand, Eraslan-Capan [45] found that individuals with low levels of social connectedness are likely to be hopeless. The researchers attributed their findings to the low nature of social connectedness. People who do not feel affiliated with a group, cannot get support from their social environment and cannot share their feelings and thoughts. They also do not have life goals and motivation to achieve these goals. The negative perception they have about themselves and others affects their perception of future in a negative way that is why, those individuals live hopelessness.

Once again, the evidences of the present study are presented to indicate that the studied elders who are able to maintain high level of hope, may gain social benefits including reduced levels of both loneliness and social dysfunction.

CONCLUSION

The results of the present study demonstrated that elders' loneliness is significantly and positively correlated with social dysfunction. Therefore, it can be concluded that high level of loneliness can predict high level of social dysfunction. As well, both loneliness and social dysfunction are negatively and significantly correlated with hope. Thus, high levels of hope can predict and contribute to low levels of both loneliness and social dysfunction. On that base, the present study highlights the mediating effect of hope on the relationship between loneliness and social dysfunction among elders.

Recommendations: The followings are the main recommendations yielded by this study:

- Specific confirmation should be located on the ongoing assessment of the level of hope among elders in different healthcare settings. This is significant to predict their levels of loneliness and social dysfunction.
- Developing and implementing psychosocial nursing interventions are needed to maintain and enhance hope among elders in order to alleviate or prevent loneliness and social dysfunction.
- Continuous educational programs for nurses are essential to have a better comprehension of the mediating effect of hope on the relationship between loneliness and social dysfunction among elders.
- Educational programs for elders and their caregivers should focus on raising awareness on the significance of hope in reducing elders' social dysfunction and loneliness in order to attain successful aging.
- Considering the mediating role of hope, further studies are required to examine the efficacy of rehabilitative programs on elders' loneliness and social dysfunction through improving their level of hope.
- Further research is required to study other mediators of relationship between loneliness and social dysfunction among elders.

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