

Loneliness among Elderly Resident and Non Residents at the Eldery Care Homes in Port Said City: Comparative Study

NAGLAA IBRAHIM MOHAMED GIDA, D.N.Sc.*; REDA IBRAHIM EL-MOWAFY, D.N.Sc.*;
NAHED ABDELAZEEM ABDELSLAM, D.N.Sc.* and MAI MAMDOUH MOHAMED BADRAN, M.Sc.**

The Department of Family and Community Health Nursing, Faculty of Nursing, Port-Said* and Mansoura** Universities, Egypt

Abstract

Background: Loneliness is a problem for a large portion of elderly people. Many factors affect the elderly; separation or dying of spouse, decrease the level of education or economic status result in loneliness.

Aim of Study: Explore the feeling of loneliness among the elderly residents and non- residents at the eldry care homes in Port Said City.

Research Design: A comparative descriptive design was used to conduct this study.

Sample size: The subject of the study compromised all the geriatric people residing in the two governmental eldry care homes in Port Said and Port Fouad (92 elders) and 144 elderly people from the Elderly Health Center in Al-Manakh District in Port Said City.

Material and Methods: The data were collected using a personal structured interview questionnaire, Barthel index scale, University of California, Los Angeles loneliness scale (ULCA) and the geriatric depression scale (GDS).

Results: According to the elderly people living at their homes; (57.6%, 29.2% & 13.2%) of them had low, mild & high feeling of loneliness respectively while, (19.6%, 45.7% & 34.8%) of residents at eldry care homes had (low, mild and high) loneliness respectively. The difference was statistically significant.

Conclusion: The study revealed that residents in the nursing homes significantly had high feeling of loneliness more than elderly people living at their homes. The most important factors that significantly affected the feeling of loneliness were marital status, income, health status and depression.

Recommendation: Encouraging elderly people to participate in social events and increase their social contacts by visiting their family members or friends.

Key Words: Elderly – Eldry care homes – Loneliness – Non residents – Residents.

Correspondence to: Dr. Naglaa Ibrahim Mohamed Gida, The Department of Family and Community Health Nursing, Faculty of Nursing, Port-Said University, Egypt

Introduction

LONELINESS is undesirable feeling due to a perceived difference between the desired and the achieved level of relationships. Loneliness is a state with feelings of distress, depression and isolation due to a wide emptiness in a one's social and emotional life [1,2].

Old age is a biological fact that has its own qualities, mostly exceed people's control. The old age is divided into three groups; young-old (aged 60-74), middle old (ages 75-84), and oldest-old (above age 85). The population aging is often seen as a success for public health policies and for socioeconomic advancement, on another hand, it becomes a challenge to the society to cope with the ability and health status of old people as well as to their community participation and security. Physical and mental capacities were not only affected by aging but also the change in the elders' participation in the community and the decrease of relationships with others as friends, family members and relatives which resulted in loneliness [3,4,5].

The rate of the elderly people in the world over 60 years between 2015 and 2050 will increase twice from 12% to 22%. By 2050, the world's people aged 60 years and above are predicted to be 2 billion, arise from 900 million in 2015. In 2018, 125 million people are aged 80 years or older. Up to 50% of those aged over 60 years are at risk of loneliness and about one third of old people will complain some degree of loneliness at old age [6,7].

Loneliness is a problem for a large portion of the people. Many factors affect the elderly; separation or dying of spouse, decrease level of educa-

tion or economic status, having chronic illness, poor health, lack of visits by relatives or friends, discontented with the place of living. These factors seriously affect the activities of daily living and social relation leading to loneliness. The dying of a spouse in elderly women is the most disturbing life event they cannot resist [8,9].

There is various physical and mental health problems associated with the feeling of loneliness experienced by the elderly. The most known complications linked to the loneliness are depression, cognitive decline and early death. Chronic loneliness may challenges the individual's feeling of being well and increase the risk of suicide [10]. Additionally, loneliness is accompanied with hypertension, disability, cardiovascular disease, cognitive illness and other bad health outcomes that result in increasing the need for hospitalization and leading to increasing health care utilization [11].

The feeling of loneliness among the elderly living in nursing homes was common than among those who living with their families. The decrease of the feeling of loneliness among the elderly residents at nursing homes associates with well mental state. Also, the decrease of the feeling of loneliness among the elderly living in their homes associates with high mental state and increase the ability to endure difficult conditions [12,13].

Nurses have an important role in loneliness intervention. Firstly, they identify the elderly people who are at risk for loneliness and understand the factors that lead to loneliness in various setting. Secondly, nurses develop interventions to alleviate the loneliness and treat both emotional and social loneliness. Finally, they evaluate the effect of these interventions. Also, it was proved that nurses can alleviate the feeling of loneliness among the elderly by engage them in daily activities and social events [14,15,16].

Significance of the study:

Several researchers have analyzed the association of loneliness with the old age. The prevalence of feeling of loneliness was 9.9% in South Africa [17]. In Assuit at Egypt, about 72% of elderly people had severe loneliness, while 26% of them had moderate loneliness [18].

Loneliness is one of the main factors leading to depression, and an important cause of suicide and suicide attempts. Loneliness also can stem from bad experiences as living alone, missing an intimate attachment and changing residence to a

nursing home. Although the feeling of loneliness is considered an obvious and growing problem among the elderly people, there weren't any previous studies about loneliness accomplished in Port Said city. So, we decide to conduct this study to assess feeling loneliness among the elderly residents and non residents at the eldry care homes in Port Said City.

Aim of study:

Explore the feeling of loneliness among the elderly residents and non-residents at the eldry care homes in Port Said City.

Objectives of the study:

- Identify the factors affecting loneliness among the elderly residents and non-residents at the eldry care homes in Port Said City.
- Compare the levels of feeling loneliness between the elderly residents and non-residents at the eldry care homes in Port Said City.

Subjects and Methods

Technical design:

The technical design for this study includes the research design, setting, subjects, and tools of data collection.

Research design:

A descriptive study design was used to conduct this study. This cross-sectional analytical study.

Study setting:

This study was carried out at governmental nursing homes in Port Said City. There were two homes namely; Mabratat Muslims for elderly in Port Said City -eldry care home in Port Foad and one outpatient clinic namely; Elderly Health Center in Al-Manakh District in Port Said City affiliated to ministry of health because this was the only outpatient clinic for elderly.

Study subjects:

All the geriatric people residing in the two governmental nursing homes in Port Said and Port Fouad (92 elders) and The sample size of the elderlies who attending outpatient Elderly Health Center in Al-Manakh District in Port Said City and living at their homes calculated by using equation of Charan and Biswas [19].

$$\text{Sample size} = \frac{Z_{1-\alpha/2} P_2 (1-P)}{D^2}$$

Z_{1-a/2}: Percentile of standard normal distribution by confidence level=1.96

P: Expected proportion in population-based on previous studies' prevalence of loneliness in elderly =9.9 according to Phaswana, et al. [17].

D: Absolute error or precision (5%)

$$\begin{aligned} \text{Sample size} &= \frac{1.9622 \times 0.099 \times (1-0.099)}{(0.05)^2} \\ &= \frac{3.8915 \times 0.099 \times 0.901}{0.0025} \\ &= \frac{0.3426668784}{0.0025} \\ &= 137 \end{aligned}$$

The calculated sample size would be 137 elderly due to the expected non participatory rate (5%) the final sample size will be (144) old person.

Total number sample:

- Residents at nursing homes = 92 elderly.
- Non-residents = 144 elderly.
- (Residents and non-residents) = 236 elderly.

Exclusion criteria:

- Under 60 years old.
- Elders refuse participation in the study.
- Elders with mental illness.

Tools for data collection: Four tools were used in data collection:

Tool (I): *Eldely structured interview questionnair:*

This tool was adopted from Ahmed [33] in the form of simple Arabic language. It consists of:

- 1- Personal characteristics of the elderly people such as age, sex, marital status, level of education, occupation before retirement, income and living conditions.
- 2- Health profile of elderly such as medical health history, falling, elders' perception about their health, hearing, vision and using aids.
- 3- Physical status as hearing, vision and using aids.
- 4- Social and entertainment activities: Having someone to talk with, hobbies and interests, rate of other's visits to the elderly, relation with persons visiting him.
- 5- Geriatric homes: Date and decision of admission, acceptance of geriatric home, duration of stay, satisfaction of elderly home, feeling now and at time of admission to the geriatric home.

Tool II: *Barthel index scale:*

Barthel Index scale was developed by Mahoney & Barthel [20] in English Language. This scale was translated into Arabic language [21], validated and

tested for its reliability ($r=0.971$). This scale used to measure performance in activities of daily living (ADL). It consist of 10 questions to assess the person's abilities in the ten items which addressed in the Barthel scale are presence of fecal incontinence, help needed with feeding, walking, dressing or bathing, **etc**).

Scoring system:

Each performance item is rated on this scale with a given number of points assigned to each level as following: 0 = Dependent, 1 = Needs help, 2 = Independent. Total scores range from 0 to 20, evaluated in the following manner: Scores of 0-7 indicate dependent, 8-12 indicate independent with assistance, 13-20 indicate independent.

Tool III: *UCLA Loneliness Scale:*

UCLA loneliness scale (version 3) was adopted from Russell in English language designed to measure one's subjective feelings of loneliness as well as feelings of social isolation [22]. It was translated into Arabic language by El Desoky [23], validated and tested for its reliability by Ebraheem, et al. [18]. This scale consists of 20-item such as talking to people, turning to them, feeling alone and close to anyone . Question numbers (1, 5, 6, 9, 10, 15, 16, 19, 20) indicated loneliness when answered negatively. Participants rated each item as the following: 0 ("I often feel this way"), S ("I sometimes feel this way"), R ("I rarely feel this way"), N ("I never feel this way").

Scoring system:

Scoring: 0=4, S=3, R=2, and N=1. Total score range from low feeling of loneliness=20 <40, mild feeling of loneliness=40 < 60, high feeling of loneliness =60 < 80.

Tool IV: *The Geriatric Depression Scale (GDS):*

A short form GDS was adopted from Sheikh, & Yesavage [24] in English language and translated into Arabic language, validated and tested for its reliability ($r=.70$) by El Hussein [25]. It consisting of 15 items, 10 indicated the presence of depression when answered positively such as (dropped many of your activities and interests, your situation is hopeless and....), while the rest (question numbers 1, 5, 7, 11, 13) indicated depression when answered negatively such as (feel happy most of the time, full of energy and).

Scoring system:

Participants rated each item as the following: Yes (1) & NO (0). Scores Of 0-4 are considered normal, 5-8 indicate mild depression; 9-11 indicate

moderate depression; and 12-15 indicate severe depression.

Pilot study:

A pilot study was carried out on 10% (24) of the total sample (9 from the eldry care homes and 15 from the outpatient geriatric clinic). It was conducted at the second week of May 2018 to the end of May 2018 to test clarity and feasibility Of the tool, also to estimate the proper time to complete the tool and find out any problems that might interfere with the data collection. The pilot study was included in the study because there was no need for modification of the tool.

Field of work:

- Before beginning collection of the data, agreements of directors of eldry care homes and outpatient center at Port Said City obtained, this step take one week at May 2018.
- The managers of each studied elderly home were informed about the purpose of the study, and then taken their oral consent to conduct the study.
- The study was conducted on 236 elderly using interview technique that was conducted on an individual basis by researcher.
- The data have been collected over a period of three months. The actual field of work carried out from beginning of June (2018) to the beginning of September (2018). Data collected from the two nursing homes at the first month. Data collected from the outpatient clinic at rest two months.
- Each elderly was individually interviewed using the previously mentioned study tool for 30-40 minutes according to suitable time.
- Collected data was from 5 to 7 elderly per day. Four day per week from 9 Am to 2 pm. Data were categorized by researcher checked and revised at October 2018 and then data were statistical analyzed at from the beginning of November 2018 to the beginning of mars 2019.
- The present study consumed about 9 months. One month of them for obtaining the official permission, pilot study and test clarity and feasibility of tool. The next three months consumed for data collection while, one month months for data entry and four months for statistical analysis.

Administrative design:

Before applying the study, an official letter was approved by the dean of the faculty of nursing, Port-Said University; then it was sent to the director

of each setting (Elderly Health Center in Al-Manakh District at Port Said City-Mabratah Muslims to care for the elderly in Port Said City-eldry care home in Port Fouad) to obtain permission to conduct the study. An agreement was taken from the director of each elderly place after explaining the aim of the study.

Ethical considerations:

Explain the aim of the study to the directors of elderly places to take their permission to do this study. Verbal consent was obtained from each participant to participate in the study after explaining the aim of this study and the importance of his/her participation, as well as stressing on confidentiality of the collected information. The process of data collection has not distributed the harmony of the work. All participants had the right to withdraw from the study at any time.

Statistical analysis:

After data were Collected, they were coded, and transferred into especially designed formats so as to be suitable for computer feeding following data entry checking and verification processes were carried out to avoid any errors during data entry process, frequency analysis, cross tabulation, and manual reversion were used to detect any errors. The SPSS (statistical package of social sciences), version 23 was utilized for both data statistical analysis and presentation measures were used:

Descriptive measures included: Count, percentage, standard deviation, minimum, and maximum.

The difference was considered significant at $p < 0.05$.

Results

Table (1): Reveals that age of the studied elderly ranged from 60 to up to 80 years, with mean age 71.44 (8.00) years among the elderly people living at their homes and 69.68 (5.43) years among residents at eldry care homes. Also it was observed from the result that 59.7% and 53.3% of them respectively were females. In addition, 43.7% and 70.7% of elderly people living at their homes and residents at eldry care homes respectively were widows. Furthermore, it was shown that 25.0% and 35.9% of elderly people living at their homes and residents at eldry care homes respectively were not read and write. Concerning the elderly people' occupation before retirement; the result showed that 46.5% and 37.0% of elderly people living at their homes and residents at eldry care homes respectively were housewives. In relation to the economic status; 44.4% and 72.8% of them respec-

tively had enough income. Also, it was revealed from the result that 50.7% and 68.5% of elderly people living at their homes and residents at eldry care homes respectively were depending on pen-

sion. Regarding to elderly people living at their homes; 27.2% of them was living with their husbands or wives, while 13.7% of them lived with their sons.

Table (1): Distribution of the studied elderly according to their personal characteristics.

Items	Elderly people at their homes 144		Residents at eldry care home 92		Significant test
	No.	%	No.	%	p-value
Age:					
60- <70	99	68.8	79	85.9	$\chi^2=10.685,$ $p 0.005^*$
70- <80	32	22.2	12	13.0	
80+	13	9.0	1	1.1	
Mean ± SD					71.44±8.00
Gender:					
Males	58	40.3	43	46.7	$\chi^2=0.957,$ $p 0.328$
Females	86	59.7	49	53.3	
Marital status:					
Single	1	0.7	9	8.7	$\chi^2=65.178,$ MEP 0.000 *
Married	73	50.7	2	3.4	
Widow	63	43.7	65	70.7	
Divorced	7	4.9	16	17.4	
Education:					
Not read and write	36	25.0	33	35.9	$\chi^2=23.585,$ MEP 0.000*
Read/write	28	19.4	29	31.5	
Primary	24	16.7	18	19.6	
Preparatory	27	18.8	10	10.9	
Secondary	14	10.0	2	2.2	
University	15	11.1	0	0.0	
Occupation before retirement:					
Employee	38	26.4	7	7.6	$\chi^2=6.617,$ $p 0.158$
House wife	67	46.5	34	37.0	
Technical workers	20	13.9	19	20.7	
Manual workers	7	4.9	23	25.0	
Trade business	12	8.3	9	9.7	
Income:					
Not enough	29	20.2	16	17.4	$\chi^2=22.877,$ $p 0.000^*$
Enough	64	44.4	67	72.8	
Enough & save	51	35.4	9	9.8	
#Source of income:					
Pension	73	50.7	63	68.5	$\chi^2=56.919,$ MEP 0.000*
Sons' help	45	31.2	4	4.3	
Relatives	2	1.4	2	2.2	
Social affairs	5	3.5	23	25.0	
Outside work	13	9.0	0	0.0	
Legacy	6	4.2	0	0.0	
Living condition:					
Alone	28	20.1			
Wife/husband	39	27.2			
Family	34	24.5			
Son	19	13.7			
Relatives	20	14.4			

*Significant at $p \leq 0.05$.

#Means more than one answer.

(χ^2) Chi square for comparison of categorical variables.

(MEP)Mont Carlo Exact Probability test if the expected value of any cell was less than 5.

Table (2): Demonstrates the length of stay in eldry care homes ranged from one year to up to 10 years with a mean was 6.07 ± 3.29 years; 43.5% of elders stayed at eldry care home since 7 to less than 10 years, while 5.4% of elderly people stayed form one year to less than 4 years. It also was detected from the table that 33.7% of the reasons for admission to the eldry care homes were no available house. Also, 41.3% of elderly people decided voluntarily to move there based on their own decision while 40.2% were their sons' choice. As regarded to the feeling at time of admission to the eldry care home, 55.4% and 30.4% of elderly people felt sadness and loneliness respectively, while 4.4% only of them felt happiness. Now; 67.4% and 52.2% of residents at eldry care homes were feeling loneliness and sadness respectively, while 18.4% of them now were feeling happiness. Additionally, 57.6% of elderly people were unsatisfied by their presence at geriatric homes. This was because of clashes between companions that represented 60.4%.

Table (3): Shows that 57.6% and 19.6% of elderly people living at their homes and residents at eldry care homes respectively had low level of loneliness. Also, 29.2% and 45.7% of those at their homes and at eldry care homes respectively had mild level of loneliness. 13.2% and 34.8% of them respectively had high level of loneliness and this difference was statistically significant.

Table (4): Displays that the differences were statistically significant between the feeling of loneliness and age, sex, marital status, level of education, working before retirement and income respectively at (p 0.000, p 0.025, p 0.000, p 0.000, p 0.045, p 0.000) among elderly people living at their homes. According to residents at eldry care homes, it was noticed that the differences were statistically significant between the feeling of loneliness and (sex and marital status) respectively at (p 0.001, p 0.030), while the relations between feeling of loneliness and age, education, working before retirement and income were statistically insignificant.

Table (5): Illustrates that 91.6% and 89.2% of them respectively were independent in performing activities of daily living. Also, 7.0% and 5.4% of elderly people living at their homes and residents at eldry care homes respectively were dependent on others in performing activities of daily living while 1.4% and 5.4% of them needed assistance in performing activities of daily living. The statistical difference was insignificant.

Table (6): Demonstrates that 54.2% and 19.6% of elderly people living at their homes and residents at eldry care homes respectively were feeling normal level of depression, while 30.6% and 40.2% of those at their homes and at eldry care homes respectively were feeling mild level of depression. It was also noticed that 9.6% and 25.0% of them respectively were feeling moderate level of depression. While 5.6% and 15.2% of them were feeling severe level of depression. And the difference was statistically significant.

Table (2): Distribution of the studied elderly according to their admission to nursing home.

Items	Elderly people at eldry care home (N=92)	
	No.	%
<i>Duration of stay (years):</i>		
1-	5	5.4
4-	39	42.4
7-	40	43.5
10+	8	8.7
Range: 1.0-15.0 years, Median = 6.0 years, Mean \pm SD = 6.07 ± 3.29		
<i>#Reason for admission to eldry care home:</i>		
- No available house	31	33.7
- Feeling lonely	24	26.1
- No one caring at home	22	23.9
- Son refused to stay with him	22	23.9
<i>Decision of admission to eldry care home:</i>		
- My choice	38	41.3
- Relatives' choice	12	13.1
- Sons' choice	37	40.2
- Friends' suggestions	5	5.4
<i>#Feeling at time of admission to eldry care home:</i>		
- Loneliness	28	30.4
- Sadness	51	55.4
- Misery	21	22.8
- Happiness	4	4.4
<i>#Feeling now:</i>		
- Loneliness	62	67.4
- Sadness	48	52.2
- Misery	15	16.2
- Happiness	19	18.2
<i>Satisfaction with your presence in the eldry care home:</i>		
- Yes	39	42.4
- No	53	57.6
<i>Un satisfied because: (53)</i>		
- Clashes between companions	32	60.4
- I want to stay in my house	15	28.3
- Miss-management for the geriatric home	4	7.5
- Lack of good service	2	3.8

#Means more than one answer.

Table (3): Distribution of the studied elderly according to the levels of loneliness.

Levels of loneliness	Elderly at their homes (144)		Residents at eldry care home (92)		Significant test <i>p</i> -value
	No.	%	No.	%	
Low level of loneliness	83	57.6	18	19.6	$\chi^2 = 35.407$, <i>p</i> 0.000
Mild level of loneliness	42	29.2	42	45.7	
High level of loneliness	19	13.2	32	34.8	

*Significant at $p \leq 0.05$.

(χ^2) Chi square for comparison of categorical variables.

Table (4): Relationship between feeling of loneliness and personal characteristics of the studied elderly.

Items	Feeling of loneliness			
	Elderly people at their home (144)		Residents at eldry care home (92)	
	No.	Mean \pm SD	No.	Mean \pm SD
Age:				
60-69	99	41.02 \pm 13.01	79	52.91 \pm 13.68
70-79	32	37.94 \pm 12.15	12	55.42 \pm 13.53
80+	13	51.62 \pm 18.40	1	49.00 \pm 00.00
Significant test	F=4.899, <i>p</i> 0.000*		F=0.224, <i>p</i> 0.800	
Gender:				
Males	58	37.17 \pm 12.01	43	46.22 \pm 12.17
Females	86	43.40 \pm 14.48	49	56.11 \pm 13.88
Significant test	<i>t</i> =2.270, <i>p</i> 0.025*		<i>t</i> =4.010, <i>p</i> 0.001*	
Marital status:				
Single	1	59.00 \pm 00.00	8	66.13 \pm 06.66
Married	73	34.29 \pm 07.82	3	51.55 \pm 13.39
Widow	63	48.65 \pm 14.53	65	58.00 \pm 16.52
Divorced	6	45.57 \pm 18.49	16	52.50 \pm 13.34
Significant test:	F=17.784, <i>p</i> 0.000*		F=3.109, <i>p</i> 0.030*	
Education:				
Illiterate	36	48.31 \pm 13.93	29	53.17 \pm 15.96
Read/write	28	46.86 \pm 16.22	18	53.61 \pm 10.49
Primary	24	37.33 \pm 10.07	33	52.70 \pm 13.02
Preparatory	27	37.19 \pm 10.85	10	54.50 \pm 14.14
Secondary	14	35.07 \pm 08.87	2	51.50 \pm 17.68
University	15	34.31 \pm 11.46	0	—
Significant test	F=5.218, <i>p</i> 0.000*		F=0.045, <i>p</i> 0.996	
Working before retirement:				
Employee	38	37.39 \pm 12.13	7	49.29 \pm 12.74
House wife	67	44.86 \pm 15.04	34	52.06 \pm 13.08
Technical Workers	20	37.15 \pm 10.94	19	52.79 \pm 14.09
Manual workers	7	39.14 \pm 10.96	23	57.43 \pm 12.05
Trade business	12	41.83 \pm 12.70	9	50.56 \pm 15.92
Significant test	F=2.501, <i>p</i> 0.045*		F=0.859, <i>p</i> 0.492	
Income:				
Not enough	29	45.55 \pm 14.74	16	55.56 \pm 12.52
Enough	64	43.53 \pm 14.54	67	53.41 \pm 14.10
Enough & save	51	36.06 \pm 10.33	9	47.33 \pm 09.46
Significant test	F=6.394, <i>p</i> 0.000*		F=1.106, <i>p</i> 0.335	

*Significant at $p \leq 0.05$.

(F) One way anova for comparison of continuous quantitative variables (more than two groups).

(*t*) Student's test for comparison of continuous quantitative variables (two groups).

Table (5): Distribution of the studied elderly according to the levels of ability to perform activities of daily-living (dependency level).

Levels of dependency	Elderly people at their homes (144)		Residents at eldry care home (92)		Significant test
	No.	%	No.	%	
Dependent	10	7.0	5	5.4	$\xi^2=3.313$, p 0.167
Independent with assistant	2	1.4	5	5.4	
Independent	132	91.6	82	89.2	

*Significant at $p < 0.05$.
 (ξ^2) Chi square for comparison of categorical variables.

Table (6): Distribution of the studied elderly according to the levels of depression.

Level of depression	Elderly people at their homes (144)		Residents at eldry care (92)		Significant test
	No.	%	No.	%	
Normal	78	54.2	18	19.6	$\xi^2=32.028$, p 0.000*
Mild depression	44	30.6	37	40.2	
Moderate depression	14	9.6	23	25.0	
Severe depression	8	5.6	14	15.2	

*Significant at $p < 0.05$.
 (ξ^2) Chi square for comparison of categorical variables.

Table (7): By using a linear regression test, it was illustrated that the most important factors that significantly affected the feeling of loneliness among the elderly people living at their homes were marital status, income, health status and

depression. Additionally, it was noticed that the most important factors that significantly affected the feeling of loneliness among the residents in eldry care homes were marital status, health status and depression.

Table (7): The most important factors affecting on the feeling of loneliness.

	Items	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Elderly people living at their homes	(Constant)	42.454	12.118	.067	3.503	.001
	Age Group	2.308	2.611	-.078-	.884	.379
	Gender	-2.099-	2.499	.044	-.840-	.403
	Marital status	5.802	1.401	.000	2.572-	.049*
	Education	-.002-	.929	-.131-	-.002-	.999
	Work before retirement	-1.245-	.890	.554	-1.400-	.165
	Income	8.084	1.551	.093	6.054	.007*
	Source of income	.723	.602	.162	1.201	.233
	Health Status	.984	1.235	-.120-	6.796	.028*
	Activities of daily living groups	-3.264-	2.189	.662	-1.491-	.140
	Depression	9.237	1.174		7.866	.000*
Residents at eldry care home	(Constant)	12.946	7.888		1.641	.103
	Age Group	1.139	1.015	.054	1.122	.264
	Gender	-1.395-	1.635	-.050-	-.853-	.395
	Marital status	3.519	1.299	.154	5.710	.008*
	Education	-.718-	.490	-.085-	-1.464-	.146
	Work before retirement	.102	.516	.010	.197	.844
	Income	-.121-	.736	-.008-	-.164-	.870
	Source of income	-.114-	.381	-.015-	-.299-	.765
	Health status	1.622	.723	.114	2.242	.027*
	Activities of daily living groups	-.271-	1.563	-.010-	-.173-	.863
	Depression	11.297	.858	.715	13.171	.000*

*Significant at $p < 0.05$.
 (t) Student's test for comparison of continuous quantitative variables (two groups).
 Linear regression was applied to found the priority of factors.

Discussion

Loneliness is upsetting feeling of social separation that occurs with the perception of inadequacy in the required figures or goodness of one's social connections. Loneliness is well reported as a prevailing problem among old people, because of life modifications and losses in aging [26,27].

The current study indicated that more than two-fifths of elderly people were entered into the elderly care homes by their own decision. It was not amazing as the decision was related to the causes of joining. More than one-third of residents in elderly care homes were admitted there because there were no available houses. Moreover, more than one-quarter of them felt lonely. The present results were congruent with a study carried out by Araújo, et al., in Brazil about "Differences between the profiles of institutionalized elderly people and those on waiting lists and who do not want to be institutionalized" which demonstrated that the decision of joining to the elderly care home was taken by the elderly own choice [28]. However, a study conducted by Matlabi, et al., in Tabriz, Iran about "Admission to a nursing home: Viewpoints of institutionalized older people about replacement" stated that the causes of joining to the elderly care homes were deterioration and difficulty to manage of their own homes [27]. Moreover, in a disagreement with our study Pilao, et al., mentioned that the cause of joining to the elderly care home was unemployment [29]. On the other hand, from the researcher's point of view, some elderly people expressed that the cause of admission to the elderly care home was that they did not want to be a burden on their sons and not to be a cause of marital problems to their children.

In the present study, more than half of the elderly people were unsatisfied with the presence at elderly care homes; less than two-thirds of them complain from the clashes with their companions. Furthermore, the results of the current study did not agree with the results of a study conducted by Sangar, et al., in Erbil city in Iraq about "old age satisfaction regarding elderly care home services" that revealed that most of elderly people were satisfied with elderly care homes [30]. This may be because of the clashes among the residents made them angry and unsatisfied from the elderly care homes although they thanked the elderly care home's services. These clashes were due to the loss of their privacy and security.

These findings in agreement with Nyqvist, et al., in northern Sweden and western Finland who

displayed that feeling of loneliness among residents at elderly care homes was higher than this among elderly people living at their homes because of the allocation of health and social resources were unequal [31]. This was in line with by Heidari, Ghodusi Borujeni, and Naseh in Iran who stated that degree of loneliness among the residents at elderly care homes was higher compared to those among elderly people living at their homes [32].

The results of this study reported that above half of the elderly people living at their homes were feeling low levels of loneliness compared to less than one-fifth of those residents at elderly care homes. Furthermore, more than one-quarter of elderly people living at their homes were feeling mild levels of loneliness compared to less than one-half of residents at elderly care homes. Moreover, more than one-tenth of elderly people living at their homes were feeling high level of loneliness compared to more than one-third of residents at elderly care homes. Furthermore, this study was consistent with a study carried out in Mansoura city by Ahmed which showed that elderly people living at their homes were feeling low level of loneliness more than those at elderly care homes. Additionally, the elderly people living at their homes were feeling mild and high levels of loneliness less than the residents at elderly care homes [33].

Also, in agreement to study done at geriatric homes in Malaysia by Aung, et al., showed that three quarters of residents at elderly care homes were feeling high levels of loneliness while, there weren't mild feeling of loneliness among those residents at elderly care homes [34].

The current study illustrated that feeling of loneliness and age significantly correlated among elderly people living at their homes, while there was insignificant relation between those among residents at elderly care homes. Additionally, this result was in a line with the result of a study conducted in Canada by Wu, and Penning regarding "Immigration and loneliness in later life" which revealed that loneliness and age significantly correlated [35]. Other findings of a study carried out in Malaysia by Aung, et al. reported that there was insignificant relation between loneliness and aging [33].

In this study, females were significantly more affected by the feeling of loneliness than males among both elderly people living at their homes and those residents at elderly care homes. This was broadly consistent with a study conducted by Teh,

et al., in Malaysia about "Family support and loneliness among older persons" which demonstrated that old women were more vulnerable to feel loneliness than old men [36]. On the other hand, the present study was in contrast with other study accomplished by Prieto-Flores, et al., in Spain about "Family support and loneliness among older persons in multiethnic in Malaysia" which showed that women were less vulnerable to feel loneliness than men [37]. This result also contradicted with another study conducted by Singh, and Misra in Delhi in India about "Loneliness, depression, and sociability in old age" which indicated that there was insignificant relation between feeling loneliness and gender among the elderly people [38]. The results may be interpreted that the females were more frequently accessed the eldry care homes than elderly males. Furthermore, they were more susceptible to be lonely and widows than men and the loss of a spouse in elderly women was the most distressing life event they could face.

There was a significant relationship between marital status and feeling of loneliness. Single, widow and divorced (orderly) elderly people were more affected by loneliness among elderly people living at their homes and residents at eldry care homes. As well, these findings were in accordance with the findings of a study conducted by Nzabona, et al., in Uganda about "Loneliness among older persons: Examining social, economic and demographic risk factors" which showed that widow elderly people were twice liable to be lonely than elderly who were married [39]. In addition, these results supported by a study carried out by Hazer, and Boylu in Turkey about "The examination of the factors affecting the feeling of loneliness of the elderly" which illustrated that single or widowed elderly people had more feeling of loneliness than married old people [40]. Regarding the results of a study conducted by Van Tilburg, et al., in netherl ands about "Loneliness after divorce: A cohort comparison among Dutch young-old adults" it was concluded that the divorced elderly people were more liable to have feeling of loneliness than the married elderly people [41]. This result may be because of losing the intimacy relation. In addition, all residents at eldry care homes were alone either widow, divorced or single except one couple who had the permission from the government to live there and some of them were still married but they were not verbalized because of the eldry care home's restrictions and they were not known except one couple who were verbalized.

The present study reported that levels of education and feeling loneliness were significantly

correlated among elderly living at their homes whereas, levels of education among residents at eldry care homes were insignificantly related to feeling of loneliness. Furthermore, the results of the present study coincided with the findings of a study stated by Asnani, et al., in Jamaica concerning "Depression and loneliness" which revealed that elderly people with lower educational levels tended to have high feeling of loneliness [42]. On the other side, the present study was in contrast with a study conducted in nine countries of the former Soviet Union by Sticklely, et al., about "Loneliness: Its Correlates and Association with Health Behaviors and outcomes" which showed that the feeling of loneliness was not correlated to the educational levels [43]. This might be interpreted that the high level of education gave the chance for person to be employed with independent income, increased social networks, and participated in social events.

In the present study, loneliness and employment were significantly correlated among elderly people living at their homes, but there was insignificant relation among residents at nursing homes. Furthermore, the present study was in the same vein with Nicolaisen, and Thorsen in the United States regarding "Decreasing social isolation in older adults: Effects of an empowerment intervention offered through the care link program" reported that employment and feeling loneliness were correlated among older adults [44]. The possible explanation was that the retired elderly people felt that they lost a lot of their prestige and power after retirement and had empty times filled by loneliness.

The current findings illustrated that income was significantly correlated with the feeling of loneliness among elderly people living at their homes but there was insignificant relation among residents at eldry care homes. Similarly, the present findings agreed with a study conducted by Donovan, et al., in The United States concerning "Loneliness, depression and cognitive function in older United States adults" who found that low income was correlated with high feeling of loneliness [45]. Other findings of Hazer, and Boylu in Turkey revealed that the feeling of loneliness was insignificantly correlated with level of income [40]. The rationale was that low income could affect the affordability of transportation, hindered social participation and gave the elderly people feeling that they were not accepted leading to their feeling of loneliness.

The present study indicated that there was a significant relationship between loneliness and depression. More than half of those living at their

homes and two-fifth of residents at eldry care homes with moderate depression significantly had high feeling of loneliness, while more than one-third of elderly people living at their homes and two-fifth of residents at eldry care homes with severe depression significantly had high level of loneliness. This study was similar to a study demonstrated by Han, and Richardson in Columbia about "The relationship between depression and loneliness among homebound older persons: Does spirituality moderate this relationship?" which illustrated that feeling of loneliness and depression were significantly correlated [46]. As well, the findings of the present study agreed with the findings of a study conducted by Van Beljouw, et al. in Amsterdam about "Being all alone makes me sad": Loneliness in older adults with depressive symptoms" which found that elderly people detected with depression feeling were highly linked to feeling loneliness [41].

The current results demonstrated that there was a significant correlation between the feeling of loneliness and dependency in activities of daily living. As well, a similar study conducted by Hacıhasanoglu, Yildirim, & Karakur in Turkey regarding "Loneliness in elderly individuals, level of dependence in activities of daily living (ADL) and influential factors" showed that feeling of loneliness and dependency in activities of daily living were significantly correlated [8]. This was due to physical disability which impeded social interaction leading to loneliness.

It was illustrated from the study results that the most important factors that significantly affected the feeling of loneliness among the elderly people living at their homes were marital status, income, health status and depression. Furthermore, it was noticed that the most important factors that significantly affected the feeling of loneliness among the residents in eldry care homes were marital status, health status and depression. Additionally, a similar study conducted by Vakili, Mirzaei, & Modarresi in Yazd in Iran concerning "Loneliness and its related factors among elderly people" showed that gender, marital status, level of education, previous job, living in eldry care home, inadequate income, feeling healthy were accompanied by loneliness [47]. On the other hand, the present study was in contrast to a study carried out by Arslantaş, et al., in Tampere, Finland about "onset of loneliness in older adults: results of a 28 year prospective study" which explained that gender, marital status, level of education, having inadequate income and dependency in performing activities of daily life did not affect loneliness [48].

Conclusion:

Based on the findings of the current study, it can be concluded that residents at the eldry care homes significantly had feeling of loneliness more than elderly people living at their homes. Factors that significantly affected the feeling of loneliness among the elderly people living at their homes were marital status, income, health status and depression on the other side, factors that significantly affected the feeling of loneliness among those residents at eldry care homes were marital status, health status and depression.

Recommendations:

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

- Encourage elderly people to participate in the social events and increase their social contacts by visiting their family members or friends.
- Give attention to the most vulnerable elderly people to prevent the feeling of loneliness like those who lost their spouses, had depressed feeling, lived at eldry care homes or depended on fulfilling their ADL.
- Help the elderly people at eldry care homes to find the causes of depression and try to solve them using the problem solving technique.
- Concentrate on the importance of keeping the elderly people in their homes using formal and informal caregivers to meet their needs and enhance their relationship with God by doing their religious rituals and going to the house of worships.
- Enhance further studies about health educational program for elderly people about coping strategies for alleviating the feeling of loneliness.

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الشعور بالوحدة بين كبار السن المقيمين وغير المقيمين بدور الرعاية للمسنين في مدينة بورسعيد: دراسة مقارنة

يعتبر الشعور بالوحدة بمثابة مشكلة لعدد كبير من الناس، فهناك العديد من العوامل التي تؤثر على المسنين كالانفصال عن شريك الحياة أو موته، كذلك انخفاض المستوى التعليمي والاقتصادي مما ينتج عنه الشعور بالوحدة.

الهدف من الدراسة: أكتشاف الشعور بالوحدة بين المسنين المقيمين وغير المقيمين بدور المسنين في بورسعيد.

تصميم البحث: تم استخدام تصميم وصفي مقارنة لإجراء هذه الدراسة.

حجم العينة: أجريت هذه الدراسة على جميع المقيمين بدور المسنين الحكومية ببورسعيد وهم مبرة المسلمين لرعاية المسنين ودار المسنين ببورفؤاد وعددهم ٩٢ مسن، كذلك ١٤٤ مسن من مركز المناخ للمسنين بمدينة بورسعيد.

إجراءات البحث: تم جمع البيانات باستخدام استمارة مقابلة، مقياس مؤشر بارثيل، مقياس الشعور بالوحدة (ULCA) ومقياس الاكتئاب للمسنين.

النتائج: وقد أظهرت نتائج هذه الدراسة أن (٥٧.٦٪، ٢٩.٢٪، ١٣.٢٪) من المسنين المقيمين في منازلهم، لديهم شعور منخفض ومتوسط وعالي نسبياً بالوحدة، في حين أن (١٩.٦٪، ٤٥.٧٪، و ٣٤.٨٪) من المقيمين بدور المسنين لديهم شعور بالوحدة منخفض، متوسط، وعالي نسبياً، وهناك فرق دال إحصائياً.

الاستنتاج: وقد أوضحت النتائج أن الشعور بالوحدة بين المسنين المقيمين بدور المسنين أعلى منه لدى المسنين المقيمين بمنازلهم. كما أن من أهم العوامل التي تؤثر على الشعور بالوحدة هي الحالة الاجتماعية والصحية والدخل والاكتئاب.

التوصيات: وقد أوصت هذه الدراسة بتشجيع المسنين سواء في دور المسنين أو في منازلهم على المشاركة في المناسبات الاجتماعية، وزيادة اتصالاتهم الاجتماعية من خلال زيادة أفراد أسرهم أو أصدقائهم واشترائهم في أندية المسنين.