The Impact of Reminiscence Program on Depressive Symptoms, Loneliness & Quality of Life among Elderly People, Egypt

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Abstract.

Background: The proportion of the elderly population is increasing with continuous medical progress worldwide. Elderly people often suffer both physiological and psychological illness. Reminiscence program is useful to reduce some psychological problem and assist the elderly to adapt aging process consequences. This study **aims to** assess the impact of reminiscence program on depressive symptoms, feeling of loneliness and quality of life among elderly people in Egypt. **Subjects:** study was carried out on 45 institutionalized elderly to assess the tools used clarity and applicability. **Setting:** Our study was conducted at Dar El-mohafza geriatric home at El-Sharkia governorate. **Tools for data collection:** A structured questionnaire include: personal data, geriatric depression scale, loneliness scale and quality of life scale was used. **Results:** Our results revealed that the mean depression score decreased from a pre-intervention level to a post-intervention level and this improvement was highly statistically significant. Also, we observed a statistically insignificant correlation between participants' scores of depressive symptoms and loneliness score after intervention. **Conclusion:** Our study concluded that application of reminiscence program for elderly had a positive impact on reducing the depressive symptoms and loneliness level and consequently improving the quality of life among elderly. **Recommendation:** We recommend that elderly people should be involved in varied reminiscence activities in different caring homes.

Keywords: Reminiscence, Depressive symptoms, loneliness, Quality of life, elderly.

Introduction

According to **(World Health Organization (WHO), 2017**), the ratio of people aged ≥ 60 years will increase from 12% (at 2015) to 22% (at 2050) of the total global population, indicating that the human average life span has been increased than in the past across the globe. Likewise, it is expected that the ratio of aged people in Egypt is increasing from 7.3% (at 2011) to 11.6% (at 2023) of the total population due to health services progress **(Abd El-Aziz Elsayad et al., 2017)**. Under physiological conditions, senility causes gradual disability and loss of some physiological and psychological functions and even involvement of elderly in the society. As many life changes occur, as life-partners or friends deaths and retirement, the aged people suffer more isolation and depression and even some medical issues. Depression is the most debilitating yet the most treatable illnesses in elderly and cause a persistent feeling of sorrow and loss of interest. Highly prevalence rate of depressive disorders was recorded in elderly,

between 4.5 to 37.4% universally, so will become the second leading cause of disability as predicted by WHO by the year 2020. Left untreated, depression affects physical health and life enjoy in addition to impairing memory and concentration. Loneliness and depression are closely associated with each other, as significant predictors of quality of life. Loneliness is a state of feelings sad and isolated due to empty in an elderly's social life. Aging alone is not responsible for these negative emotions. Poor daily activities, cognitive abilities and social relation may contribute to depression and loneliness, leading to poor quality of life among elderly **(Bektaş et al., 2017; Rady & Ebied, 2018)**.

Old people should have ego integrity to be satisfied with their lives, according to Erikson's psychosocial theory which defined it as the ability to find value in one's past and to face death with courage. The most common method for elderly to possess ego integrity is the reminiscence therapy. Reminiscence therapy is type of psychotherapy makes elderly aware of senility and death, organizes their lives with acceptance of life and death and increases their life satisfaction **(Jo & An, 2018)**. There are two main methods for reminiscence therapy; individual reminiscence and group reminiscence. Individual reminiscence therapy is managed via personal conversation or activities, while group reminiscence is executed through organized group activities for the beneficial identification and belonging among elderly patients **(Song et al., 2014**).

Nursing Interventions Classification system defines reminiscence therapy as an involvement psychotherapy where patient recall and focus on his former memories including events, feelings, and beliefs to facilitate adaptation for personal health and life satisfaction **(Bulechek & McCloskey, 1995)**. In reminiscence therapy sessions, participants remember their past by aids of photos, music, objects, and videos to reduce depression and confusion. So, healthcare professionals can recognize and estimate participant life relating self-health perception, coping skills, cultural views and psychological factors as depression, loneliness, socialization, comfort, stress, self-esteem, cognition and language skills **(Tarugu et al., 2019; Zeinab, A. et al., 2012)**.

Significance of the study

According to Egyptian psychosocial studies, most of elderly have variable levels of depression, loneliness, life discontent, and cognitive weakness. Likewise, from healthcare professionals' experiences at nursing homes, old people often have poor mental health as few self-health perception and self-esteem beside depression (Zeinab, A. et al., 2012). Reminiscence program helps geriatric peoples accepting their current life after reviewing their past experiences including loss and crises then finding it meaningful. Consequently, it prevents or even alleviates their depressive symptoms, increases their self-esteem, their satisfaction and their coping with crises and subsequently, strengthen lines of defense and resistance to promote health. Unfortunately, nursing interference role is limited to psychological counseling therapy only and not the holistic physical assessment of elderly to meet their holistic health care needs. Nurses and other health care professional should educate elderly about health promotion such as adequate sleep, healthy diet, exercise, stress management and risk factors of depression and loneliness, reflecting positively on their lives quality due to functional and psychosocial improvement **(Rady & Ebied, 2018)**.

Aim of the study:

The aim of our study was to estimate the impact of reminiscence program on depressive symptoms, feeling of loneliness and quality of life among institutionalized geriatric people in Egypt.

Research hypotheses:

H1: The old people who participate in the reminiscence program will attain lower depressive symptoms scores in post-test than in pre-test.

H2: The old people who participate in the reminiscence program will attain lower level of loneliness scores in post-test scores than pre-test.

H3: The old people who participate in the reminiscence program will attain higher quality of life post-test scores than pre-test scores.

Subjects and Methods

Research Design:

A quasi- experimental (one-group pre/post-test research design was utilized in the study). Non-random method is used to assign subjects to groups. The researcher often does not have control over the treatment, but instead studies pre-existing groups that received different treatments after the fact. Control groups are not required (although they are commonly used).

Study setting:

The study was conducted in Dar El-mohafza geriatric home was randomly selected at El-Sharkia governorate (Zagazig City). It is one of the important governmental geriatric homes, providing free and paid health care to psychiatric and neurological ill patients in El-Sharkia governorate for elderly and focus on diagnosis and long-term management of patients with recurrent blackout and any psychiatric disorders. It consists of a big room in which the Psychiatrist checking and helping the patients and there is a small table in the front of the Clinic room and there is a small hall in which the patients wait. Care is provided by a multidisciplinary team of Psychiatrist, nurse, Physiotherapists and psychologist. Privacy of the Patients is well maintained. Working hours from 9.00 am to 2.00 pm.

Study sample:

Type of sample: Purposive sample

A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is different from convenience sampling and is also known as judgmental, selective, or subjective sampling **(Crossman,2020).**

Sample size:

Assuming; standard deviation S(Δ) of difference for loneliness score pre intervention and post intervention is 1.2 (pilot study).with Confidence level is 95% with power of study 80%. Sample size was calculated to be 45 elderly person **(Rosner,1995).**

number of individual (sample size)= AB/C

The standard normal deviate for(Confidence level is 95%) ($\alpha = Z\alpha = 1.960$)

The standard normal deviate for(power of study 80%) $\beta = Z\beta = 0.842$

A = 1(number) of group

B = $(Z\alpha+Z\beta)2 = 7.849$

E= Effect size =0.5
C = (E/S(Δ))2 = 0.174
AB/C = 45.21

To carry out our study, random sample of 45 elderly people was chosen according to the following criteria: aged 60 years or more, oral communication ability, awareness. The sample size used because reminiscence program requires a small group but for rather long time duration.

Tools of data collection:

The period of data was from April, 2018 to July, 2019 using sociodemographic data sheet, geriatric depression scale (GDS) and loneliness scale and quality of life scale.

1- **A structured scales was developed by researchers including:**

Personal data includes questions about age, sex, level of schooling, social status and both income resources and satisfaction.

2- **Geriatric depression scale (GDS)** was designed by (Yesavage et al., 1982) to measure depressive symptoms among elderly. in response to concerns that available depression inventories contained many items that overlapped with common aging processes (including dementia, sleep disturbance, and gastrointestinal symptoms). The scale was therefore designed to avoid somatic symptoms (such as psychomotor retardation or pain) as well as questions about believed would create defensiveness in older persons (such as those assessing sexual interest or suicidality). It is simply 30-item (yes/no)scale for each items. For scoring; "zero" score was given for “none depressive” item and 1 score for “depressive” item. Whereas, for questions 1, 5, 7, 9, 15, 19, 21, 28, 29 and 30, "zero" score was given for “yes”, and 1 score was given “no”. For questions 2, 4, 6, 8, 10-14,16-18 , 20, and 22-27,"zero" score was given for “no”, and 1 score was given “yes”. Total score ranges between zero to 30 indicating the depression score; score of 0–10 means “no depression”, 11–14 means “a possible depression”, 15-19 means “Mild depression “and above 20 means “severe depression”.

3- **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 ". The second sub-scale comprises 10 items, which reflect the sense of dissatisfaction with social relationship, responses were measured on a 3-point scale (0=indicate never, 1= sometimes, 2=often)

4- **Quality of life scale**: The Arabic version of (Ferrans, 1996) 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.

Validity

A jury of five experts, in the field of psychiatric & mental health nursing, and psychiatric medicine & nursing administration field, tested the content validity of tools (2-4) to check tool relationship and integrity and that the needed modifications were done.

Reliability

The reliability was assessed as Cronbach's alpha test. They show good level of reliability as follow: depression score (α =0.78), loneliness score (α = 0.76) and quality of life (QOL) score (α = 0.935).

Pilot study:

A quasi- experimental was done on 4 elderly clients (10% of total) to check visibility and feasibility of the items and to determine time needed to fulfill the scales. Pilot sample was included in the actual research.

Field Work

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. Researchers interviewed elderly for about 45-60 minutes.

Filling in the personal data sheet took 5 minutes, while Geriatric depression scale took 15 minutes , Loneliness scale (Version 3) took 10 minutes and Quality of life scale took 15 minutes. This technique was repeated for each elderly patients included in the study. After data collection, the researcher and a specialist in statistics carried out all necessary steps for checking completeness of data and proceeded to the scoring of the members' answers.

Data were collected from April 2019 to July 2019. Moreover, baseline assessment was done before the program implementation through the relevant selected tools (personal data questionnaire, geriatric depression scale, loneliness scale and quality of life index).

2.**Implementation phase**: it lasts from 2nd to 7th session to implement the reminiscence program with elderly. Subjects were divided into six small groups according to the baseline assessment, each group met once per week for 8 weeks. The chief subjects of the session were "it is good to know you through exploring the childhood, adolescence, and adulthood period", "memorable people", "unforgettable events", "memorable relatives and friends", "past golden years", "important life experiences", "past and present", "memory and expectations".

Program sessions:

Session 1 (Time: 30-45):

During the initial session, the researcher explained the purpose of the program, instructions followed by the exercises, the place of meeting, the timetable that was twice/week for each study group and information about the booklet that would be delivered after sessions to add any information recommended and sharing memories and greeting each other.

- **Session 2 (Time: 30-45):**

The focus of this session was providing an overview about aging, developmental changes of aging and the most important health, psychological and

behavioral problems of the elderly and how to deal with them and increasing participant awareness of their feelings and helping them to express their feelings.

- **Session 3 (Time: 30-45):**

The focus of this session was providing knowledge and training skills related to face aging & preventive programs and identifying positive relationships from their past and how to apply positive aspects of past relationships to present relationships. First, the researcher provided an overview description for each technique, then the elderly patients did these techniques in front of them and began to imitate the researcher.

- **Session 4 (Time: 30-45):**

The focus of this session was providing knowledge and training skills related to problem solving and recalling family history and life stories. First, the researcher provided an overview description for each technique, then the elderly patients did these techniques in front of them and began to imitate the researcher.

- **Session 5 (Time: 30-45):**

The focus of this session was providing knowledge and training skills about relaxation techniques and transition in life issues. First, the researcher provided an overview description for each technique, then the researcher prepared training skills for each technique and the elderly followed the instructions for each skill.

- **Session 6 (Time: 30-45):**

The focus of this session was providing knowledge and training skills about gaining awareness of personal accomplishments and identifying personal goals. First, the researcher provided an overview description for each technique, then the researcher prepared training skills for each technique and the elderly followed the instructions for each skill.

- **Session 7 (Time: 30-45):**

The focus of this session was providing knowledge and training skills about memory techniques by identifying positive strengths and goals. First, the researcher provided an overview description for each technique, then the researcher prepared training skills for each technique and the elderly followed the instructions for each skill.

3.**Evaluation phase**: (8th session) providing an overall review of the seven sessions and then a farewell and evaluate the impact of the program in the post test 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.

Ethical considerations:

The research ethics committee of the Faculty of nursing; Zagazig University approved our study with an official permission from director of nursing home. A meeting was scheduled with the director of Dar El-Mohafza geriatric 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 free to stop sharing in our experiment at any time they desire, without any negative consequences. We had written approval from all shared elderly and data were considered

confidential, using code numbers created and kept by the researchers.

Statistical data analysis:

Statistical analysis were done using the Statistical Package for Social Science, version 20 (SPSS Inc., Chicago, IL, USA). Quantitative data were expressed as the mean ± SD & (minimum-maximum), and qualitative data were expressed as absolute frequencies (number) & relative frequencies (percentage). Continuous data were checked for normality by using Shapiro Walk test. Paired t test was used to compare between two dependent variables of normally distributed variables. Wilcoxon Signed Ranks Test was used to compare between two dependent variables of non-normally distributed variables. Percent of categorical independent variables were compared using chi square test or Fisher Exact test when appropriate .Percent of categorical dependent variables were compared using Mc-nemar test. Spearman's rank correlation coefficient was calculated to assess relationship between various study variables, (+) sign indicate direct correlation also values near to 1 indicate strong correlation & values near 0 indicate weak correlation. All tests were two sided. p-value < 0.05 was considered statistically significant (Sand p-value ≥ 0.05 was considered statistically insignificant (NS).

Results:

As regard to personal data of the participants, table 1 shows that participants' age ranged between 47-79 **years,** with mean 64±5, also 62.2% were female and 60% all participants were educated.

As regard to Reasons of living at geriatric home of participants', table 2 show that, one third (33.3%) participants' living at geriatric home due to There is no one to take care of them and 17.8% left the apartment for the sons to marry in it

Concerning the depression symptoms, table 3, shows that (13.3%) of the participants had a severe level at the pre-intervention phase, while 44.4% had no depression. These were diminished at the post-intervention phase, where only 2.2% one of participant had severe depressive symptoms, whereas (68.9%) were free of depressive symptoms. Additionally, the mean depression score decreased from a pre-intervention level of 13 to a post-intervention level of 7.7. These improvements were highly statistically significant ($p<0.001$).

Table 4 concerning the loneliness symptoms, Table shows that (4.4%) of the participants had a severe level at the pre-intervention phase, while 26.7% had mild loneliness. These were diminished at the post-intervention phase, where 0% of participant had severe loneliness symptoms, whereas (37.8%) were mild loneliness symptoms. Additionally, the mean loneliness score decreased from a pre-intervention level of45 to a post-intervention level of 42.8. These improvements were statistically un-significant ($p>0.05$).

Concerning the memory problems, table 5 shows that (55.6%) of the participants had feel memory problems-them more than others at the pre-intervention phase, while only 15.6% feel memory problems infect them more than others at the post-intervention phase. As regard problem of concentrating 57.8% of participant had problem of concentrating at the pre-intervention phase fortunately diminished to (20%) at the post-intervention phase. These improvements were statistically significant ($p<0.05$).

Figure **(2):** concerning the QOL, Table shows that (77.8%) of the participants had a poor level at the pre-intervention phase. These were diminished at the post-intervention phase, where 48.9% of participant had poor QOL. These improvements were statistically significant ($p<0.05$).

Table (6) demonstrates a statistically significant positive correlation between participants' scores of depressive symptoms and loneliness score, before intervention ($r=-0.55$). Also there was statistically significant negative correlation between participants' scores of depressive symptoms and QOL score before intervention. On other hand there was statistically insignificant correlation between participants' scores of depressive symptoms and loneliness score after intervention.

Table (1) Sociodemographic and personal characteristics of elderly studied sample (n=45).

	n		%
Age			
>60	39		86.7
≤60	6		13.3
mean± SD		64±5	
Minimum-maximum		47-79	
Sex			
Male	17		37.8
female	28		62.2
education			
Illiterate	18		40.0
educated	27		60
Marital status			
single	12		26.7
married	33		73.3
Sons& daughters			
Yes	34		75.6
No	11		24.4
Occupation before retirement			
employee	37		82.3
Non	8		17.8
Income			
Sufficient	24		53.3
insufficient	21		46.7
Smokers			
non-smoker	38		84.4
smoker	7		15.6
Chronic disease			
Yes	37		82.2
No	8		17.8
Need help for daily activity			
Yes	12		26.7
No	33		73.3
Hobby			
Yes	18		40.0
No	27		60.0

Table (2): frequency distribution of Reasons of living at geriatric home of participants'

Reason of living at geriatric home	n	%
There is no one to take care of me	15	33.3
Loneliness	4	8.9
There is no inhabitant of my own	8	17.8
Avoid family problems	5	11.1
The unwillingness of the sons in my presence with them	2	4.4
leaving the apartment for the sons to marry	8	17.8
others	3	6.7

Table(3): Depressive symptom among elderly participants before and after intervention program (n=45)

	Intervention time				**Mean difference	Wilcoxon sign rank test	p
	before		after				
	no	%	no	%			
Depression level							
no depression	20	44.4	31	68.9			
possible	9	20.0	9	20.0			
mild	10	22.2	4	8.9			
severe	6	13.3	1	2.2			
mean± SD	13±6		7.7±5		5.1(39%)	4.4	0.0001
Minimum-maximum	3-30		1-20				

*Wilcoxon Signed Ranks Test **Effect of program on reduction depression score

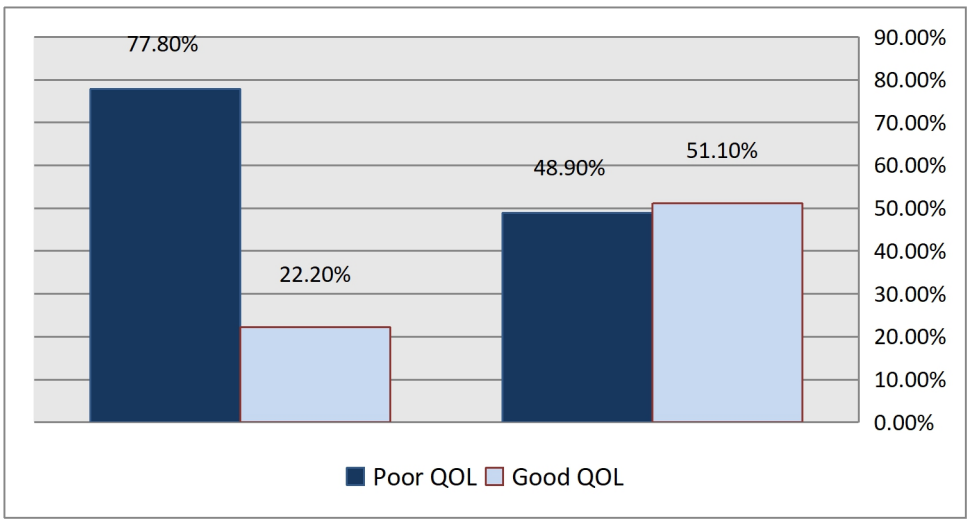
Table (4): loneliness symptom among elderly participants before and after intervention program (n=45)

	Intervention time				Mean difference	Paired t	p
	before		after				
	no	%	no	%			
loneliness							
mild	12	26.7	17	37.8			
moderate	31	68.9	28	62.2			
severe	2	4.4	-	-			
mean± SD	45±8		42.8±7		2.4(5.3%)	1.8	0.07
Minimum-maximum	28-62		27-53				

Table (5): memory problems among elderly participants before and after intervention program (n=45)

	intervention				*p
	before		after		
	no	%	no	%	
I feel memory problems infect me more than others (Q14)					
no	20	44.4	38	84.4	0.001(S)
yes	25	55.6	7	15.6	
I have a problem of concentrating (Q26)					
no	19	42.2	36	80.0	0.004(S)
yes	26	57.8	9	20.0	

*MCnemar test s=significant



Figure(2): QOL among elderly participants before and after intervention program

Table(6):Correlation matrix of participants' Depressive Symptoms score, and loneliness Score before and after intervention program (n=45).

variables	Before intervention		After intervention	
	(r)	p	(r)	p
loneliness& depression	0.55	0.001(S)	0.22	0.14
loneliness& QOL	-0.3	0.07	0.09	0.57
Depression &QOL	-0.44	0.003(S)	0.043	0.78

(r): correlation coefficient s=significant

Discussion:

It is unfortunate that depression and Loneliness are the most popular emotional disorder in elderly leading to bad consequences as disability, low quality of life, and even high mortality. Concerning characteristics of our study sample; more than three fifth had the mean age was 64±5, were female, married, educated and need no help for daily activities. More than half of them had sufficient income and More than one third of them were living at geriatric home because no one looking after them The majority of them had occupation before retirement and were nonsmokers, with chronic disease and the minority of them left the apartment for their sons' marriage.

Our results are in agreement with previous study of **(Rady & Ebied, 2018)**, who found that more than half of chosen institutionalized Egyptian elderly suffering depressive symptoms and feeling of loneliness were males with age mean 71.52±7.0. In relation to marital/social status, more than half of elderly were widowed (one third of them had no siblings).

Concerning level of education, nearly half of elderly were highly educated. The same study conducted that the majority of elderly had chronic illness.

Regarding practicing of daily living activities, more than three fourth of elderly didn't need any assistance during eating, while more than two third of them need help during bathing, two third need assistance during walking .As regards the causes of admission, more than half of the elderly were admitted to institution due to absence of caregiver and need assistance during bathroom or transferring with a wheelchair.. In relation to source of monthly income, more than two third of elderly were employed before retirement.

Similarly, **(Jo & An, 2018)** revealed that more than half of the studied institutionalized older adults were female with mean age 80.16 ±7.52, more than half of them were educated at elementary school level and the majority of female had bad health status. In contrast, **(Chiang et al., 2010)** revealed that all institutionalized aged people in their study were males at 77 years old on average, more than half were unmarried, and illiterate. Moreover, nearly half of the elderly sharing in their study have medium level of awareness health status and 59% had no economic stress.

Our current study displayed that the reminiscence program decreased levels of depression especially the severe level in our studied sample. At the pre-intervention phase, minority of the participants had a severe level, severe depressive symptoms, while nearly half of them had no depression. However at the post-intervention phase, whereas more than two third were free of depressive symptoms.

These improvements were highly statistically significant and may be because in reminiscence intervention program, aged could share with others their emotions and memories enabling their self-expression and coping with life stressors and not feeling alone. This finding was in line with several previous studies which confirmed the reminiscence positive impact on elderly in decreasing depressive symptoms and other mental disorders.

One of them, **(Musavi et al., 2017)** who reported that group integrative reminiscence therapy is looked like successful life review leading to improving mental health among the old women living in nursing home. Similarly, **(Rady & Ebied, 2018)** displayed that a statistically significant relationship was found between the educational program and geriatric depression scale, indicating that application of health promotion program for institutionalized elderly had a positive impact on alleviating the depressive symptoms.

Additionally, **(Song et al., 2014)** meta-analysis revealed that group reminiscence lessen only short-term depression relief among elderly and effectively improved self-esteem and life satisfaction. In the same way, **(Chiang et al., 2010)** exhibited that providing the reminiscence therapy to the institutionalized elderly led to a significant positive short-term effect (3 months follow-up) on depression and loneliness as a result of improved socialization and induced achievement feelings.

Regarding QOL among elderly participants before and after intervention program, the present study revealed that more than two third of the participants had a poor level at the pre-intervention phase. This ratio was lessened at the post-intervention phase, where only nearly half of participant had poor QOL and this improvement was statistically significant ($p<0.05$). In the same line, **(Jo & An, 2018)** exposed that group reminiscence program gave a positive impact on life satisfaction and death anxiety of Korean older adults in nursing homes. They added that possible explanation for this may be that reminiscence therapy supporting elderly for rebuilding their life experiences and achieving life satisfaction, by recalling previous achievements, valuable events, and positive memories.

As regards to reminiscence and loneliness, nearly one third had mild loneliness at the pre-intervention phase. However, no one had severe loneliness symptoms at the post-intervention phase, whereas more than one third had mild loneliness symptoms. Additionally, the mean loneliness score decreased from a pre-intervention level of 45 to a post-intervention level of 42.8. These improvements were statistically un-significant ($p>0.05$).

Similarly, **(Chiang et al., 2010)** confirmed that the interaction and experiences exchange among participants in the reminiscence therapy help friendships formation and group belonging sensation thus easing loneliness and isolation pain. Also, **(Sayied & Abd-elaziz, 2015)** suggested

that counseling sessions as nursing intervention succeeded to alleviate both depression and loneliness among elderly. Then again, **(Rady & Ebied, 2018)** suggested that health promotion program has improved quality of life among institutionalized elderly people and reduced level of depression and loneliness and that both were highly statistically significant correlated.

Concerning correlation between personal characteristics and other variables, the present study demonstrated that sociodemographic personal characteristics of elderly was statistically insignificantly correlated with their other variables ($p>0.05$). In the same line, **(Chiang et al., 2010)** showed that no significant difference between the experimental group and the control group in the studied demographic variables, as educational level ($p=0.44$), marital status ($p=0.71$), self-perceived health status ($p=0.55$), economic status ($p=1.00$), and the number of chronic medical illnesses ($p=0.51$).

Regarding correlation between pre- and post-program and according to geriatric depression scale, loneliness scale, we found a statistically significant positive association between total mean score of pre- and post-test. This result was in agreement with findings of **(Dastbaaz; et al., 2014),** that there is a significant difference between the mean scores of the experiment and control group. They found that elderly often remember their sad memories and consequently feeling dissatisfaction and negativism. Though, reminiscence program aided aged expressed their feelings, providing them with self-confidence thus social support groups decrease loneliness among elderly.

Additionally, **(Manuela Dias et al., 2015)** found that the old people associations and social centers increase elderly social interaction, reduce the level of loneliness from more than two third to nearly half. Authors also added that any adopting strategies to reduce the social and emotional isolation contribute to increasing of social interaction and diminishing of lonely sensation, improving of the quality of life in the elderly community.

Conclusion

Our study concluded that application of reminiscence program for elderly had a positive impact on reducing the depressive symptoms and loneliness level and consequently improving the quality of life among elderly

Recommendations:

We provide the following suggestions according to our present study findings;

1.Geriatric homes should apply reminiscence activities and supportive environment for gaining self-acceptance, confidence and creation.

2. A specialized gerontological health nurse should be recruited in long term care facilities in Egypt.

3.Geriatric clubs staff should trained dealing with elderly and helping them to self-expression and coping.

4.Recurrence of this study concept but on large scale with a larger sample size in various geographic areas to expand the outcomes.

5.Further psychosocial health education interventions should be designed to help psychologists and nurses beating the depression and loneliness,

ameliorating the life quality of institutionalized elderly.

Conflict of interest

There were no conflicts of interest.

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References:

Abd El-Aziz Elsayad, N. S., Abd El-Hameed, H. S., Mohamed Abd EL-Aal, E., & Abd Elrazek Mahmuod, A. (2017). Quality of Life of Elderly People with Peptic Ulcer in Benha City. Egyptian Journal of Health Care, 8(2), 86–100. https://doi.org/10.21608/ejhc.2017.44925

Bektaş, H., Körükcü, Ö., & Kabukcuoğlu, K. (2017). Undercover fear of elderly people in nursing homes: Death anxiety and depression. Journal of Human Sciences, 14(1), 587. https://doi.org/10.14687/jhs.v14i1.4268

Bulechek, G. M., & McCloskey, J. C. (1995). Nursing interventions classification (NIC). Medinfo. MEDINFO, 8 Pt 2, 1368. https://doi.org/10.1097/00006216-199317030-00016

Chiang, K. J., Chu, H., Chang, H. J., Chung, M. H., Chen, C. H., Chiou, H. Y., & Chou, K. R. (2010). The effects of reminiscence therapy on psychological well-being, depression, and loneliness among the institutionalized aged. International Journal of Geriatric Psychiatry, 25(4), 380–388. https://doi.org/10.1002/gps.2350

Crossman,A.(2020).Purposive sample.Available at : https://www.thoughtco.com/purposive-sampling-3026727.Accessed on 20/11/2020.

Dastbaaz; A., Seyyed-Hadi, Y., Azkhosh, M., & Shoaee, F. (2014). The Effect of Group Counseling "Narrative Therapy" to reduce Depression and Loneliness among older women. 12(20), 11–15.

Ferrans, C. E. (1996). Development of a conceptual model of quality of life. In Scholarly inquiry for nursing practice (Vol. 10, Issue 3, pp. 293–304). https://connect.springerpub.com/content/sgrsinp/10/3/293

Jo, K. H., & An, G. J. (2018). Effects of a group reminiscence program on self-forgiveness, life satisfaction, and death anxiety among institutionalized older adults. Korean Journal of Adult Nursing, 30(5), 546–554. https://doi.org/10.7475/kjan.2018.30.5.546

Manuela Dias, Carla Silva, Ricardo Dias, & Helena Oliveira. (2015). Intervention in the Loneliness of the Elderly—What Strategies, Challenges and Rewards? J. of Health Science, 3(2), 71–80. https://doi.org/10.17265/2328-7136/2015.02.003

Musavi, M., Mohammadian, S., & Mohammadinezhad, B. (2017). The effect of group integrative reminiscence therapy on mental health among older women living in Iranian nursing homes. Nursing Open, 4(4),

303–309. https://doi.org/10.1002/nop2.101

Rady, H. E. A. E. A., & Ebied, E. M. E.-S. (2018). Impact of a Health Promotion Educational Program on Quality of life , Depressive Symptoms and Feeling of Loneliness among Institutionalized Egyptian Elderly. Saudi Journal of Nursing and Health Care, 6186, 1–14.

Rosner B.(1995): Fundamentals of Biostatistics. 4th ed. Duxbury Press;. P.221.

Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. Journal of Personality Assessment, 66(1), 20–40.

Sayied, N. E., & Abd-elaziz, N. M. (2015). Effect of Counseling Sessions as a Nursing Intervention on Depression and Loneliness among Elderly at Assiut City. IOSR Journal of Nursing and Health Science (IOSR-JNHS), 4(6), 16–22. https://doi.org/10.9790/1959-04661622

Song, D., Shen, Q., Xu, T. Z., & Sun, Q. H. (2014). Effects of group reminiscence on elderly depression: A meta-analysis. International Journal of Nursing Sciences, 1(4), 416–422. https://doi.org/10.1016/j.ijnss.2014.10.001

Tarugu, J., Pavithra, R., Vinothchandar, S., Basu, A., Chaudhuri, S., & John, K. R. (2019). Effectiveness of structured group reminiscence therapy in decreasing the feelings of loneliness, depressive symptoms and anxiety among inmates of a residential home for the elderly in Chittoor district. International Journal Of Community Medicine And Public Health, 6(2), 847. https://doi.org/10.18203/2394-6040.ijcmph20190218

World Health Organization (WHO). (2017). WHO | 10 facts on ageing and health. WHO; World Health Organization.

Yesavage, J. A., Brink, T. L., Rose, T. L., Lum, O., Huang, V., Adey, M., & Leirer, V. O. (1982). Development and validation of a geriatric depression screening scale: A preliminary report. Journal of Psychiatric Research, 17(1), 37–49. https://doi.org/10.1016/0022-3956(82)90033-4

Zeinab, A., O., Khalil, E. A., Magedy M., A., & Naglaa, M. G. (2012). The Effect of Reminiscence on Self-Esteem, and Depression among Elderly People. Journal of American Science, 8(4), 53–61.