Social Isolation and Depression among Elderly at Abu Hammad City

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Abstract

Background: Social isolation and depression in older adults are major public health problems and associated with increased morbidity and mortality. **Aim of the study:** Was to assess social isolation and depression among elderly at Abu Hammad City. **Subjects and Methods; Design:** A descriptive design was used. **Setting:** This study was conducted at a village called "Bahtet" at Abu Hammad City, Sharkia Governorate. **Subjects:** A purposive sample consisted of 125 elderly. **Tools of data collection:** Three tools were used for data collection; **Tool I:** A structured interview questionnaire composed of two parts; demographic characteristics, and medical history of the studied sample, **Tool II:** Lubben Social Network Scale-Revised and **Tool III:** The Geriatric Depression Scale: short form. **Results:** 53.6% of the elderly had moderate level of social network, and 17.6% had high level. Moreover, 28.8% of them had low level. 48% of the elderly had mild depression; additionally 4.4% and 5.6% of them had moderate and severe depression respectively. **Conclusion:** more than half of the elderly had moderate level of social network. Moreover, slightly less than half of the elderly had mild depression. **Recommendation:** Replicate the study on a larger group; selected from different geographical areas in Egypt to obtain more generalized findings in relation to current study.

Key words: Elderly, Depression, and Social Isolation.

Introduction:

Aging is a physiological process that does not directly lead to disease but causes the occurrence of many physical and mental diseases due to the passage of time and the influence of environmental factors, reduced social relations, the loss of a spouse and family members, and unhealthy lifestyle [(1)].

Social isolation is defined as the state in which an individual lacks a sense of social belonging, engagement with others, sufficient social contacts and is deficient in fulfilling relationships. Two distinct types of social isolation have been defined: objective social isolation and subjective social isolation. Objective social isolation indicates an individual having a limited social network or infrequent contact with other people and subjective social isolation indicates an individual having a perceived mismatch of an individual's actual and desired social relationships, leading to feeling loneliness [(2)].

Depression is a common psychiatric condition usually characterized by sadness, lack of interest, guilt or low self-esteem, disturbed sleep or food, exhaustion, and poor attention for at least two weeks. Depression is the most frequent mental health disorder in the world, and it is a serious public health concern because it affects so many people including older adults. Depression in older adults often goes untreated because people typically think that it is a normal component of the aging process and a natural reaction to chronic diseases, loss, and social conversion. Depressive disorders afflict 10 to 20% of older individuals globally, affecting over 300 million people in 2015 as reported by WHO [(3)].

The gerontological nurse's role involved assisting, helping, and caring for elderly with functional disabilities and their families, so that they can have access to education, information, and social resources that will help them to maintain satisfying lives. Gerontological Nurses (GN) who works with the depressed, socially isolated, or malnourished elderly must use their assessment skills to measure the effect of disabilities on their patient's health and care [(4)].

Significance of the study:

Social isolation can play an important role in decreased food intake, and it is detrimental to health. Social isolation also has been linked to increased mortality. The elderly are prone to suffer consequences of social isolation, loneliness, depression, and financial worries [(5)]. Depression constitutes a major burden of diseases in the elderly, and it has negative impacts on elderly's function, nutrition, quality of life, physical illness, social state, and result in malnutrition which lead to increased morbidity and mortality, so there is strong association between depression and nutrition in geriatric population [(6)]; therefore, the aim of the study was to assess social isolation and depression among elderly at Abu Hammad City.

Research Questions:

- What is the level of social isolation among elderly at Abu Hammad City?
- What is the level of depression among elderly at Abu Hammad City?

Aim of the study:

The study was conducted to assess social isolation and depression among elderly at Abu Hammad City.

Subjects and Method:

Design:

A descriptive research design was used to conduct the study.

Setting:

The study was conducted at a village called "Bahtet"; that was randomly selected from 34 villages of "Abu Hammad center" which located in Sharqia governorate, Egypt. Using a multistage cluster technique to choose the sitting, according to the eligibility criteria, as followed:

- **First stage (selection of district):** The study was conducted in Sharkia Governorate, which consists of 23 districts. The researcher used simple random sampling technique to pick up district, it was Abu Hammad district, (consists of 34 main villages).
- **Second stage (selection of village):** The researcher picked up one village from the 34 main villages, (randomly called "Bahtet").
- **Third stage (selection of participants):** The selected village was divided into several clusters. From each cluster five streets were selected randomly and finally building from these streets included (door to another door) to yield the desired sample.

Subjects:

Purposive sample of 125 elderly was recruited to participate in this study according to the following criteria:

- **Inclusion criteria:**
  1. Aged 60 years or more.
  2. Both sexes.
  3. Accept to participate in the study (Oral consent).
- **Exclusion criteria:**
  1. Elderly who are not able to communicate or having hearing problems.
  2. Elderly having any mental or psychological disorders (except symptoms of depression and social isolation which diagnosed according to the scales in this research)
  3. Elderly having malignant diseases or last stage diseases.

Tools for data collection:

Tool (I): Structure interview questionnaire: A structured interview questionnaire format was developed by the investigator after reviewing the lasted related literatures to collect the necessary data for achieving the study objectives, it included two parts:

- **Part (1): Demographic characteristics:** It was composed of 12 items such as age, level of education, marital status, previous occupation, and income.
- **Part (2): Medical history of the studied sample:** It was composed of five items to investigate the present and past medical history of the studied elderly such as, do you suffer from any chronic health problems, if "Yes" what is this problem, do you take your medication regularly, and do you take any drugs without the doctor's order.

Tool II: Lubben Social Network Scale-Revised (LSNS-R): The LSNS-revised (LSNS-R), a revised version with 12 items, it was developed by **Lubben** [7], and translated into Arabic by the researcher. The LSNS-revised (LSNS-R) distinguished between the social network of family and that of friends was developed. The LSNS-R is composed of six questions regarding family (relatives) and the same six questions regarding friends. Each item can be graded from 0 to 5 points, and the degree of support of the social network can be graded from 0 to 60 points. Higher LSNS-R scores signify a greater level of support from the social network.

Scoring system:

Each item was evaluated regarding five Likert scale. Each item can be graded from 0 to 5 points, and the degree of support of the social network can be graded from 0 to 60 points. Higher LSNS-R scores signify a greater level of support from the social network. These scores were summed up and converted into a percentage score. It was classified into three categories:

- High for ≥ 75%
- Moderate for ≥ 60 to <75
- Low for < 60

Tool III: The Geriatric Depression Scale: short form (GDS: SF): This scale was developed by **Sheikh and Yesavage** [8]; as a basic screening measure for depression in older adults, and translated into Arabic by the researcher. The GDS: SF consists of 15 questions requiring "yes" or "no" answers.

Scoring system:

Of the 15 items, 10 indicate the presence of depression when answered positively, while the rest (question numbers 1, 5, 7, 11, 13) indicate depression when answered negatively. A score higher than five suggests depression. Scores exceeding ten are almost always depression.

Field work:

The researcher met with the elderly, introduced herself and explained to them the aim of the study to obtain their consent to participate in the study and gain their cooperation and confidence. The elderly were interviewed individually to collect the baseline data using all study tools. This interview took about 25 to 30 minutes.

Content validity and reliability:

The validity of tools had done through five expertise professors of Community Health Nursing Specialties, from different Faculties of Nursing. The tools were modified based on their guidance and views. Content reliability was as follow: Lubben Social Network Scale-Revised (LSNS-R) at Cronbach alpha 0.891. The Geriatric Depression Scale: Short form (GDS: SF) at Cronbach alpha 0.857.

Administrative and Ethical considerations:

An official permission was obtained using proper channels of communication. This was done through letters addressed from the Dean of the Faculty of Nursing, Zagazig University; explaining the aim and procedures of the study and asking for cooperation to the authored person (who was the village mayor) at the village Bahtet, Sharqia governorate, Egypt. The title and objectives of the study had been explained to them to obtain their conducting of the study to facilitate data collection. Informed oral consent was obtained from the elderly after explaining the aim of the study and assuring them about the confidentiality of the information. Anonymity, confidentiality and privacy of the elderly were assured. Voluntary participation and right to refuse to participate in the study was emphasized to the subjects.

Statistical analysis:

Data entry and statistical analysis were done using SPSS 20.0 statistical software package.

Results:

Table (1): Shows that, 46.4% of the studied elderly their age ranged between 60-<70 years, the mean of age was 76.68±6.34 year. As regard to gender 60.8% of the studied elderly were male. Regarding the previous work before retirement, 44% of the studied elderly were employee. Regarding current working, 85.6% of the elderly were not working. Also, 57.6% of the studied elderly their crowding index was 1-<2. Moreover, 44% of them their source of income was from pension.

Figure (1): Demonstrates that, 53.6% of the elderly had moderate level of social network. Also, 17.6% of had high level. Moreover, 28.8% of them had low level.

Table (2): Illustrates that, 81.6% of the studied elderly were suffering from chronic diseases, 70.6% of them suffered from hypertension and 90.2% of them were taking drug treatment for these diseases regularly. 78.3% of them take 3-5 drugs at the present time. Also, 69.6% of the studied elderly take medicines without consulting a doctor.

Table (3): Illustrates that, 48% of the elderly had mild depression. Also, 14.4% & 5.6% of them had moderate and severe depression respectively. While 32% of them were normal.

Table (4): Presents that there were significantly higher frequencies between educational level, and total social network on total geriatric depression of the studied elderly at (p =<0.01). The frequency of total geriatric depression was not predicted by age, gender, and crowding index at (p => 0.05).

Table (5): Reveals that there were significantly higher frequencies between, current working, Living condition, and total geriatric depression on total social network of the studied elderly at (p =<0.01). The frequency of total social network was not predicted by age, gender, educational level and crowding index at (p => 0.05).

Discussion:

Concerning the demographic characteristics of the studied elderly; the current results found that the mean of age of the elderly was 76.68±6.34 year, also, more than half of the studied elderly were males, and the majority of the elderly were not working.

Those results are the same with the results of **Figueiredo et al. [(9)]**, as they found that the majority (89.4%) of their Brazilian elderly were retired and didn't work. Also, those results agreed with **Domènech-Abella et al. [(10)]** in Ireland as they shared with their results that more than half (52.4%) of the studied elderly were males.

On other hand **Alhalaseh et al. [(11)]**, in their Japanese study reported more than half (50.8%) of their

subjects were females. Additionally, the present results disagreed with **Alam et al.** [12], in their study which done in Bangladesh as they revealed that the average age of the study population was 72.1 ± 7.0 years, and the number of female and male participants was equal.

Related to medical history of the studied elderly; illustrated that, most of the studied elderly were suffering from chronic diseases with most of them suffered from hypertension, and the majority of them were taking drug treatment for these diseases regularly. From the researcher's view this could be due to their aging; as with older age all physiological, psychological, immunity system declines so chronic diseases increased.

This current result is in similar with **AbdElaziz et al.** [13], in their Egyptian study at Assuit city, in which they revealed the hypertension among most (74.3%) of their studied subjects as concerning their types of chronic diseases.

Depression is one of the most common illnesses in the elderly population. It is associated with increased risk of morbidity, decreased physical, cognitive and social functioning and greater self-neglect. Thus, depression among elderly population is likely to be a major cause of disease burden in the future [14].

Concerning the total levels of depression among the studied elderly; the current study illustrated that, slightly less than half of the studied elderly had mild depression. Also, the minority them had severe depression. From the researcher's view, those depressed symptoms could be explained due to the changes in their lives and also the elderly in Egypt have suffered as a result of rising costs of living especially after retirement, and shifting family priorities, and in some times old age connected with helplessness, dependency, widowhood, poor health, and lack of self-esteem which are risk factors for mental morbidity, and affect the presence of depressed symptoms.

This result is similar to the results of **Noguchi et al.** [15], in their cross-national longitudinal study in England and Japan; in which they found more than half (59.7%) of their subjects had mild symptoms of depression. Also, this current results agreed with the Egyptian results of a study done by **Elsayed et al.** [16], in which they revealed about half (50.1%) of their studied elderly subjects having mild level of depression.

On other hand, this present result not similar to the results showed by **Al zorkany et al.** [17], in their Egyptian study at Gharbia Governorate, Egypt about "Screening for depression among geriatrics in the rural community"; they 16.5% were suffering from mild depressive symptoms, 47% were suffering from moderate depressive symptoms, and 25% were suffering from severe depressive symptoms.

Regarding Multiple Linear regression model, the present study presented that there was significantly higher frequencies between Educational level, and total social network on total geriatric depression of the studied elderly at ($p = <0.01$). The frequency of total geriatric depression was not predicted by age, gender, and crowding index at ($p= > 0.05$). Those results are supported by **Al zorkany et al.** [17], as they revealed that age group was not a statistically significant factor (P=0.165) with 88.6%, 86.4%, and 93.1% of 60-64, 69-65 and over 70 years old of age groups, respectively, suffering from depression.

Social isolation can be defined as the objective measure of physical absence of social interactions, relationships and support from family, friends or even society. The effects of social isolation and loneliness on mental health contribute to the overall psychological impact on an individual. The common psychological impact of older adults during social isolation

includes anxiety, boredom, depression and suicide [4].

Concerning distribution of the studied elderly according to their total social network score; the current study demonstrated that, more than half of the elderly had moderate level of social network. Moreover, less than one third of them had low level of social network. From the researcher's view; this could be due to the changes done because of aging as during later life, social networks are unstable, often with severe disruptive changes such as bereavement, and are more likely to become smaller as compared to middle life. These disruptions are mainly caused by situational and personal characteristics such as retirement, ill-health, and loss of a spouse, residential changes and other life events primarily associated with ageing.

Those results are similar to **Figueiredo et al.** [9] as they found among their Brazilian elderly that more than half (57.4%) of them had moderate level of social network. On other hand, the present results aren't similar with **Wu and Sheng** [18] in their pathway analysis in China; as they revealed the most (74.2%) of their elderly had low level of social network.

Conclusion:

Based on the results of the present study and answer of research question; the study can be concluded that, more than half of the elderly had moderate level of social network, and slightly less than half of the elderly had mild depression.

Recommendations:

Based on the study findings, the following recommendations can be deduced:

- Replicate the study on a larger group; selected from different geographical areas in Egypt to obtain more generalized findings in relation to current study.
- Developing and conducting educational programs and psychological counselling for elderly with depression in the study setting to prevent malnutrition.
- Developing and conducting educational programs for elderly with social isolation in the study setting to prevent depression and social isolation
- Paying more attention regarding psychological needs of the elderly should be provided to improve the health of elderly.

Acknowledgement:

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Table (1): Number and percentage distribution of the studied elderly according to their socio-demographic characteristics (n= 125)

Items	N	%
Age (year)		
60-<70	58	46.4
70-<80	46	36.8
≥80	21	16.8
Mean SD	**76.68±6.34**	
Gender		
Male	76	60.8
Female	49	39.2
Working before retirement		
Worker	15	12
Farmer	22	17.6
Free business	10	8
Employee	55	44
Housewife	23	18.4
Current occupation		
Work	18	14.4
Not work	107	85.6
Crowding index		
<1	22	17.6
1-<2	72	57.6
≥ 2	31	24.8
Source of income		
Pension	55	44
Still working	18	14.4
Property income	24	19.2
Assistance from relatives	8	6.4
Social assistance	20	16

Table (2): Number and percentage distribution of the studied elderly according to their medical history (n=125)

Items	N	%
Suffering from chronic diseases?		
Yes	102	81.6
No	23	18.4
Types of chronic diseases do you have? (n=102)		
Hypertension	72	70.6
Diabetes mellitus	48	47.1
Heart disease	27	26.5
Respiratory diseases.	16	15.7
Kidney Diseases	5	4.9
Diseases of the digestive system	42	41.2
Neuropsychiatric diseases	14	13.7
Arthritis	4	3.9
Anemia	9	8.8
Do you take drug treatment for these diseases regularly? (n=102)		
Yes	92	90.2
No	10	9.8
If yes, How many medications are you taking daily regularly at the present time? (n=92)		
<3	11	12
3-5	72	78.3
>5	9	9.8
Mean SD	**3.92 ± 0.84**	
Do you take medicines without consulting a doctor?		
Yes	38	30.4
No	87	69.6

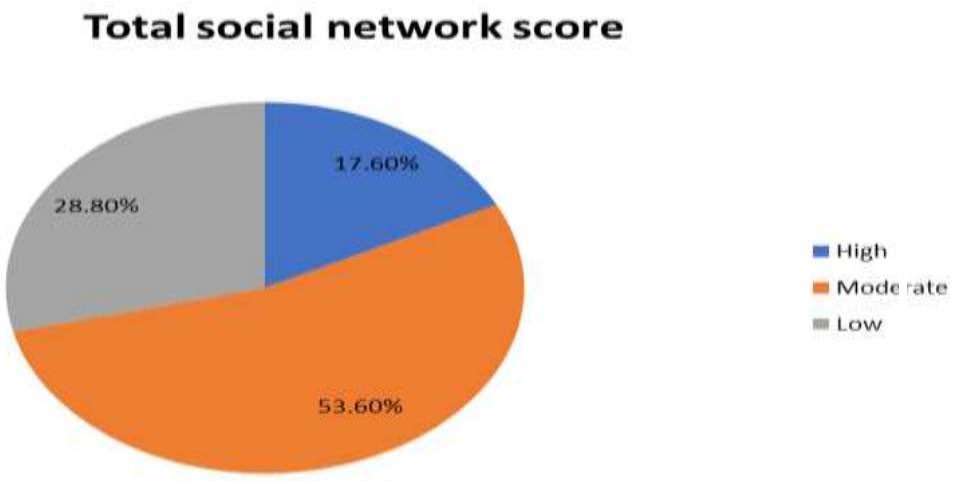

Figure (1): Percentage distribution of the studied elderly according to their total social network score (n=125)

Table (3): Number and percentage distribution of the studied elderly according to total geriatric depression scale short form (n=125)

Total geriatric depression scale short form	N	%
Normal	40	32
Mild depression	60	48
Moderate depression	18	14.4
Severe depression	7	5.6

Table (4): Multiple Linear regression model for geriatric depression

	Unstandardized Coefficients	standardized Coefficients	T	P. value
	B	B		
Age	.127	.131	1.756	.101
Gender	.110	.117	1.128	.124
Marital status	.161	.176	2.451	.016*
Educational level	.405	.416	4.887	.001**
Current working	.242	.257	3.170	.013*
Monthly income	.217	.219	3.110	.015*
Living condition	.176	.184	2.174	.02*
Crowding index	.138	.141	1.601	.103
Total social network	.854	.871	7.524	.000**
ANOVA				
Model	**Df.**	**F**	**P. value**	
Regression	10	11.10	.000**	

a. Dependent Variable: **geriatric depression**

b. Predictors: (constant) **Age, Gender, Marital status, educational level, Current working, Monthly income, Living condition, Crowding index, and Total social network.**

Table (5): Multiple Linear regression model for social network

	Unstandardized Coefficients	standardized Coefficients	T	P. value
	B	**B**		
Age	.098	.109	1.754	0.18
Gender	.138	.132	1.124	.116
Marital status	.193	.202	2.791	.01*
Educational level	.135	.116	1.083	.182
Current working	.399	.409	4.730	.000**
Monthly income	.160	.179	2.607	.01*
Living condition	.406	.417	4.194	.000**
Crowding index	.129	.134	1.299	.148
Total geriatric depression	.854	.871	7.524	.000**
ANOVA				
Model	**Df.**	**F**	**P. value**	
Regression	10	11.97	.000**	

a. Dependent Variable: **social network**
b. Predictors: (constant) **Age, Gender, Marital status, educational level, Current working, Monthly income, Living condition, Crowding index, and Total geriatric depression.**

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