

# Evaluation of two Psychophysical Health Indicators in Elderlies of Bam

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## ABSTRACT

**Background:** The number of old people is rapidly rising in all regions of the world. Given the numerous psychological problems threatening elderlies and the poor social support of those living in retirement homes, this study attempts to evaluate two psychophysical health indicators in elderlies of the city of Bam (Kerman, Iran). **Methods:** This study was an applied survey conducted on all elderlies living in Sepehr Senior Home in Bam. Participants were selected by census sampling. Data were gathered by the Pittsburgh Sleep Quality Index (PSQI) and the University of California Los Angeles (UCLA) Loneliness Scale and then analyzed in IBM SPSS Statistics. **Results:** The mean score of social isolation was  $48.06 \pm 15.7$ . Social isolation was most frequently observed in 43.8% of elderlies. The mean score of sleep quality was  $16.76 \pm 8.65$ . Sleeping problems were frequently found in 38.8% of elderlies with poor quality of sleep. **Conclusion:** Our findings can help clinical nurses and health caretakers of senior homes to reach a better recognition of older persons' mental health conditions and enable them to sleep better and socially interact more efficiently. This study further can highlight the problems of elderlies and inspire more nursing scholars to conduct more research in this context.

**Keywords:** Elderlies, psychophysical health, quality of sleep, social isolation, Bam county.

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## INTRODUCTION

Health is a subject of interest in human studies. Psychologists and physicians attempt to shed light on how to improve the scene of health in people. Alterations in the pattern of diseases resulting in the diminished rate of infectious and acute illnesses have highlighted the concept of health in past decades (1). Due to its importance, many experts tend to direct healthcare services toward improving the health of other people (2). There are many definitions of the concept of health, all of which cover self-responsibility and choosing a right and healthful lifestyle (3).

WHO experts define mental health as the ability of harmonic interactions, alteration and reform of personal and social settings, elimination of conflicts, and satisfying personal desires in a logical, fair, and proper manner. They believe that mental health is not merely having no mental illness, but having the huge ability to respond to many experiences in a flexible manner (4).

In each society, physical, mental, social, and cultural health, as well as interest in spiritual issues and providing necessary infrastructures for a healthy and dynamic life will ensure the health of that society. Thus, the health of all folks of life should be respected. A leading factor that impacts the health of many people

is entering old age and coping with the aging process. At this age, physical problems and limitations of elderlies are among the subject of interest for many researchers due to their high potential for debilitation.

Simultaneous with exponential progress in science and technology, the population of elderlies is growing rapidly. According to the Iranian Population and Housing Census, 9.4% of Iranian residents were over 60 years old in 2015. This figure is predicted to reach over 10% by 2025, and 21% to 25% by 2051. In Iran, therefore, old age and its associated aspects should be considered as one of the leading challenges in the future (5).

Quality of sleep is an issue that affects various aspects of the physical and mental life of elderlies. Sleep quality is the measurement of how well the person experience sleeping so that he or she feels the sense of being comfortable and satisfied with sleeping (6). In various studies, old persons have reported some problems with sleeping (7). Old people necessarily need special hygienic, psychological, and welfare services (8). Hweidi and Al-Obeisat (9) think that the need for all-inclusive attention to elderlies is arising from the fact that old persons face many health problems and request for the majority of healthcare services, and their population

is rapidly rising. Aliasgharpour and Eybpoosh (10) reported that people over 65 will account for 10% of the population by 2020.

According to Beck's cognitive theory (2004), sleep deprivation and poor quality of sleep are correlated with depression and the intensity of mental illness symptoms. Quality of social interactions and facilities provided are among factors affecting the psychophysiological health of elderlies, in general, and their quality of sleeping, in particular.

According to the vulnerability-facilities theory, social interactions are among social variables with a meaningful effect on the psychological health of elderlies. Social isolation means the sense of defeat and distraction from others when considering all aspects of social life. Social isolation is an attitudinal factor, and thereby considered as a personal characteristic. It includes sensitive and instrumental isolation. Some consider social isolation as a social reality and some others consider that it has arisen from personal perception.

Social isolation is a complicated structure composed of at least three components: isolation structure, isolation interactions, and isolation contacts. These elements are not necessarily bilateral. They affect each other in a common and two-way manner. For example, isolation structures result from the history of no supportive interactions. Potential interactions occur in the context of no supportive communications with potentially adverse effects. People that expect others to be no supportive will develop more no supportive communications in new social contexts (11).

Kiessel (12) and Ganster and Victor (13) have reported that people who experience social isolation are not members of a social network, undergo more injuries from pressing events and experience more health problems such as poor quality of sleep. Ganster and Victor (13) showed that social support acts as a mediator and damper between life pressures and the psychological status of elderlies. Social isolation in elderlies sparks negative emotions associated with the sense of loneliness, which ultimately comes with unfavorable effects on the quality of sleep (14).

Considering the many psychological problems endangering elderlies and the poor social support of those living in senior homes, this study aims at evaluating two psychophysical health indicators in elderlies of the city of Bam (Kerman, Iran).

**METHODS**

This study was based on an applied, descriptive, and survey design conducted on 80 old persons living in retirement homes in Bam in 2017. The inclusion criteria included 1) having age over 60 years, 2) having no history of psychological disorders based on the medical files and personal statements, 3) no infected with acute disabling illnesses based on the medical files available, 4) admission to the retirement house of the city of Bam for at least six months, 5) round-the-clock presence in elderlies' home, 6) no addiction to smoking and alcoholic drinks, and 7) signing the consent form for attending the study. Data were gathered using the two questionnaires below:

1. University of California Los Angeles (UCLA) Loneliness Scale: This scale was developed by Russell and co-workers

in 1996. The questionnaire includes 20 questions on social isolation based on the four-point Likert scale. Items include never (score = 1), rarely (score = 2), occasionally (score = 3), and always (score = 4), and the scores ranges from 20 (least) and 80 (maximum) (Russell et al., 1996). In this study, scores of 20-39, 40-60, and 61-80 were considered respectively as low, moderate, and high social isolations. Bahiraei et al. (1999) reported the correlation coefficient of this questionnaire equal to 0.67 considering scores of depression and the sense of loneliness in students. Poorshahriari (15) reported that this score is highly correlated with other tests on social isolation, loneliness, social support, personality, mood, and other parameters, and reported the coefficient score of 0.68 according to the Maria Kovacs Children's Depression Inventory (CDI). The alpha Cronbach coefficient measured for the UCLA Loneliness Scale by Russell et al. (1995) varies from 0.89 to 0.94 for adults, students, and teachers. Naderi and Haghshenas (2009) reported the reliability coefficient values of 0.78 for this scale by calculating the alpha Cronbach coefficient.

2. Pittsburgh Sleep Quality Index (PSQI): This scale is a well-established tool worldwide for assessing the quality of sleep in the past month. PSQI was first developed by Daniel J. Buysse and collaborators in 1989. It involves 18 items and 7 sub-items covering the quality of sleep, including the mental quality of sleep, delayed sleep-wake phase disorder (DSWPD), duration of sleeping, useful sleep, sleep disorders, using hypnotic drugs, and daily functional disorders. The seven sub-items show normal status, and mild, moderate, and severe conditions. The total score is obtained from summing seven scores, which range from zero to 21 (Rezaei, 2014). In this study, sleep quality scores of 0-7, 8-14, and 15-21 indicated the good, moderate, and poor quality of sleep., respectively. Rezaei (2014) reported a reliability score of 86.5% for this scale. Buysse and collaborators (1989) reported internal consistency of 83% for this questionnaire by measuring the alpha Cronbach coefficient. Heydari et al. reported the alpha Cronbach coefficient of 0.89 for this scale.

In this study, the letter of recommendation was obtained from Khorasgan Islamic Azad University and submitted to the head of the Sepehr Senior House. Besides verbal approval, participants were asked to sign written consent forms. They were interviewed and questionnaires were completed by the researcher. Data were analyzed in IBM SPSS Statistics in terms of parameters frequency, percentage, and mean.

**Table 1.** The frequency of parameters under concern in terms of social isolation and their mean scores

Social isolation	No.	Percentage	Mean
Low (20-39)	12	15	15.7±48.06
Moderate (40-60)	33	41.3	
High (61-80)	35	43.8	
Total	80	100	



**RESULTS**

According to (Table 1), social isolation is most frequently observed in 43.8% of participants with a high rate of social isolation. The mean score of social isolation was 48.06±15.7.

According to (Table 2), the poor quality of sleep is most frequently observed in 38.8% of participants with a low quality of sleep. The mean score of quality of sleep was 16.76±8.65.

**Table 2.** The frequency of parameters under concern in terms of quality of sleep and their mean scores

Quality of sleep	No.	Percentage	Mean
Low (0-7)	31	38.8	8.65±76.16
Moderate (8-14)	26	32.5	
High (15-21)	23	28.8	
Total	80	100	

**DISCUSSION**

The results of determining the degree of social isolation of the elderly living in a nursing home in Bam showed that the highest frequency in the study units (43.8) belonged to a group that has high social isolation. The results of measuring the social isolation of the elderly participating in the present study using the Social Isolation Scale (UCLA) showed that 85% of the elderly members of the study report their social isolation as average and above. These results are consistent with the findings of Niswade et al. (16) which emphasized the effects of living in a nursing home on social isolation. This finding is also consistent with the statements of Christensen and Moran (17) that social isolation is higher than normal in the elderly living in nursing homes.

As it was observed, the mean and standard deviation of the social isolation score of the research sample members were equal to 48.06 and 15.7, respectively. This rate is higher than the global average score of the UCLA Social Isolation Questionnaire and indicates higher social isolation in the elderly members of the research sample.

The results of the study of social isolation of the sample members showed a relatively high social isolation of the sample members. In the field of social isolation of the elderly, the results of various studies have shown that in Eastern countries, support from members of the social network and those around the elderly has more beneficial effects than Western individualistic culture; because in Eastern culture, old age brings more support and care from children and others around them. Research literature also suggests that the cultural context is very important in shaping the experience of living in a nursing home. In Iranian culture, where most families are large, due to the extensive role of family and relatives in the lives of individuals, the role of relatives in old age takes a deeper form (18).

Also, the results of determining the quality of sleep of the elderly living in a nursing home in Bam showed that more than 70% of the elderly members of the research sample reported their sleep quality as low and average. This finding is consistent with a study by

Sharp and Koran (2006) in which the quality of sleep in the elderly living in a nursing home is reported to be poorer than other members of the community. As it was observed, the mean and standard deviation of good quality of sample members were 16.76 and 8.65, respectively. This rate is higher than the global average score of the Pittsburgh Sleep Quality Questionnaire and indicates more sleep problems in the elderly members of the research sample.

These results are consistent with the findings of Bond and Husar (19) in a study of the elderly living in a nursing home. The results of their research showed that the elderly living in nursing homes are significantly different from non-elderly people in terms of sleep quality concerns.

**CONCLUSION**

The results of evaluating the degree of social isolation among the elderly in a Bam nursing home revealed that the study units with the highest frequency belonged to a group with a high level of social isolation. The Social Isolation Scale (UCLA) was used to assess the social isolation of the elderly participants in this study, and the results showed that 85 percent of the elderly participants rated their social isolation as average or higher.

**CONFLICT OF INTERESTS**

The authors of the present study declare that there is no Conflict of interest

**ABBREVIATIONS**

PSQI; Pittsburgh Sleep Quality Index, UCLA; University of California Los Angeles, CDI; Children’s Depression Inventory, DSWPD; delayed sleep-wake phase disorder.

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