Saudi Journal of Nursing and Health Care
Abbreviated key title: Saudi J. Nurs. Health. Care.
A Publication by "Scholars Middle East Publishers", Dubai, United Arab Emirates
ISSN: 2616-6186 (E)
ISSN: 2616-7921 (P)

Impact of a Health Promotion Educational Program on Quality of life, Depressive Symptoms and Feeling of Loneliness among Institutionalized Egyptian Elderly

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Original Research Article

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Article History
Received: 04.02.2018
Accepted: 23.02.2018
Published: 10.03.2018

Abstract: Depression is a major public health problem. It is the most common mood disorder in later life associated with serious consequences, including; disability, functional decline, diminished quality of life, increased mortality and increased service utilization. This study aims to assess the impact of a health promotion program on quality of life, depressive symptoms and feeling of loneliness among institutionalized elderly in Egypt. Design: a quasi-experimental one group pre-posttest research design was utilized. Sample: A convenience sample of (60) institutionalized elderly was selected. Setting: the study was conducted at Dar El- Hanna nursing home. Tools of the study: A structured questionnaire included personal data, health assessment data and institutionalization data. Quality of life index, UCLA loneliness scale as well as geriatric depression scale were utilized. Results: revealed that, more than half of elderly were institutionalized due to absence of caregivers. A statistically significant relationship was found between duration of residence, and quality of life. There were statistically significant relationships between mean scores in pre and posttest for quality of life index in relation to satisfaction aspect at $p=0.001^{*}$, overall quality of life scale (at $p=0.008^{*}$), UCLA loneliness scale (at $p=0.001^{*}$) and geriatric depression scale (at $p\text{-}0.003^{*}$). Conclusion: the study concluded that application of health promotion program for institutionalized elderly had a positive impact on reducing depressive symptoms and level of loneliness and has improved quality of life among institutionalized elderly. Recommendation, Further psychosocial intervention and qualitative studies are needed to overcome loneliness and depression and to improve quality of life among institutionalized elderly. A specialized gerontological mental health nurses should be there for elderly in nursing homes in Egypt. Elderly should also be involved in regular physical, mental and recreational activities to enhance their physical, social and psychological health and wellbeing.
Keywords: Health Promotion, Quality of life, Depressive symptoms, loneliness, elderly

Introduction

It is estimated that the proportion of the world's population over 60 years will double from about 11% in 2000 to 22% in 2050 (WHO, 2014). As the population of older adults is increasing, understanding factors to optimize their quality of life is paramount important [1]. Quality of life is also one of the most important contemporary issues in health care today and one of the biggest health goals to improve the health of elderly [2]. In the process of aging, elderly people experience decreasing physical function and worsened general health [3]. Residents in nursing homes have many physical and psychosocial needs, as elderly people who move into nursing homes experience a rapid change in their psychophysical balance [4].

Loneliness is a major issue relating to quality of life and wellbeing facing older adult. A recent comprehensive integrated review of qualitative and quantitative studies suggested that, among the important predictors of quality of life in older adults were the presence of loneliness and feeling depressed. Loneliness which refers to a state of feelings distressed, unhappy, detached and isolated as a result of a gaping emptiness in a person's social and/or emotional life was experienced by people of all ages [5]. Retirement, disability or illness, absence of an intimate partner, family members, friends and acquaintances reduced the structure and the quality of their social network and social integration and results

in the emergence of loneliness [6]. However, loneliness in older adults, especially in those with cognitive impairment is believed to create more serious problems compared to younger people [7].

World Health Organization is predicting that by the year 2020, depression will become the second leading cause of disability. Causes and risk factors that contribute to depression among elderly include: Living alone due to deaths or relocation or decreased mobility due to illness [8]. Estimates of major depression in older people living in the community range from less than 1 percent to about 5 percent, but rises to 13.5 percent in those who require home health care and to 11.5 percent in elderly hospital elderly [9].

Other studies estimated the prevalence rate of late-life depression to range between 4.5% and 37.4% [10]. In addition to that, a recent review study of late-life depression indicated that, the incidence rate of major depression in older adults was 0.2–14.1/100 person-years, and incidence of clinically relevant depressive symptoms was 6.8/100 person-years [11]. Various factors such as poor activities of daily living, poor cognitive abilities, chronic physical illness and having a poor social relation had been investigated to have two ways relationship with late-life depression and loneliness [12,13]. These factors could contribute to the occurrence as well as complicate further the late-life depression which leads to poor quality of life among older adults [14].

Significance of the study

The world is aging fast, and one of the greatest challenges of the twenty first century is the tremendously increased numbers of elderly [15, 16]. Increased longevity is not only a triumph for society but a huge challenge. It is essential to be prepared to address the needs of the elderly at the community level. Therefore, it would be paramount that health care providers including nurses are well versed in common symptoms or problems among elderly, which can often be prevented or delayed [16]. It is also worth saying that, the incidence of depression and loneliness was higher in older people who were in worse health, living in a care facility or nursing home, experience disability, loss or who were otherwise isolated.

Psychosocial studies among elderly pointed out that most of them experience different degrees of depression, loneliness, life dissatisfaction and cognitive impairment. From the clinical experience of research investigators, it has been observed that aging is associated with poor bio-psychosocial health especially among institutionalized elderly where low level of self-health perception, self-esteem and depression were a major problem therefore; nursing role aims to assist elderly to strengthen lines of defense and resistance to promote health [17].

Researchers have conducted numerous studies examining depression and loneliness in elderly clients including its causes, diagnosis, and treatment. According to Hall and Reynolds [18]depression creates a medical burden on elderly as they are less likely to have adequate control over co morbidities such as cardiovascular disease and diabetes. Additional consequences of depression, in the elderly, include an increased risk for medical illnesses, loss of functional ability, cognitive decline, decreased quality of life, and both and suicide as reported by National Alliance on Mental Illness [19].

It was observed from literature that little is known about loneliness and late-life depression among institutionalized elderly in Egypt. Although nurses play a pivotal, multifaceted role in bio-psychosocial assessment and meeting holistic health care needs of elderly, it was also observed that, nursing interventions to address depression and loneliness included psychological counseling therapy only. Scarce studies have examined the effect of holistic physical as well as psychosocial functioning interventions among elderly. Thus, this health promotion intervention used a bio-psychosocial approach through educating elderly about elements of health promotion such as proper nutrition, maintaining mental and physical activities, stress management, proper sleep and addressing risk factors of depression and loneliness which may lead to functional and psychosocial improvement. This study could also provide nurses and other health care professionals with an in depth knowledge related to this topic which could be reflected positively on the quality of elderly lives. Moreover, findings of this study might help in improving the quality of elderly health care and establish an evidence -based data that can promote nursing practice and research. Therefore this study was aimed to assess the impact of a health promotion program on quality of life, depressive symptoms and feeling of loneliness among institutionalized elderly in Egypt.

Research hypotheses:

H1: elderly who are exposed to the health promotion program will exhibit higher quality of life post-test scores than pre-test scores.

H2: elderly who are exposed to the health promotion program will exhibit lower depressive symptoms scores in post-test than in pre-test.

H3: elderly who are exposed to the health promotion program will exhibit lower level of loneliness scores in post-test scores than pre-test.

S**ubjects and Methods**

Research Design: A quasi- experimental (one-group pre/posttest research design was utilized in the study.

Setting: Dar El- Hanna nursing home was randomly selected from a list of long-term care facilities that follow Cairo governorate.

Sample: sample size was calculated using the free online sample size calculator website to be 60 male and female elderly clients was selected at convenience.

Tools for data collection:

1- A structured questionnaire was developed by researchers including:

a. Personal data includes questions about elderly age, gender, marital status, level of education, and previous occupation (5 items).

b. Health assessment data includes questions about medical history, health and dietary habits, and activity of daily living etc. (20 items).

c. Institutionalization data include questions such as length of stay and causes of institutionalization (4 items)

2- The Arabic version of Ferrans and Powers Quality of Life Index (QLI) was used with permission from authors. The QLI measures both satisfaction (33 items) and importance (33 items) regarding various aspects of life such as health, health care, freedom from pain, self-care, family , children, friends, psychological support, happiness, life satisfaction, fulfilling family role, room he/she lives in, psychological stress in life, free time activities, financial arrangement, etc.. The QLI produces five scores: quality of life overall and in four domains (health and functioning, psychological/spiritual domain, social and economic domain, and family). Importance ratings are used to weight satisfaction responses, so that scores reflect satisfaction with the aspects of life that is valued by the individual. Responses were measured on a 6-point scale ranging from very satisfied to very unsatisfied or very important to very unimportant. Internal consistency reliability for the QLI (total scale) was supported by Cronbach's alphas ranging from .73 to .99. Convergent validity of the QLI was supported by strong correlations between the overall (total) QLI score and Campbell, Converse, and Rodgers' (1976) measure of life satisfaction (r = .61, .65, .75, .77, .80, .83, .93) (Bliley &Ferrans, 1993; Ferrans& Powers, 1985; Ferrans& Powers, 1992; Anderson &Ferrans, 1997; Ferrans, 1990). Juries of five experts in gerontological and psychiatric nursing specialty have examined the content validity.

3- UCLA loneliness scale (Version 3) was also used. It was developed by Russell (1996) and consists of twenty items which assess feeling of loneliness among elderly people. It is divided into 2 subscales; the first subscale consists of 10 items, which reflect satisfaction with social relationship such as "I feel in tune with people around me" and " I feel part of a group of friends". The second sub-scale comprises 10 items, which reflect the sense of dissatisfaction with social relationship such as" I lack companionship" and " there is no one I can turn to" responses were measured on a 3-point scale (0=indicate never, 1= sometimes, 2=often), while for items of negative responses (for questions 2,3,4,7,8,11,12,13,14,17&18) scoring was done as following (0) often, (1) sometimes, and (2) never for positive responses (for question number 1,5,6,9,10,15,16,19,20) with a total score of 0-40. This scale was translated into Arabic language. Both the Arabic and English items were submitted to five experts from the English section, Faculty of Art, Cairo University to be reviewed for its translation and back translation. The scale was translated and tested for content validity by Abdel-Salam (1996). The cronbach's alpha coefficient was 0.87. Scoring system of UCLA loneliness scale was done as following, the higher the score, the higher the feeling of loneliness. The total score was divided into: low feeling of loneliness (0-< 10), or mild feeling of loneliness (10-<20) or high feeling of loneliness (20-40).

4- Geriatric Depression Scale (GDS) was developed by yesavage, brink, rose & lum (1983). It is a simple, 30-item, yes/no questionnaire that identify possible depression among elderly people. The scoring system for geriatric depression scale was done by giving "zero" score for each item that is "none depressive" and 1 score for each "depressive" answer. For reverse answers; 1,5,7,9,15,19,21,27,29,30, each "yes" answer equal 1score while each "No" answer equal "zero" score. Total score is 30 and it was divided into: not depressed (0-10) or possible depression (11-14), or mild depression (15-19), or severe depression ≥ 20. The scale was tested for content validity by Ertan, Kizilitzn, and Uygucgil, 2005. The cronbach's alpha coefficient was 0.92. The scale was translated by researchers into Arabic language and it was tested for reliability by test- retest reliability coefficient which was 0.84 with a two weeks intervals.

Inclusion criteria: Elderly clients over 60 year of both genders who are fully conscious, and able to communicate well.

Exclusion criteria: immobilized elderly or elderly with disturbed level consciousness or diagnosed with mental illness such as depression or dementias of any type were excluded.

Ethical consideration: This study was approved by research ethics committee of the Faculty of nursing; Cairo University. An official permission was obtained from director of nursing home. A meeting was scheduled with the director of Dar El-Hana nursing home to conduct the study. Once all official permissions were granted, a date was chosen to conduct the study according to the available time of elderly. A detailed description of the study, procedure and questionnaires was explained to recruited elderly. Elderly were informed that they have the right to refrain from participating in the study at any time without experiencing any negative consequences. Informed written consents were obtained from all eligible elderly who agreed to participate in the study. Data confidentiality and elderly privacy were secured. Code numbers were created and kept by the researchers to keep anonymity of elderly.

Health promotion program (12 sessions): like all health professionals, psychiatric and gerontological nurse practice is based on the concept of prevention which should begin with recognition of a health risk, and is followed by measures to protect elderly from harmful consequences of that risk. More importantly, nurses should focus on the "Promotion, protection and restoration of elderly health within the context of a safe and healthy nursing home environment. One of the crucial roles of nurses is to plan, develop, implement, and evaluate health promotion programs for elderly to improve quality of life, and to decrease depressive symptoms as well as level of loneliness among the vulnerable institutionalized elderly. The program was developed by researchers and its content was revised by 2 experts in the field of psychiatric and gerontological health nursing. Health promotion program was developed using the health planning methodology, starting with a descriptive part (assessment and diagnosis of health teaching needs) followed by the development, implementation and evaluation of health promotion program, which included visits to the elderly in geriatric home, assessment of the level of loneliness in two different times (UCLA scale) and various activities of social life (exercises, walking, games...). The program consisted of 12 sessions (theoretical and practical) which were done twice weekly. Each session lasts from 60-90 minutes.

Theoretical part included health education sessions for elderly about concepts and application of health promotion elements into elderly self-care activities. Elderly were provided with sessions about promoting health through nutrition (food pyramid, dietary guidance and smoking cessation), exercise and physical activities (exercise pyramid, exercise counseling and practice of range of motion exercises, gardening), sleep and rest guidelines, stress management techniques (practical sessions), self- help/ group support and life review to reduce feeling of depression and feeling of loneliness and to encourage group participation among elderly, environmental sanitation and hygienic care counseling was also incorporated into the program, elderly were encouraged to practice self-care activities (e.g morning care, hygiene and grooming). Different types of social activities such as discussing their hobbies and interest and providing elderly with an active role were allocated to the group of social activities/engagement intervention. Religious aspect such as prayer and religious rituals was included. Recreational activities included reading, watching television using as a medium for group discussion and exploration. Reading books and newspapers, and watching television create a link between the elderly and the external world.

The current program consisted of three phases:
1-**Assessment phase**: Researchers interviewed all participants during the first session to ensure their agreement to participate in the program. The purpose of the study was explained for elderly and nursing staff to gain support and corporations. Researchers interviewed elderly for about 45-60 minutes. Data were collected from Mars 2017 to July 2017. Moreover, baseline assessment was done before the program implementation through the relevant selected tools (personal data questionnaire, UCLA loneliness scale, geriatric depression scale and quality of life index).

2-Implementation phase: it lasts from 2^{nd} to 11^{th} session to implement the health promotion program with elderly. Theoretical content was introduced at the beginning of the session using health teaching methods and skills such as group discussion, role play, modeling, reinforcement, and exchanging personal experience through the group. For the practical part, each skill lasted from one to two sessions to be taught and reviewed for elderly clients.

3- Evaluation phase (12th session) to evaluate the impact of the program in the posttest and making summery for conclusion and ending the relationship. Each session ended with an evaluation of the session itself, and with comments about the next session's main points.

Pilot Study: A pilot study was conducted on 6 (10%) of elderly clients to check clarity and feasibility of the items and to determine time needed to fulfill the questionnaire. Pilot sample was included in the actual research.

Statistical data analysis: Data were analyzed using SPSS statistical package (version 16). Numerical data were expressed as Mean ± standard deviation. Quantitative data were expressed as frequency percentage. Chi-square test was used to examine the relation between quantitative variables; Paired T. test and ANOVA test were used for comparison between means of groups. Pearson Correlation was also used to test the relation among the study variables P-value = 0.05 was considered significant.

Results:

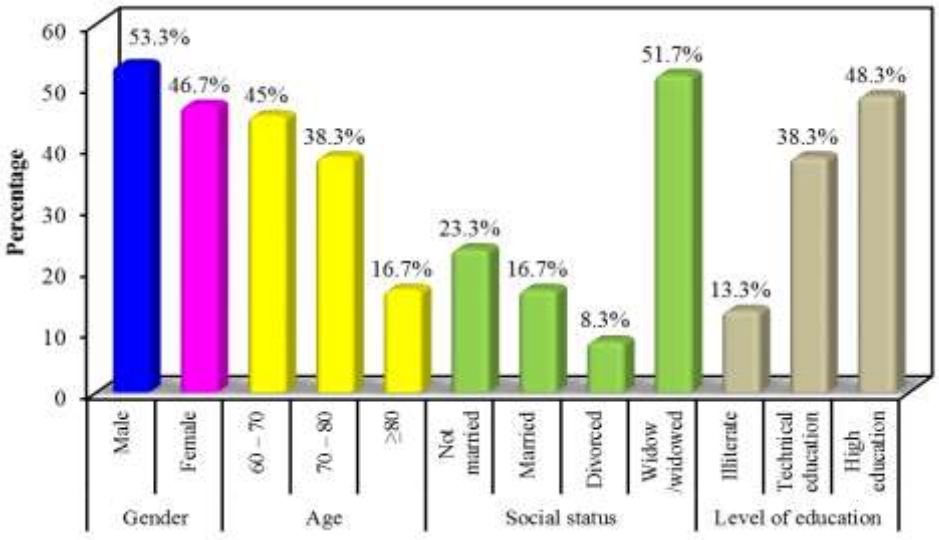

Figure (1): Frequency distribution of elderly regarding personal characteristics (n= 60)

Figure (1) illustrates that, concerning gender of elderly, nearly half of them 53.3% were males with mean = 71.52±7.0. In relation to marital/ social status, 51.7 % of elderly were widowed (30% of them had no siblings). Concerning level of education, 48.3 % of elderly were highly educated.

Table-1: Frequency distribution of elderly regarding institutionalization data (n= 60)

Items	No.	%
Work before retirement		
Employee	37	61.7
Business man	2	3.3
Didn't have an occupation	3	5.0
House wife	18	30.0
Does your income cover your financial needs?		
Yes	38	63.3
No	22	36.7
Causes of admission		
I don't have anyone to care for me	32	53.3
Feeling loneliness	11	18.3
I have no place/shelter to live in	4	6.7
To avoid familial conflict	4	6.7
My sibling don't want me to live with them	2	3.3
1&2	7	11.7
Length of stay in nursing home (institutionalization) in years		
Min. – Max.	1.0 – 96.0	
Mean ± SD.	13.35 ± 18.05	

*** All responses are not mutually exclusive**

Table (1) shows that, the mean length of stay in nursing home was (13.35 ± 18.05). As regards, causes of admission, 53% of the elderly were admitted to institution due to absence of caregiver. In relation to source of monthly

income, 61.7% of elderly were employed before retirement. Moreover, 63.3% of elderly reported that their pension/income didn't cover their financial needs.

Table-2: Frequency distribution of elderly according to health history (n= 60)

Items	No.	%
Do you have chronic illness?		
Yes	57	95.0
No	3	5.0
Types of chronic illness		
Hypertension	34	59.6
Diabetes mellitus	5	8.8
Both hypertension and diabetes	14	24.6
Arthritis	4	7.0
Heath check up		
Yes	21	35.0
No	39	65.0
Dental check up		
Yes	13	21.7
No	47	78.3
Do you have insomnia?		
Yes	45	75.0
No	15	25.0
No of sleeping hours		
Min. – Max.	13.0 – 14.0	
Mean ± SD.	6.58 ± 2.29	

Table (2): reveals that 95% of elderly had chronic illness, while 75% of them had insomnia. In relation to general health checkup, 65% of elderly didn't get periodical checkup for health, whereas, only 21.7% of them got dental checkup.

Table-3: Frequency distribution of elderly according to health habits (n= 60)

Items	No.	%
Smoking		
Yes	21	65.0
No	39	35.0
Do you eat a healthy diet		
Yes	29	48.3
No	31	51.7
Do you practice exercise		
Yes	11	18.3
No	49	81.7
Number of glasses of water per day		
Min. – Max.	2.0 – 10.0	
Mean ± SD.	5.40 ± 2.14	

Regarding health habits of elderly, table (3) reveals that, 65% of elderly were smokers; moreover, 81.7% of elderly didn't practice any type of exercise. Moreover 51.1% of elderly reported that, they didn't eat a healthy diet.

Table-4: Frequency distribution of elderly regarding activity of daily living (n= 60)

Do you need assistance during	No.	%
Eating		
Yes	15	25.0
No	45	75.0
Bathing		
Yes	38	63.3
No	22	36.7
Changing clothes		
Yes	30	50.0
No	30	50.0
While getting upstairs		
Yes	27	45.0
No	33	55.0
During bathroom		
Yes	29	48.3
No	31	51.7
Transfer to a wheelchair		
Yes	29	48.3
No	31	51.7
Walking		
Yes	36	60.0
No	24	40.0

Table (4): demonstrates that, regarding practicing of daily living activities among elderly, 75% of elderly didn't need any assistance during eating, while 63.3 % of them need help during bathing and 60% need assistance during walking and 51.7 % need assistance during bathroom or transfer to a wheelchair.

Table-5: Relationship between overall quality of life index (QLI) and duration of institutionalization (n = 60)

Variable	**Overall quality of life index (QLI)**					
	Pretest			**Posttest**		
	<60 Poor (n = 36)	60 –<75 Fair (n = 16)	≥75 Good (n = 8)	<60 Poor (n = 25)	60 –<75 Fair (n = 26)	≥75 Good (n = 9)
Duration of residence						
Min. – Max.	1.0 – 96.0	1.0 – 36.0	1.0 – 5.0	1.0 – 72.0	1.0 – 96.0	1.0 – 6.0
Mean ± SD.	18.97 ± 20.87	6.25±8.35	2.25 ± 1.49	15.20±16.31	15.31±21.52	2.56 ± 2.01
F(p)	5.123* (0.009*)			1.954 (0.151)		

***P<0. 05**

Table (5): clarifies that, a statistically significant difference was found between duration of residence and quality of life at (F -5.123, P -0.009).

Table-6: Comparison between pre and posttest scores regarding quality of life index (QOLI) (n= 60)

Quality Of Life Index (QOLI)	Pre test	Posttest	p
Satisfaction			
Total score			
Min. – Max.	43.0 – 198.0	93.0 – 189.0	<0.001*
Mean ± SD.	120.63 ± 30.37	135.87 ± 19.18	
% score			
Min. – Max.	6.06 – 100.0	36.36 – 94.55	
Mean ± SD.	53.11 ± 18.41	62.34 ± 11.62	
Importance			
Total score			0.414
Min. – Max.	59.0 – 198.0	95.0 – 198.0	
Mean ± SD.	133.52 ± 31.09	136.62 ± 27.36	
% score			
Min. – Max.	15.76 – 100.0	37.58 – 100.0	
Mean ± SD.	60.92 ± 18.84	62.80 ± 16.58	
Overall quality of life			
Total score			0.008*
Min. – Max.	146.0 – 396.0	195.0 – 385.0	
Mean ± SD.	254.15 ± 55.60	272.48 ± 38.65	
% score			
Min. – Max.	24.24 – 100.0	39.09 – 96.67	
Mean ± SD.	57.02 ± 16.85	62.57 ± 11.71	

Table (6) shows that, there was a statistically significant difference between mean scores pre and posttest for quality of life index in relation to satisfaction (120.63 ± 30.37, 135.87 ± 19.18, at p=0.001*), also a statistically significant difference was found between mean scores pre and post-test for overall quality of life scale (254.15 ± 55.60, 272.48 ± 38.65at p=0.008*).

Table-7: Comparison between pre and post-test regarding geriatric depression scale (n= 60)

Geriatric Depression Scale	Pretest		Posttest		P
	No.	%	No.	%	
Not depressed (0-10)	17	28.3	31	51.7	^{MH}p 0.002*
Possible depression (11-14)	14	23.3	13	21.7	
Mild depression (15-19)	13	21.7	10	16.7	
Severe depression ≥ 20	16	26.7	6	10.0	
Total score					
Min. – Max.	0.0 – 28.0		5.0 – 24.0		^{t}p= 0.003*
Mean ± SD.	14.67 ± 6.56		11.13 ± 4.77		
% score					
Min. – Max.	0.0 – 93.33		16.67 – 80.0		
Mean ± SD.	48.89 ± 21.85		37.11 ± 15.90		

***P<0. 05**

As shown in table (7), a statistically significant differences between mean scores pre and post-test in relation to geriatric depression scale (48.89 ± 21.85, 37.11 ± 15.90 at p-0.003*).

Table-8: Comparison between pre and post-test regarding UCLA loneliness scale (n= 60)

UCLA loneliness scale	Pretest		Posttest		p
	No.	%	No.	%	
Low feeling of loneliness (0-< 10)	4	6.7	15	25.0	^{MH}p 0.003*
Mild feeling of loneliness (10-<20)	10	16.7	15	25.0	
High feeling of loneliness (20-40)	46	76.7	30	50.0	
Total score					
Min. – Max.	4.0 – 37.0		1.0 – 27.0		^{t}p <0.001*
Mean ± SD.	24.13 ± 8.43		15.52 ± 6.88		
% score					
Min. – Max.	10.0 – 92.50		2.50 –67.50		
Mean ± SD.	60.33 ± 21.07		38.79 ± 17.19		

***P<0. 05**

Table (8): illustrates that, a statistically significant difference was found between mean scores pre and post-test in relation to UCLA loneliness scale (60.33 ± 21.07, 38.79 ± 17.19 at p=0.001*)

Table-9)-: Correlation between different study variables during pre and post-test (n = 60)

Variables	Pre		Post	
	R	p	r	p
Activity of daily living versus depression	-0.066	0.614	0.240	0.065
Activity of daily living versus loneliness	-0.246	0.058	0.155	0.237
Activity of daily living versus quality of life	-0.009	0.946	–0.111	0.400
Depression versus loneliness	0.462*	<0.001*	0.319*	0.013*
Depression versus quality of life	-0.053	0.687	-0.477*	0.001*
Loneliness versus quality of life	-0.188	0.150	-0.505*	<0.001*

***P<0. 05**

As shown in Table (9), there was a statistically significant positive correlation between depression and loneliness among elderly in pre and post-test at (r-0.462, P<0.001). A statistically significant negative correlations was also found between quality of life, depression and loneliness at (r-0.477,*P-0.001, r-0.505, P-0.001).

Discussion

Clearly, depression is the most common mood disorder in later life. It may be associated with serious consequences, including; disability, functional decline, diminished quality of life, increased mortality and increased service utilization. Moreover it is undiagnosed in about 50% of cases [20]. Loneliness, the personal reaction to social isolation, also has unpleasant emotional impacts on older adults. In many cases, depressive symptoms such as withdrawal, anxiety, lack of motivation and sadness mimic and mask the symptoms of loneliness. Promoting personal health practices and coping skills among at-risk older adults are crucial to prevent depression and loneliness [21]. Health promotion activities are an important element of nursing care, even when older adults have one or more chronic illnesses.

Discussion of study results will cover description of personal data of elderly, health assessment and health habits, as well as hypotheses testing of relationship among levels of depression, loneliness and quality of life before and after introduction of health promotion program. Study results revealed that the mean age of elderly was seventy one. Around half of them were highly educated, and widow/widowed. Two thirds of elderly were employees before retirement and less than two thirds reported that their income was not enough for meeting their financial needs. The mean number of years spent in geriatric home was thirteen years. Reasons for institutionalization included absence of caregivers among more than one third of elderly or feeling of loneliness among eleven percent of them. These findings were similar to Sayied et al [22, 23].

The current study also revealed that around half of elderly didn't have siblings, this result was similar to a study done by Zhang, and Liu, [24]who identified that, the childless elderly were less satisfied with their lives and feel more anxious and lonely than do parents. Jung, Kim, & Cho, [25]also revealed that elderly can be satisfied when they have good relationship with their sons and daughters. This was also in the same line with previous study done by Singh, and Misra, [26]who found that, many people experienced loneliness and depression in old age, either as a result of living alone or due to lack of close family ties, which results in an inability to actively participate in the community activities. Authors also added that with advancing age, it is inevitable that people lose connection with their friendship networks

and that they find it more difficult to initiate new friendships and to belong to new networks. Elderly who had children and relatives were more satisfied because of their feelings that, they have a family to ask about them even from time to time especially during illness. This result was in line with previous researches done by Kilinc [27]who found that, meaningful social contacts are important part of well-being and high levels of satisfaction with relatives and friends leads to acceptance of ageing and increased satisfaction with life among the elderly.

Regarding health assessment data, almost all elderly reported that, they had chronic diseases including hypertension among more than half, or co morbidity of hypertension and diabetes among more than one third of elderly. The current study pretest assessment data also revealed that more than half of elderly had poor to fair quality of life whereas, more than seventy percent of elderly had mild to severe depressive symptoms and loneliness feelings, while nearly three quarters of them had insomnia. This percentage is higher than findings of a study conducted by Ahmed et al., [28]found that the prevalence of depression among a studied group of elderly in Egypt was 37.5%. Old age and the presence of co morbidities were predictors for depression. Female sex, a lower social class, insufficient income, partial independence and loneliness feeling are significant predictors for depression. Authors also found loneliness feeling as a significant predictor for anxiety, whereas the functional status is a significant predictor for mixed depression and anxiety. Fereshteh et al., [29] also reported that high loneliness of the elderly living at nursing home may be due to their social isolation. They lose useful and effective relationships with their close friends due to their residence at a nursing home and also due to reducing the relationship, material and psychological support also reduce that, this is not non-effective in high loneliness of the elderly in these centers. In addition, people in these centers lose the ability to dominate their life and can make decisions and choose, in these circumstances, they find themselves powerless, passive and totally dependent on their assessment and have reached the absurdity. From research investigators point of view, many institutionalized elderly with chronic diseases often feel loss of control over their health and wellbeing which might be reflected in poor functional health status and quality of life which consequently lead to depression.

More than two thirds didn't get regular checkup on their health, while majority of them reported that, they didn't get dental checkup. Regarding health habits of elderly, majority of elderly didn't practice any type of exercise. Moreover, more than two thirds of them were smokers. Around half of elderly reported that, they eat healthy diet. In relation to need of assistance for elements of activity of daily living, about one fourth of elderly needed assistance during eating while two thirds of them needed help during wearing their clothes, whereas half of elderly needed assistance while getting upstairs, during bathroom, while leaving wheelchair or need assistance during walking. The current study also revealed that, more than two thirds of elderly had poor to fair quality of life and suffered from symptoms of mild to severe depression.

This goes with Park & Lee, [30] identified that, elderly satisfaction requires the physical capability of activity in their daily lives. Similarly, Subas, &Hauran, [31] reported higher life satisfaction scores for elderly who take part in regular recreational activities. From researchers point of view this might be explained that regular physical activity was an important component of successful ageing as it produces significant health benefits because it improves bio-psychosocial health and functional status of the elderly. Regular exercise correlates not only with physical health and fitness levels but also with mental health as well.

Sarkisian, Hays and Mangione [32]also reported that, individuals with lower life satisfaction and lower expectations about aging typically do not perceive it as important to seek health care for age-associated conditions and therefore experience higher levels of depression, have less energy and poor health-related quality of life. From the current researchers' point of view, loss of functional ability could definitely exacerbate feelings of depression. Elderly feels that, they are growing older and becoming more fragile and the availability of someone caregivers give them a more relaxing feelings and more life satisfaction. Also, ageing leads to a natural weakening of functions and forces the individual to rely more on support from kin and society.

There was also significant relationship between duration of institutionalization and overall quality of life among elderly in geriatric home. From the current researchers' point of view, institutionalization is a great source of stress and dissatisfaction among elderly in Egypt. Institutionalization is most probably correlated among elderly with being disabled, dependent and being psychosocially unhealthy. It may be a cause of loneliness and depression among elderly, many elderly felt that their siblings just throw them in this place just to get rid of them and their burden. So, multidisciplinary psychosocial programs are strongly recommended for elderly living in these long- term care facilities. These programs must include nursing measures such as helping the elders cope with relocation process, express feelings, reestablish contacts with family and friends and reestablish medical, financial and dietary regimen.

The results of the present study revealed that, there were a highly statistically significant correlation between depression and loneliness. This goes with Chou & Chi [23], Sayied et al., [22], and [23] who found that, depression with

feelings of loneliness leads to more pronounced motivational depletion and serious consequences, including social isolation, reduced self-care, decreased mobility and poor diet. In the same line, Archana & Nishi [34] demonstrated that, an older person in good physical health had a relatively low risk of depression. Physical health is indeed a major cause of reduced depression in late life. There were many reasons for this, which include the psychological effects of living with an illness and disability, the effects of chronic pain; the biological effects of some conditions and medications that can cause depression through direct effects on the brain; and the social restrictions that some illnesses place upon older people's life style resulting in isolation and loneliness.

These findings also goes with Anna et al., [35]who found that, as people grow old, the likelihood of experiencing age-related losses increases. Such losses may impede the maintenance or acquisition of desired relationships, resulting in a higher incidence of loneliness. Many people experience loneliness either as a result of living alone, a lack of close family ties, reduced connections with their culture of origin or an inability to actively participate in the local community activities. When this occurs in combination with physical disablement, demoralization and depression are common accompaniments; furthermore, a study was done by [24]who found that, loneliness was the source of many of the mental problems such as depression, suicide and despair. These might have been due to the fact that, limited social network and loneliness were associated with depressive symptoms and depression. Current researchers suggest that, feeling lonely may not only depends on the number of connections one has with others but also whether or not one is satisfied with his life style. An expressed dissatisfaction with available relationships is a more powerful indicator of loneliness.

Regarding relationship between pre and post program according to geriatric depression scale, UCLA loneliness scale overall quality of life index, a statistically significant differences was found between total mean score of pre and posttest at p=0.003, p=0.001and p=0.001 respectively. This result was in agreement with a study done by Anvar, [36]who found that, elderly people looks back to all the unpleasant events in his/her own mind, therefore he/she will be disappointed and hopeless and their thoughts endure a very powerful negativism so that the person sees a dark and blurred world and would not be able to see the positive aspects. So counseling therapy help elderly people to ventilate their feelings and provide them with a constant self-confidence and make them change their broken identities to heroic status. This might be explained that, social support groups was designed to strengthen social networks may decrease loneliness among older adults as well as help to increase social contacts and social activities of older people.

Additionally, Sayied et al, [23] evaluated the effect of counseling sessions as a nursing intervention on depression and loneliness among elderly at Assiut city and found that, counseling sessions were effective on reducing depression and loneliness among elderly people. Similarly, Ching, [37], found that, counseling therapy helps in improving senile cognitive orientation and prevents or eliminates older depression. This goes with Anvar et al, [36] and Naziri et al., [38]who found the same results. Dias, Silva, Dias and Oliveira, [39]found in their study titled" intervention in the loneliness of the elderly, what strategies, challenges and rewards?", that there was a decrease from 62.8% to 41.9% in the reported overall feeling of loneliness of independent individuals between the ages of 65 and 84 years of age. Authors also added that, the reduction of social and emotional isolation resulted in the promotion of social networks, which not only encouraged social interaction but also considered the elderly who live alone. The health gains arising from it are evidenced in contributing more proactively and the improvement of the quality of life in the elderly community.

This was in the same line with Kharicha *et al.*, [21] who reported that, promoting personal health practices and coping skills among at-risk older adults are also crucial if social isolation is to be prevented. The author also added that, identifying older adults who are reluctant to engage in social activities, and/or health promotion and illness preventative measures could be the mission of all nurses regardless of where they work. According to Wilson, [40], a search for relevant literature in two (CINAHL and Medline) library databases was conducted in 2009 and again in 2010 for an informed understanding of why social isolation occurs and to identify evidence-based options to prevent or address social isolation. Three of the 12 health determinants were identified as being critical to understanding and therefore preventing social isolation among older persons: (i) income and social status; (ii) social support networks and (iii) personal health practices and coping skills. All three can be addressed through policy and action strategies that are initiated and/or progressed by nurses. In the same line, a study done by Sayied, [23]reported that, feeling lonely not only depends on the number of connections one has with others but also whether or not one is satisfied with his life style. An expressed dissatisfaction with available relationships is a more powerful indicator of loneliness. This may be due to the loss of a significant person in one's life or as a result of dysfunction of communication .In this respect, prevention of depression among older adults could be viewed as an important part of the mental health promotion concept.

In contrast, a study done by Chen, &Hicks [5]who reported that, having few social contacts or living alone does not assure a state of loneliness for elderly people the time spent with family may be less enjoyable than a visit to a

neighbor or someone of their age group. This can be attributed to the fact that, relationships with family tend to be obligatory whereas those with friends are a matter of choice. This further emphasizes the need for a perceived internal locus of control over social interaction as a means of alleviating loneliness.

Regarding relationship between pre and post program according to quality of life index, there was a statistically significant difference between total mean scores pre and post-test group for quality of life index in relation to satisfaction (at p=0.001) also a statistically significant difference was found between total mean scores pre and post-test group for overall quality of life scale (at p=0.008). This finding was consistent with a study done by Anna et al., [35]who found that, psychosocial interventions which focusing on enhancing the mental health of older adults displays a statistically significant improvement on quality of life and positive mental health among studied participants. The interventions also had a weak but statistically significant effect on reducing depressive symptoms among elderly. Moreover, a study done by Monteiro, and Neto, [41] added that, as they get older people were faced with new challenges and new demands. Education/Enrichment of their knowledge is therefore one of the means of responding to the challenges the elderly were imposed by age and society, increasing their empowerment. Participation in educational activities is also seen as a key to individual and social success, because it promotes the intellectual, physical, emotional and social welfare. From research investigators point of view, one of the strength of this study is engaging institutionalized elderly in a bio-psychosocial health promotion program to reduce depressive symptoms, feeling of loneliness as well as improving their quality of life.

Conclusion

It was concluded that, there were a highly significant difference between pre/ posttest mean scores of study variables; A statistically significant relationship was found between duration of residence, and quality of life. There were statistically significant relationships between mean scores in pre and posttest for quality of life index in relation to satisfaction aspect at p=0.001*, overall quality of life scale (at p=0.008*), UCLA loneliness scale (at p=0.001*) and geriatric depression scale (at p-0.003*). These findings suggestes that, health promotion program has improved quality of life and reduced level of depression and loneliness among institutionalized elderly people.

Recommendation

1. Further psychosocial health education interventions and qualitative studies are needed to assist psychologists and nurses to overcome the problem of depression and loneliness and to improve quality of life among institutionalized elderly.
2. Institutionalized elderly should be encouraged to participate in regular physical and recreational activities including exercise and sports to enhance their physical, social, psychological health and wellbeing.
3. A specialized gerontological health nurse should be recruited in long term care facilities in Egypt.

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