

Relationship of Loneliness and Social Isolation With Self-Care Ability Among Older Adults

ABSTRACT

The current study aimed to assess the relationship of loneliness and social isolation with self-care ability (SCA) among older adults. Participants were 170 older adults randomly recruited from seven urban health care centers in Gonbad Kavus, Iran. Data were collected using a personal characteristics questionnaire, the UCLA Loneliness Scale, Lubben Social Network Scale, and Self-Care Ability Questionnaire for the Elderly. Findings showed that 72.9% of participants reported mild loneliness and 2.4% reported severe loneliness. Mean scores of participants' loneliness, social isolation, and SCA were 29.91 ($SD = 11.22$), 18.57 ($SD = 4.97$), and 146.39 ($SD = 7.62$), respectively. Mean SCA score had a significant inverse relationship with mean loneliness score ($\beta = -0.368$; $p < 0.0001$) and a significant direct relationship with mean social isolation score ($\beta = 0.726$; $p < 0.0001$). Current findings can be used to develop interventions for reducing loneliness and social isolation and improving SCA among older adults. [*Journal of Psychosocial Nursing and Mental Health Services*, 59(1), 15-20.]



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The global older adult population is progressively increasing due to improvements in health care services, living status, and life expectancy (United Nations, 2019). According to The Statistical Center of Iran (2017), the older adult population of Iran increased from 5.1 million (7.3%) in 2006 to 6.2 million (8.3%) in 2011.

Aging is associated with many different physical, cognitive, and functional changes (Azadbakht et al., 2014; Pakpour et al., 2017), which increase the risk of chronic conditions by three to five times (Araújo et al., 2011), putting older adults at risk for different

physical, mental, and social health problems (Kennedy et al., 2014); reducing their quality of life; and increasing health care-related costs. Age-related health problems also cause difficulties in performing daily and self-care activities (Guo et al., 2017), causing older adults to be dependent on others in carrying out these activities (Araújo et al., 2011).

Self-care is a significant factor affecting health-related outcomes (Hemmati Maslak Pak & Hashemlo, 2015). By definition, *self-care* is conscious and intentional learned activities that individuals perform to protect their lives and maintain and promote their own

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and their families' health. *Self-care ability* (SCA) refers to the ability to perform self-care activities (Bagheri Nesami et al., 2016). SCA allows individuals to perform daily activities, promotes autonomy, increases social effectiveness, boosts hope for the future, and enhances quality of life (O'Shaughnessy, 2014). Moreover, SCA among older adults influences health-promoting behaviors and their ability to manage chronic conditions (Guo et al., 2017). Previous studies reported that SCA had a significant inverse relationship with mental disorders, such as depression and stress (Bagheri Nesami et al., 2015; Bible et al., 2017), and risk of malnutrition (Söderhamn et al., 2008), and a significant direct relationship with perceived health status (Söderhamn et al., 2008).

Social isolation and loneliness are among the factors with potential effects on SCA (Roos & Malan, 2012; Valtorta & Hanratty, 2012). *Social isolation* refers to limited or lack of intentional relationships with others or a specific group of people (Cohen-Mansfield & Perach, 2015; Ibrahim et al., 2013). *Loneliness* is a mental experience resulting from the loss of meaningful and valuable interactions and no access to new meaningful interactions at the current time and is described as the sense of being alone, isolated, or abandoned (Gardiner et al., 2018; The et al., 2014). The prevalence of loneliness and social isolation among older adults is approximately 20% to 25% (Palmer, 2019). Scholars believe that with no appropriate plans for loneliness management among older adults, there will be a global epidemic of loneliness by 2030 (Holt-Lunstad et al., 2015). Loneliness and social isolation have significant relationships with a wide range of health-related outcomes, including depression, anxiety, negative emotions, cognitive dysfunction, Alzheimer's disease, chronic conditions, cardiovascular disease, quality of life, general health status, and sense of well-being (Cohen-Mansfield & Perach, 2015; Courtin & Knapp, 2017; Kim et al., 2009).

Some studies evaluated the relationship of SCA with loneliness and social isolation. For instance, a study on patients receiving hemodialysis in Turkey reported that SCA had a significant inverse relationship with loneliness (Akin et al., 2014). A study in Iran also found that loneliness had a significant inverse relationship with the ability to perform some daily activities, such as getting dressed and performing outdoor activities (Miri et al., 2017), and was a significant predictor of suicide (Sheikholeslami et al., 2011). Another study in Iran also showed that older adults with good general health status had lower levels of loneliness (Sheikholeslami et al., 2011). The results of a meta-analysis also showed that loneliness, social isolation, and living alone increase the risk of premature death by 26%, 29%, and 31%, respectively (Holt-Lunstad et al., 2015). However, these studies did not address the relationship of loneliness and social isolation with SCA among older adults and hence, there are limited data in this area. We conducted the current study to narrow this gap. The aim of the study was to assess the relationship of loneliness and social isolation with SCA among older adults.

METHOD

The current correlational study was conducted in 2018. The study population comprised older adults referred to seven urban health care centers in Gonbad Kavus, Iran. Approximately 25 eligible older adults were randomly selected from each center (170 in total) using a table of random numbers. Eligibility criteria were age >60 years, no affliction due to a debilitating physical condition or known mental disorders, and basic literacy skills. With a confidence level of 95%, a power of 80%, and a probable attrition rate of 40%, sample size was calculated to be 170.

Data were collected using a personal characteristics questionnaire, the UCLA Loneliness Scale, the Lubben Social Network Scale, and the

Self-Care Ability Questionnaire for the Elderly. Participants were asked to complete these instruments through self-report.

Items included on the personal characteristics questionnaire were age, gender, marital status, educational level, income, family structure, employment status, history of major health problems, and perceived health status.

The UCLA Loneliness Scale (Russell et al., 1978) includes 20 items scored on a 4-point scale from 1 (*never*) to 4 (*always*), resulting in a total score of 1 to 80, with higher scores indicating greater loneliness. The total score is interpreted as follows: scores 1 to 20 indicate absence of loneliness; scores 21 to 40 indicate mild loneliness; scores 41 to 60 indicate moderate loneliness; and scores 61 to 80 indicate severe loneliness. The concurrent validity and the test-retest correlation coefficients of this scale were reported to be 0.83 and 0.89, respectively (Russell et al., 1978). This scale was translated into Persian and psychometrically evaluated in a previous study in Iran, which reported a Cronbach's alpha of 0.86 (Zarei et al., 2016).

The Lubben Social Network Scale (Lubben, 1988) is a self-report scale with six items on relationships with family members and relatives (three items) and relationships with friends and neighbors (three items). Items are scored on a 6-point Likert scale as follows: 0 = *none*, 1 = *one person*, 2 = *two persons*, 3 = *three to four persons*, 4 = *five to eight persons*, and 5 = *nine and more persons*. Therefore, the total score of the scale ranges from 0 to 30, with lower scores showing more severe social isolation. Cronbach's alpha of the original version of this scale was 0.82 (Lubben, 1988). In the current study, the scale was translated by the authors and its face and content validity were assessed and approved by 10 experts in nursing recruited from the authors' institution. For reliability assessment, 20 older adults aged >60 years completed the scale twice, once before and after a

10-day interval. Test–retest correlation coefficient and Cronbach’s alpha were 0.8 and 0.78, respectively.

The Self-Care Ability Questionnaire for the Elderly was developed in a previous study in Iran (Hemmati Maslak & Hashemlo, 2015). The questionnaire comprises 40 items in five dimensions, namely physical (nine items), daily (six items), emotional (six items), social (nine items), and disease-related (10 items) self-care. Items are scored on a 4-point Likert scale from 1 (*never*) to 4 (*often*). Total possible score ranges from 40 to 160, with higher scores showing higher SCA. The face and content validity of the questionnaire was assessed and confirmed in a previous study and Cronbach’s alpha was reported as 0.86 (Hemmati Maslak & Hashemlo, 2015).

This study was approved by the Ethics Committees of Tehran and Golestan Universities of Medical Sciences, Tehran and Gorgan, Iran. Written informed consent was obtained from all participants.

Data were analyzed using SPSS version 16. Data were reported using descriptive statistics.

RESULTS

In total, 170 sets of instruments were distributed among 170 participants. All participants completely answered the study instruments and all were included in the final analysis. Most participants were male (65.3%), had diploma education or less (89.4%), and were unemployed or retired (85.9%). Participants’ mean age was 65.87 years (*SD* = 5.28, range = 60 to 83) (Table 1).

Mean scores of participants’ loneliness, social isolation, and SCA were 29.91 (*SD* = 11.22, range = 20 to 79), 18.57 (*SD* = 4.97, range = 4 to 30), and 146.39 (*SD* = 7.62, range = 104 to 159), respectively. Simple linear regression analysis showed that the mean score of SCA had a significant inverse relationship with the mean score of loneliness ($\beta = -0.368$; $p < 0.0001$) and a significant direct relationship with the mean score of social isolation ($\beta = 0.726$; $p < 0.0001$). These findings denote that

TABLE 1
PARTICIPANT CHARACTERISTICS (N = 170)

Characteristic	n (%)
Gender	
Male	111 (65.3)
Female	59 (34.7)
Underlying conditions ^a	
Hypertension	80 (47.1)
Diabetes mellitus	42 (24.7)
Gastrointestinal problems	42 (24.7)
Cardiovascular problems	40 (23.5)
Respiratory problems	24 (14.1)
Hypothyroidism	21 (12.4)
Marital status	
Married	162 (95.3)
Widowed	8 (4.7)
Educational level	
Basic	56 (32.9)
Primary	47 (27.6)
Secondary	19 (11.2)
Diploma	30 (17.6)
Associate’s degree	11 (6.5)
Bachelor’s degree	7 (4.1)

TABLE 1 (CONTINUED)
PARTICIPANT CHARACTERISTICS (N = 170)

Characteristic	n (%)
No. of underlying conditions	
0	28 (16.5)
1	50 (29.4)
2	35 (20.6)
3	19 (11.2)
≥4	38 (22.4)
Employment status	
Retired	85 (50)
Unemployed	61 (35.9)
Employed	24 (14.1)
Perceived health status	
Very good	22 (12.9)
Good	72 (42.4)
Moderate	71 (41.8)
Poor/very poor	5 (2.9)
Family structure	
Nuclear	135 (79.4)
Extended	31 (18.2)
Single-person	4 (2.4)

^a Each participant most likely had more than one underlying condition.

SCA had a significant inverse relationship with loneliness and social isolation. Moreover, the results of multiple linear regression analysis showed that the significant predictors of SCA were loneliness, social isolation, respiratory problems, unemployment, and very good health status ($p < 0.05$) (Table 2).

DISCUSSION

The current study aimed to assess the relationship of loneliness and social isolation with SCA among older adults. Findings showed that SCA had a significant inverse relationship with loneliness and social isolation.

In the current study, participants’ mean SCA score was 146.39 (*SD* = 7.62), denoting high SCA. Similarly, a previous study reported high SCA among older adults in Iran (Bagheri Nesami et al., 2016). However, another study reported low SCA among older adults in Iran (SangSefidi et al., 2018). This contradiction may be due to differences between the studies in regard to SCA measurement instruments, participants’ educational level, and study settings. For instance, the setting of the previous study was parks and mosques (SangSefidi et al., 2018), whereas the current setting was urban health care centers.

TABLE 2

SIMPLE AND MULTIPLE LINEAR REGRESSION ANALYSES FOR THE RELATIONSHIP OF LONELINESS AND SOCIAL ISOLATION WITH SELF-CARE ABILITY

Regression Analysis/ Independent Variable	β	SD	p Value
Simple linear			
Loneliness	-0.368	0.044	<0.001
Social isolation	0.726	0.104	<0.001
Multiple linear			
Loneliness	-0.212	0.049	<0.001
Social isolation	0.302	0.109	0.006
Respiratory problems	-4.117	1.587	0.01
Unemployment	-3.681	1.757	0.04
Very good health status	6.176	2.959	0.04
Hypothyroidism	-2.698	2.107	0.21
Good health status	3.077	2.789	0.27
Gastrointestinal problems	-1.314	1.387	0.34
Moderate health status	2.391	2.656	0.37
Number of underlying conditions	0.441	0.634	0.49
Diabetes mellitus	-0.778	1.212	0.52
Hypertension	-0.55	1.15	0.63
Gender	-0.598	1.438	0.68
Retirement	-0.526	1.391	0.71
Age	0.009	0.094	0.92
Cardiovascular problems	-0.01	1.428	0.99

Note. Variables arranged according to level of significance (p value).

Current study findings show that 88.2% of participants complained of different levels of loneliness, and only 11.8% of participants did not report loneliness. Mean loneliness score was 29.91 (*SD* = 11.22), which indicates mild loneliness. This finding is in line with findings of two previous studies in Iran on home-dwelling older adults and nursing home residents (Hojjati et al., 2012) and older adults referred to health care centers (Miri et al., 2017). Contrary to our findings, a study on patients receiving hemodialysis in Turkey showed participants had a moderate

level of loneliness (Akin et al., 2014). This difference may be due to the fact that participants in the previous study were patients receiving hemodialysis, whereas participants in the current study did not receive hemodialysis. Moreover, all participants were age >60 years, whereas participants in the previous study comprised different age groups (Akin et al., 2014).

Mean score of social isolation in the current study was 18.57 (*SD* = 4.97), which denotes moderate social isolation among participants. A previous study reported slightly more severe so-

cial isolation among older adult women aged >78 years (Crooks et al., 2008). This difference may be due to the fact that participants in the previous study were all women and older than current participants. Two other studies also reported moderate social isolation among community-dwelling older adults (Bahramnezhad et al., 2017; Callen, 2011).

Our findings also showed a significant inverse relationship between loneliness and SCA (β = -0.368). In line with this finding, previous studies showed that loneliness was inversely correlated with SCA among patients receiving hemodialysis (Akin et al., 2014), with social support and functional disability among older adults (Evert et al., 2003; Mirdrikvand et al., 2016), and with the level of daily activities among older adults (Miri et al., 2017). All findings confirm that greater loneliness is associated with lower SCA.

We also found that SCA had a significant inverse relationship with social isolation (β = -0.726). A previous study on patients with psychosis reported that the level of poor SCA was 50% among those with social isolation, 46.9% among those with family-dominated social networks, 34.8% among those with friend-dominated social networks, and 22.6% among those with friends and families in their social networks (Evert et al., 2003). In other words, more severe social isolation was associated with poorer SCA (Evert et al., 2003). Another study reported that SCA had a significant relationship with the extraversion personality trait (Noroozi et al., 2014). Extraversion can reflect the extent of one's social network and the degree of their social isolation.

In Iran, after retirement, older adults spend more time at home and decrease their social activities and relationships with friends and relatives. Relationships of older adults are limited to their immediate family members (e.g., spouse, children), and if their spouse

dies, this relationship becomes much more limited. Therefore, they may experience loneliness and social isolation, and their SCA may be affected.

IMPLICATIONS FOR NURSING

Nurses have a key role in the health care system, and one of their most important roles is to identify patients' problems, prioritize them, and plan to prevent and eliminate these problems. Accordingly, geriatric nurses with this specialized knowledge can play a key role in assessing the needs and problems threatening the health of older adults. The results of the current study can help nurses and other health care providers design appropriate interventions to reduce loneliness and social isolation of older adults and increase their SCA.

CONCLUSION

SCA was found to have significant negative relationships with loneliness and social isolation, in that older adults with greater loneliness and more severe social isolation have poorer SCA. The results of this study can be used to design and conduct interventional studies for improving SCA; promoting autonomy in self-care activities; and reducing loneliness and social isolation among older adults. Studies with larger samples of community-dwelling older adults and nursing home residents are recommended to produce more reliable results.

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