Effect of Life Review Intervention on Psychosocial Outcomes Among Older Adults

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Abstract

Background: life review is a mental process in which older adults recall and evaluate life experiences and can help them to find meaning in one's accomplishment, positive outcome of the life review process leads to the development of psychosocial wellbeing. Aim: This study aimed to determine the effect of life review intervention on the psychosocial outcomes among older adults. Setting: The study was conducted in five residential homes representing five sectors in Greater Cairo east, west, middle, south, and north. Subjects: a purposive sample of 60 older adults from the mentioned setting. Tools: Three questionnaires were used: 1) An interview questionnaire to assess demographic characteristics and physical health assessment among subjects 2) Psychological outcomes that measured by Ego-integrity Scale, a meaning in life Questionnaire, Accepting the Past Scale and Flourishing Scale, 3) Social outcomes which measured by social participation Scale. **Results:** The study results showed that there were significant differences between the 1st and the 2nd assessment in the three scales of the psychological outcomes; the mean scores of ego-integrity, meaning of life, accepting the past were changed from 39.30, 35.55, 61.48 to 49.714, 51.79, 80.626 respectively at p < 0.05. Furthermore, a significant difference was observed in the social participation scale after the life review intervention; the mean score changed from 30.99 to 39.75 at p <0.05. Conclusion: The implementation of life review intervention sessions had a positive effect on the improvement of psychosocial outcomes for older adults in which they submitted higher scores on psychosocial scales after the life review intervention. Recommendation: the current study recommended that psychiatric/ Mental Health and Community Health Nursing should provide training for formal and informal caregivers of older adults to apply life review as a part of older adults' management protocol.

Keywords: Life review- psychosocial- outcomes- older adults

Introduction

Aging is an inevitable occurrence and older adults are becoming increasingly important all over the world. Among the world's population, 12.3% were in the age group at or above 60 years, and by 2050, this percentage is expected to rise to 21.5%, with an increase to beyond 32.8% in developed areas. In Egypt, old age is supposed to begin at age 60, and this group represents 7.2% of the population. The number of older adults in Egypt is expected to rise by 10.9% by 2026 (Aly, Hamed, & Mohammed, **2018).** The ever-increasing population of older adults is one of the most challenging issues in the domains of health and well-being. Considering the great urgency of this issue, appropriate healthcare programs must be created and applied for this age group to improve their psychosocial health and wellbeing (El-Sherbiny, Younis&Masoud, 2016). One of the approaches to improving the well-being of older adults is life review intervention (Keisari, & Palgi, 2017).

Life review intervention refers to a one-toone interview to facilitate the older adult's progressive recall of memories of the experience to find meaning in and achieve resolution of one's life. The concept of life review was first introduced by Butler in 1963 who defined life review as a natural event in which an individual recalls his/her past experiences, evaluates, and analyzes them to achieve emotional, psychological, social, and spiritual wellness of older adults (KAZEMIAN, 2012). life review In intervention, the older adults have forgotten, but influential, experiences are revealed; their negative experiences are analyzed logically, and their positive experiences are discussed to make them feel useful and important again. Both unresolved conflicts and pleasurable experiences are recalled, the life experiences are then evaluated and reframed which consequently affects psychosocial outcomes. Psychological outcomes, such as finding meaning in life, enhancing ego integrity, accepting the past, and more psychological flourishing (Sharif, Jahanbin, Amirsadat, & Moghadam, 2018).

Meaning in life is a defining feature of psychological and mental health. Meaning in life has been defined as having goals in life and a sense of directedness and feeling regarding the person's present and past and holding a belief that gives life purpose, as well as having aims and objectives for living. When older adults are asked to identify characteristics of a meaningful existence, they report aspiring and goals, doing good for others, knowing that they are needed and wanted by others, and having a sense of accomplishment. If a person looks upon his or her life as having been meaningful and fulfilling, despite the hardships and failures, then he will develop ego integrity (Zhang, et al., 2019).

Ego-Integrity is a feeling of "coherence and entirety" that is achieved by remembering the past and accepting one's life cycle as unique, in addition to accepting the changes (**Kleijn et al.**, **2016**). According to Erikson's theory, meeting these challenges is important for psychological well-being in later life. Erikson also defined ego integrity as a situation in which a person feels satisfied because of a belief that she/he lived his/her life to the fullest. (**Krause & Rainville**, **2020**), Ego integrity, according to Erikson (1963), can be seen in individuals who are concerned with issues surrounding aging, integrating one's life experiences, with making sense of life (**James, & Zarrett, 2006**).

The goal of every individual is to review their past life and derive meaning from both positive and negative events while achieving a positive sense of self. Achievement of the ego integrity results, in feeling whole, complete, and satisfied with their achievements, a sense of self-worth, and accepting the self and the past (Lind, Bluck, & McAdams, 2021). Accepting the past is mostly studied with aged individuals, accepting the "past" requires remembering the past experiences during the process of life review. During accepting the past process, individuals acknowledge that what they have experienced in the past helps them to create a coherent sense of self, and this makes it easier to find meaning in life. Trying to accept the past and find meaning in life contributes significantly to the psychological well-being of older adults (**Durmuş, 2019**).

Psychological wellbeing implies an optimal state of psychological and mental health, in which the older adults feel and function positively, enjoy good mental and social health and resilience in life's vulnerabilities and changes, as well as report higher levels of ego involvement. meaning integrity. in life. healthier relationships, and acceptance. (Ruissen, et al., 2020). Psychological wellbeing showed a strong association with social integration, social participation, and social support (Nojabaee, et al, 2018). Social support and social participation comprise the aspects of buffering stress and basic social need of humans for a sense of belonging, affection, identity, satisfaction, security, approval, and esteem among individuals or groups. Social support refers to the resources and accesses that support the significant values as shared by individuals for the interaction with others. Positive and supportive relationships with family and friends, who can listen and help in the event of problems, have a beneficial effect on maintaining psychological health (Ilyas, Shahed, & Hussain, 2020).

Life review has been widely used among older people and demonstrated a reduced feeling of hopelessness, increased feeling of meaningfulness of life, and accepting the past. positive outcome of the life review a intervention leads to the development of ego integrity, finding meaning in life and the acceptance of one's experiences with life, both of which are components of psychological and social well-being. Hence, it's important to the psychiatric and community mental health nurses to implement life review intervention for older adults to enhance their psychological (Sutipan, and social outcomes Intarakamhang, & Macaskill, 2017).

Significance of the study

In Egypt, the older population had reached 6.5 million 3.5 million males and 3 million females, according to the Central Agency for Public Mobilization and Statistics (Abd Allah, Mahmoud, & Serea, 2021). Aging is a major present and future challenge. So, considering the needs and issues of individuals at this life stage is a social necessity. Hence, it's important for psychiatric and community health nurses to develop and implement effective psychological interventions to enhance the psychological and social wellbeing of older adults and a life review is a promising intervention to be effective in improving psychosocial outcomes among older people. These psychosocial outcomes can be operationally defined in terms of ego-integrity, finding meaning in life, accepting, and integrating the positive and negative past experiences, psychological wellbeing, social and and activities participation.

Aim of the Study:

The aim of this study was to determine the effect of life review intervention on psychosocial outcomes among older adults through the following:

- 1- Assess the psychological outcomes of older adults (Ego-integrity, Accepting the past, Meaning in life, and psychological wellbeing).
- 2- Assess the social outcome of older adults (social activity and social participation)
- 3- Develop and implement life review intervention sessions for older adults
- 4- Evaluate the effectiveness of the implementation of life review intervention on psychosocial outcomes of older adults under study.

Research Hypothesis:

Older adults who will receive the life review intervention sessions will have better outcomes on their posttest scores regarding psychological (Ego-integrity, Accepting the past, Meaning in life, and psychological wellbeing), and social outcomes (social activity and social participation).

Subjects and Methods

Research design:

A quasi-experimental design was utilized to accomplish this study's aim

A- Setting:

The study was conducted in five residential homes. these homes are geographically representing five sectors in the Greater Cairo as east, west, middle, south, and north as following:1- Dar Saydat Miser (east Cairo, total no. 36), 2- Bait Set El Habayeb (west Cairo, total no. 21), 3- Dar Amir El Shohada (middle Cairo, total no. 11), 4-Dar Saman El Sheik (north Cairo, total no. 25), 5-Dar El Kalema El Tayeba (south Cairo, total no. 20).

B- Subjects:

A purposive sample of sixty older adults was recruited for the conduction of this study from the above-mentioned settings according to certain inclusion criteria.

Inclusion Criteria: older adults above 60 years and with both genders, have no severe cognitive impairment or mental disorders and can respond to questions, can perform activities of daily living, not suffer from complete impairment of hearing loss to be able to listen, agree to be a part of the study sample and don't attend a similar program.

Sample size: Based on the total number of older adults in the previously mentioned settings (113) as well as the inclusion criteria. The sample size was 60 older adults (21 from Dar Saydat Miser, 11 from Bait Set El Habayeb, 5 from Dar Amir El Shohada, 12 from Dar Saman El Sheik, 11 from Dar El Kalema El Tayeba) to achieve a power of 95% and a level of significance of 5% (two-sided), assuming effect size 0.45 and SD 1.24.

$$n = \left(\frac{Z_{1-\alpha/2} + Z_{1-\beta}}{ES}\right)^2$$

 Z_{α} = Standard normal deviate for α = 1.9600. Z_{β} = Standard normal deviate for β = 0.8416. B = $(Z_{\alpha} + Z_{\beta})^2$ = 7.8489. $C = (E/S_{\Delta})^2 = 0.1317.$

N = B/C = 59.5972.

The N thus calculated is rounded up to the next highest integer to give the group size.

 $n = (\frac{96+0.84}{0.1317})^2 = 59.5972 \approx 60$ older adults. (Rosner, 2016).

C- Tool of data collection:

- I. A structured interview questionnaire was developed by the researchers in a simple Arabic language after reviewing the related literature (Barakat, 2008; Selva, Postigo, Segura, et al, 2012; Sharif, et al., 2018; DURMUŞ, 2019). It was used to assess the following:
 - 1. Subjects' demographic characteristics It included descriptive data regarding the elderly's age, sex, number of children, marital status, occupation, level of education, source of income, and income satisfaction. It also assessed the older adult's social relations such as persons regularly visiting, visiting himher relatives/ friends.
 - 2. Older adults' Physical Health Assessment to identify related problems, this includes cardiac, gastrointestinal, bone, respiratory, urinary, endocrine, hearing, or vision problems.
- II. Assessment of Psychological outcomes: it was assessed through four different scales that are translated into the Arabic language by the researchers and included:
 - 1. Ego-integrity scale: it was a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) developed by Ryff & Heincke, (1983). This tool is based on Erikson's theory of development (Erikson 1963) assessed the older adult's ability to adapt to his/ her success and difficulties as well as acknowledged that own's past life as inevitable, appropriate, and meaningful. The tool consisted of 16 items (9 negative items and 7 positive items). The positive items (1, 2, 3, 5, 8, 10, 15) are calculated from a 1-5 liker scale while the negative items (4, 6, 7, 9, 11, 12, 13, 14, 16) are scored reverse. The total scores of ego integrity categorized \geq

53=low, 54-67=moderate, and 68-80 high level of ego integrity.

- 2. Meaning in Life Ouestionnaire (MLO) was developed by Steger, Frazier, Oishi& Kaler (2006) to measure two subscales of meaning in life among subjects: the first subscale is the presence of Meaning (the extent to which life has meaning among subjects in items 1, 4, 5, (6, 9), the second subscale is the search for meaning (the extent to which the subjects drive to look for the meaning and be aware of their lives in items 2, 3, 7, 8, 10). Example of item related to the presence of meaning subscale: "My life has a clear sense of a purpose." Meanwhile, the example of item related to the search for meaning subscale assesses the degree of individuals' drive and orientation toward finding meaning in life The questionnaire consisted of 10 items in a 7-point Likert scale ranging from 1 True) to 7 (Absolutely Untrue). Scoring systems: all items are scored from 1 to 7 except item 9 has reverse scoring. The questionnaire has total scores from 10-70; the high scores indicate an increased sense of meaning in life.
- 3. Accepting the Past Scale (ACPAST) was developed by Santor and Zuroff (1994) based on Erikson's theory of development (ego integrity versus ego-despair in older adults). It assesses how much the person receives from their past as related to acceptance and satisfaction. this scale consists of 16 items in a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7). The scale has two subscales as positive past representation (7 items includes 2, 5, 8, 11, 13, 15, 16) and negative past representation (9 items includes 1, 3, 4, 6, 7, 9, 10, 12, 14). Example of item related to positive past representation: "Generally, I feel comfortable talking about things I have done in the past". Example of item related to negative past representation: statements such as "I feel anger about some of my childhood experiences". Scoring system: the total scores of all items ranged from 16-112 with higher scores indicating greater ability to accept the past while

lower scores indicate difficulty in accepting the past.

- 4. Older adults' psychological wellbeing was measured by using 8 items of the Flourishing Scale (FS) which was developed by **Diener et al. (2009).** It evaluates the subject's perceived wellbeing in relationships, self-esteem, purpose, and optimism. All items have positive responses on a 7-point Likert scale, ranging from "strongly disagree (1) to strongly agree (7). Scoring system: the total scores of all items ranged from 8-56. The higher scores indicate a person with a higher level of psychological wellbeing.
- III. Social Participation Scale was adapted from the Elderly Activity Inventory Questionnaire (Lefrançois, Leclerc, Dubé, Hamel, & Gaulin, 2001) . This scale was used to assess older adults' engagement in activities such as shopping, volunteering work, Taking lessons or courses. The responses of each activity included as follows: (almost every day= 20, at least once a week= 6, at least once a month= 2, less than once a month = 1, and never = 0). Based on steps applied by Richard, Gauvin, Gosselin& Laforest, (2009), the answer of each activity was turned into several days per month as well as the overall scores were summed and divided into quintiles.
- IV. A structured Life Review Intervention sessions for Older Adults: was prepared by the researchers based on the related literature (Haight, 2007; Haight& Haight, 2007; Gonçalves, Albuquerque& Paul, 2009; Maercker& Bachem, 2013; Selva, Postigo& Segura, et al, 2012; Clayton, Kleijn, Post& Witte et al, 2018). The intervention sessions consisted of 14 sessions (from one to two hours each) in seven weeks (2 sessions/week)

Tools validity and reliability:

The tools were prepared and designed for data collection. Then the standardized tools were translated into Arabic language and backtranslation into the English language was done by language experts, and any discrepancies found between the back translation and the original tools were taken as an indication of a translation error.

Content Validity:

The content validity was ascertained by a group of 3 experts from the psychiatric/mental health nursing department and 2 experts from the Community Health Nursing Department, Faculty of Nursing, Ain shams university. To ensure relevance. clarity, completeness. simplicity, and applicability of the study tools. Expert's responses were either agreed or disagreed or agreed with modifications for the face and content validity. about 87% of the experts agreed with the proposed tool and accordingly, the required modifications were done.

The Reliability:

It was statistically tested by Cronbach Alpha test; 0.92 for the interviewing questionnaire, 0.87 for an Ego- integrity scale, 0.93 for Meaning in Life Questionnaire (MLQ), 0.91 for Accepting the Past Scale (ACPAST), 0.93 for Flourishing Scale, and 0.90 for Social Participation Scale.

Ethical considerations

The ethical research considerations in this study included the following: The research approval obtains from the ethical committee in the faculty of Nursing, Ain Shams University as well as from the directors of the geriatric homes in the previously mentioned settings. The researchers explain the objectives of the study to the subjects. The researchers maintain on anonymity and confidentiality of subjects. Subjects are allowed to choose to participate or not to participate, and they have the right to withdraw from a study at any time without penalty.

Pilot study

A pilot study was performed before conducting the actual study. It was applied to 6 older adults (10%). The pilot study was done to ensure clarity, applicability, and feasibility of the conduction of study tools. Based on the findings, modifications and omissions of unnecessary details were done. those subjects were excluded from the study sample.

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Fieldwork

Data collection and the implementation of the life review interventions program were carried out in the period from July 2019 to February 2020 throughout four consecutive phases as follows:

- 1- Assessment Phase: Data were collected 2 days of the week (Saturday and Thursday) for each geriatric home at morning shifts. Each subject was interviewed and assessed two times; before the life review program to obtain baseline data and after implementing a program to assess the effectiveness of implementing the program on the subjects. In the first week for each geriatric home, the researchers stayed with the older adults to establish trust relationships and gain their confidence as well as their cooperation in responding to the interview sheet and scale implemented in the study. Each subject was interviewed individually. Tools of data collection were filled in by the older adult by researchers' assistance if needed according to their level of education and their abilities to comprehend. Each subject spent 30-40 minutes completing the tools.
- 2- Preparation phase: Grounded on a comprehensive review of related literature and the assessment phase, life review intervention program sessions were prepared and organized including objectives, outlines, content, teaching methods, number of sessions, timing, explanations, and booklet, examples. The life review structured questions, program sessions, and plan were revised by a jury of 5 experts, 3 from psychiatric/mental and 2 from community health nursing field to confirm its validity for covering, representative and accuracy of knowledge, as well as their relevance to studies and theories supported the details of the program.
- **3- Conduction phase:** Developed structured life review intervention program content and questions were applied by the researchers. Each older adult has 14 sessions through three consecutive phases:

- (1) The Initial phase (one session) is in which the older adults identify the essential information about life review and its importance. The session of the initial phase for building mutual trust and rapport. The researchers gave information about the life review, benefits, and examples in simple Arabic language, and sentences were selected depending on the subject's level of information and level of their cognitive abilities. The researchers oriented the subjects about the number of their schedule. sessions. and time duration. In addition, the researchers asked each subject to bring photos albums, letters, gifts, historical items, significant objects (antiques, or clothing), and diaries to discuss their lives' stages and experiences. The researchers ensured the privacy and confidentiality of the subjects' information.
- (2) Working phase (12 sessions) through which the researchers met each older adult and ask structured questions in different stages of his/her development. Early Childhood, Marriage and new familv Childhood transition to schooldays, Family and housing, Adolescent. Traumatic experiences, working life Adulthood. and achievements, Childbirth until separating from family, during this phase, the researcher therapeutic used the communication techniques during sessions such as acceptance, empathy, caring, responsiveness, active listening, encouraging to build trust, and provide support especially when the subjects talk about their traumatic experiences. The researchers set structured questions for each period of a person's life, from childhood to retirement age until now.
- (3) **The final phase** (one session) was for the completion of the structured life review questions and identifying the subject's feedback about the program. The researchers summarized the provided content, completed questionnaires as well as asked the subjects about their satisfaction with the program.

Session no.	Торіс	Description and Questions examples
1.	Introduction	- Simple information about life review
2.	Early Childhood Experience	Experience with early childhood asWhat is the first thing you remember in your life?
3.	Childhood to schooldays Experience	 Tell me about your parents Experience about Childhood to schooldays Experience as what was lifelike for you in your twenties and thirties?
4.	Family and housing experience	What was your home like?Did you have unpleasant experiences as a child?
5.	Adolescent and transient developmental changes	- Tell me about your activities as a teenager - Who did you want to be like?
6.	Traumatic experiences	- What was the hardest thing you had to face in your life? Describe
7.	Adulthood Experience	- What was lifelike for you in your twenties and thirties?
8.	Working life and achievements	What type of career did you pursue?Tell me about your work and achievements
9.	Marriage and new family transition	- Did you marry? - How did you meet your spouse?
10.	Childbirth until separating from family	Did you have children?Tell me about your child marriage
11.	Middle age (from 50 to retirement)	What are the things to be done at this stage?Can you describe the loss of your parents?
12.	Retirement age until present	What was your most significant accomplishment?What were some of the difficulties you encountered?
13.	Spirituality	- How have you experienced God's mercy in your life?
14.	Summary	What has been most satisfying about your life?What else would you like to tell me about your life?

The (1): Sessions were conducted in 7 weeks as follows in the table:

Data analysis

Data was computerized, coded, analyzed, and tabulated. Statistical Packages for the Social Sciences (SPSS) version 21.0 for Windows and Microsoft Excel Spread Sheet Package (Office 2010). Significance tests were used; mean and standard deviation, as well as percentage, frequency, Pearson Correlation Coefficient for testing the relationship between variables, T-test, and P-value, were used for significance.

Results

Table (3): shows the sociodemographic characteristics of the studied subjects. The age of the subjects ranged from 60 up to 80 years with a mean of 76.331 ± 7.4321 years. 46.7% among subjects their age from 70-80 years followed by 35% who their age under 70 years. Also, 61.7among them were females. 80% of the studied subjects were widowed and 78.3% of them have children. Concerning the educational level, 30% of subjects had school education and 28.3% were highly educated.

The governmental occupation is prevailing among studied subjects which represent 60%. Additionally, 86.7% have a pension income and 35.7 among them have unsatisfactory income. Concerning the personal visits of the older adults, 68.3% were not visited and 71.1% among them did not visit their families. Regarding the duration of stay in geriatric homes, 61.7%) was admitted for 3 to less than 4 years

It is noticed from **table (4)** that, the most physical health problems among studied subjects were bone/ joint problems, hyperglycemia & hypertension, they represent 90%, 73.3%, and 71.7% respectively.

Table (5) revealed apparent positive changes in the studied subjects' responses in relation to ego-integrity items scale, 1, 2, 3, 4, 5, 9, 10, 11, 14, 15, 16 in the 2nd assessment (T teste= 4.534, 4.414, 4.030, 4.228, 4.415, 2.435, 2.227, 3.435, 4.227, 4.227, 4.445, 4.435 and P Value= 0.01, 0.03, 0.04, 0.05, 0.01, 0.04, 0.02, 0.03, 0.01, 0.03 respectively). A statistically significant difference was observed between

pre and post assessment in the total scale (T teste = 4.125 and P value = 0.04).

Table (6) showed clear improvements in subjects' responses regarding the meaning in life questionnaire in the post-assessment. In the first assessment as baseline data, the subjects attain low scores in terms of the presence of meaning subscale (T teste= 5.70456 and P value= 0.03) as well as The Search for meaning Subscale (T teste= 4.51872 and P value= 0.02). This can reflect a statistically significant difference between the 1st, 2nd assessments for the total scale in favor of the studied subjects (T teste= 5.11164, P value= 0.02).

Table (7) illustrated that older adults' can perceive their experiences more positively after reviewing their past experiences. The mean scores improved after their post-assessment in both positive and negative past representations subscale (T teste= 3.9748, 3.8170 and P value= 0.02, 0.04 respectively). So that. A significant increase in the total scale after the program T teste= 3.8959 and P Value= 0.04.

Table (8) Although there was no statistically significant difference between 1st and 2nd assessment regarding the Flourishing scale (T teste= 3.5742 and P Value= 0333), there were significant changes in the mean scores of items 1, 3, 6 (T teste = 3.2212, 4.2421, 3.4351 and P value= 0.05^* , 0.04, 0.03 respectively).

Table (9): showed that there were significant differences among studied subjects regarding the means scores of social participation scale after the life review intervention program. It can be meant that the older adults became more aware of the value of social activities and participation. Some social practices are improved such as going shopping. going to restaurants, attending cultural places, attending lessons (mean changed from 3.25, 3.20, 3.65, 3.45 to 4.18, 4.14, 4.81, 4.70 respectively). Therefore. there was a statistically significant difference in the total scale; the studied subjects improved their responses (mean changed from 30.99 to 39.75and P Value= 0.05).

Table (10): studying the relationship between total subjects' scores in the social outcomes and the four scales of psychological outcomes (Ego-Integrity Scale, Meaning in Life Questionnaire, Accepting the Past Scale, and Flourishing Scale) after the life review intervention program. There is a positive relationship between the two variables, Pearson's correlation test = r (after) = 0.774, 0.538, 0.587, 0.792, respectively. This means that older adults who attain higher scores of psychological outcomes will have greater scores of social activities and participation.

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Item	No no = 60	%
Age (years)	110 - 00	
<u>Age (years)</u> 60- <70	21	35
70-<80	28	46.7
80 +	11	18.3
	11	10.5
$Mean \pm SD = 76.331 \pm 7.4321$		
Gender Female	37	(17
	23	<u>61.7</u> 38.3
Male	23	38.3
Single	6	10
Divorced	4	6.7
Married		3.3
Widow	2	<u> </u>
	48	80
Having children	12	21.7
No Yes	13	21.7
	4/	78.3
Level of education	11	10.2
Illiterate	11	18.3
Read & Write	14	23.3
School education	18	30
High education	17	28.4
Type of the previous occupation		<u> </u>
Governmental	36	60
Private	10	16.7
Housewife	14	23.3
Source of income		
Pension	52	86.7
Children	8	13.3
Income satisfaction		
Yes	28	46.3
No	32	53.7
Persons regularly visiting the elderly:		
None	32	68.3
Children	15	25
Relatives/ friends	13	21.7
Older adult visiting		
None	43	71.7
Children	11	18.3
Relatives/ friends	6	10
Duration of residing		
Less than one year	3	55
1-<2	20	33.3
3- <4	37	61.7

 Table (2): Subjects' Demographic Characteristics (no=60)

 Table (3): Physical Health Assessment among Older Adults under Study (no= 60)

Item	No no = 60	%
Physical health problems:		
Cardiac	33	55
Gastrointestinal	23	38.3
Bone/ joint	54	90
Respiratory	7	11.7
Hyperglycemia	44	73.3
Urinary	17	28.3
Hypertension	43	71.7
Vision	37	61.7
Mild hearing problems	22	36.7

Table (4): Comparison of Ego-Integrity Scale Before and After the Life Review Inter	ervention amor	ıg
Studied Subjects (n=60).		

Studied Subjects (n=60).		fore	After		T-	Р-
Ego-Integrity Scale	Mean	SD	Mean	SD	test	value
1. If I had to do it all over again, there are very few things about my life that I would change.	3.17	0.64311	4.38	0.53351	4.534	0.01**
2. I feel generally contented with what I have accomplished in my life.	3.53	0.61172	4.83	0.41967	4.414	0.03*
3. I wish my life was just beginning so I could avoid many of the mistakes I made earlier in my life.	3.27	0.64432	4.40	0.50321	4.030	0.04*
4. In general, I would say I have few regrets about my past life.	3.25	0.53667	3.98	0.50394	4.228	0.05*
5. All in all, I am comfortable with the choices I made regarding my life's work.	3.60	0.59403	4.76	0.42652	4.415	0.01**
6. I still feel angry about certain of my childhood experiences.	4.15	0.50169	4.61	0.49030	3.455	0.11
7. If I had had just a couple of luckier breaks, my life would have turned out much differently.	2.45	0.50169	3.10	0.48402	3.627	0.12
8. My life has been fulfilling, and I am not frightened by the thought of death.	4.20	0.49403	4.76	0.42652	3.531	.0.11
9. If I could turn back the clock, there are many things I would do differently.	2.45	0.50449	3.61	0.49030	2.435	0.04*
10. Reading old diaries and letters usually brings more pain than pleasure.	2.45	0.50169	3.23	0.48402	2.227	0.02*
11. It doesn't bother me to think about goals I haven't reached and probably never will.	2.60	0.41403	3.36	0.42652	3.435	0.03*
12. One of my greatest disappointments is that I have not been able to do more traveling.	2.60	0.42413	2.76	0.42652	3.635	0.24
13. I often wish I had been born during a different period of history.	3.45	0.6016	3.91	0.59031	3.647	0.17
14. There are many people whose life I would prefer to my own.	2.45	0.50172	3.60	0.58402	4.227	0.02*
15. When I consider the ups and downs of my past life, they somehow fit together in a meaningful way.	3.20	0.4922	4.76	0.52452	4.445	0.01**
16. There are some disappointments in life I will never be able to accept.	2.45	0.50169	3.21	0.47032	4.435	0.03*
Total	39.30	0.56349	49.714	0.4562	4.125	0.04*
*= $p < 0.05$ ** = $p < 0.01$ *** = $p 0.001$						

 Table (5): Comparison of Meaning in Life Questionnaire Before and After the Life Review

 Intervention among Studied Subjects (n=60).

Meaning in Life Questionnaire	Before		After		T-test	Р-
Meaning in Ene Questionnall t		SD	Mean	SD	1-test	value
The Presence of Meaning (Subscale)	17.536	0.653377	26.377	0.5903	5.70456	0.02*
1. I understand my life's meaning.	3.75	0.71182	5.61	0.51967	5.4742	0.03*
2. My life has a clear sense of purpose.	3.27	0.70432	5.10	0.60321	5.0400	0.01**
3. I have a good sense of what makes my life meaningful	3.26	0.53667	5.58	0.60394	6.2383	0.01**
4. I have discovered a satisfying life purpose	3.80	0.69403	5.76	0.62652	6.4351	0.01**
5. My life has no clear purpose	3.45	0.60169	4.31	0.59030	5.3352	0.04*
The Search for Meaning (Subscale)	18.01	0.49227	25.409	0.4960	4.51872	0.02*
6. I am looking for something that makes my life feel meaningful.	3.60	0.46403	4.76	0.43452	4.62442	0.02*
7. I am always looking to find my life's purpose	3.74	0.55166	5.81	0.58120	5.8642	0.01**
8. I am always searching for something that makes my life feel significant	3.46	0.50169	4.60	0.48302	3.2371	0.03*
9. I am seeking a purpose or mission for my life	3.60	0.46433	4.76	0.44642	4.4325	0.03*
10. I am searching for meaning in my life.	3.60	0.47401	5.46	0.52252	4.4354	0.01**
Total	35.55	0.5780	51.79	0.5450	5.11164	0.02*
* = $p < 0.05$ ** = $p < 0.01$ *** = $p 0.001$					1	

Table (6): Comparison of Accepting the Past Scale Before and After the Life Review Intervention among Studied Subjects (n=60).

A		efore	After		T-test	P-	
Accepting the Past Scale	Mean	SD	Mean	SD	1-test	value	
Positive Past Experience	27.73	0.5062	38.58	0.4689	3.9748	0.02*	
2-I feel comfortable talking about things I've done in the past.	4.17	0.55332	6.38	0.52361	4.6844	0.02*	
5-All in all, I am comfortable with the choices I've made in the past.	3.53	0.54952	4.63	0.42966	4.3391	0.03*	
8- Generally, I feel contented with the way my life has turned out.	4.26	0.42432	6.40	0.45321	4.0403	0.01**	
11- I look back on the things I've done with a sense of satisfaction.	4.24	0.42637	6.46	0.52384	4.43181	0.01**	
13- When I look back on my past, I have a feeling of fulfillment.	3.60	0.48403	4.16	0.42654	3.43521	0.26	
15- I don't worry about things that happened a long time ago.	4.45	0.53369	5.81	0.45030	3.44412	0.02*	
16- I generally feel contented with what I have done so far in my life.	3.47	0.55169	4.72	0.46422	3.44923	0.02*	
Negative Past Representation	33.75	0.5147	42.037	0.4559	3.8170	0.04*	
1-Thinking about my past brings more pain than pleasure.	3.47	0.52389	4.42	0.47332	3.6221	0.03*	
3-Sometimes I have the feeling that I've never had the chance to live.	3.45	0.52164	4.60	0.46404	3.2623	0.02*	
4-There are things from my past that I will have to set right before I will be truly happy	3.60	0.59403	4.16	0.42652	4.4532	0.16	
6-There are some disappointments in life that I will never be able to accept	3.67	0.47603	4.21	0.42652	5.6354	0.23	
7- Some personal experiences from earlier on are still too difficult to think about	3.82	0.47603	4.7667	0.42652	5.6354	0.03*	
9- There are things about my life that I have difficulty accepting	3.47	0.52165	3.91	0.48030	4.435	0.36	
10- I have not led a very meaningful life.	4.20	0.48423	5.76	0.44654	4.4355	0.02*	
12-There are things from my past that frighten me.	4.62	0.50264	5.61	0.49030	4.2831	0.21	
14-I still feel angry about certain childhood experiences.	3.45	0.52164	4.60	0.46404	3.2623	0.02*	
Total	61.48	0.511	80.626	0.4616	3.8959	0.04*	
* = p < 0.05 ** = p < 0.01			*	** = p 0.00	1		

 Table (7): Comparison of Flourishing Scale Before and After the Life Review Intervention among Studied Subjects (n=60).

Flourishing Scale		Before		After		Р-
		SD	Mean	SD	T-test	value
1. I lead a purposeful and meaningful life.	3.45	0.4231	4.36	0.53451	3.2212	0.05*
2. My social relationships are supportive and rewarding.	3.53	0.51471	3.51	0.43221	3.2391	0.45
3. I am engaged and interested in my daily activities	4.27	0.42432	5.10	0.41321	4.2421	0.04*
4. I actively contribute to the happiness and well- being of others	4.25	0.43667	4.48	0.50394	4.2381	0.65
5. I am competent in the activities that are important to me	3.60	0.47103	4.12	0.43112	3.4412	.0.110
6. I am a good person and live a good life	3.65	0.50169	4.81	0.49030	3.4351	0.03*
7. I am optimistic about my future	2.45	0.30122	2.90	0.40402	3.3237	0.22
8. People respect me	4.60	0.49603	4.78	0.44652	3.4553	0.21
Total	29.81	0.4507	34.08	0.4591	3.5742	0333
** = p < 0.05 ** = p < 0.01 *** = p				* = p 0.00)1	

 Table (8): Comparison of Social Participation Scale Before and After the Life Review Intervention among Studied Subjects (n=60).

Social Participation Scale		Before			T-test	Р-
Social Participation Scale	Mean	SD	Mean2	SD	1-test	value
1. Visit family members/friends	2.47	0.44311	3.34	0.53451	3.2412	0.05*
2. Engage in a hobby outside your home	2.53	0.51471	3.12	0.43412	3.3351	0.45
3. Attend activities at a community/leisure center	2.27	0.42832	3.10	0.43121	4.4223	0.23
4. Go shopping	3.25	0.45713	4.18	0.53372	4.4621	0.03*
5. Go to the restaurant/club/café	3.20	0.45103	4.14	0.43212	3.2412	.0.03*
6. Attend a sports or cultural event	3.65	0.51169	4.81	0.47030	3.4332	0.03*
7. Take lessons or courses	3.45	0.32123	4.70	0.40402	3.3217	0.02*
8. Participate in a self-help or discussion group	2.60	0.47603	3.78	0.44652	3.4350	0.02*
9. Go to a public library or a cultural center	2.15	0.31123	2.16	0.30402	3.3217	0.46
10. Do some volunteer work	2.60	0.37603	2.78	0.43652	3.6355	0.47
Total	30.99	0.45509	39.75	0.4370	3.5849	0.05*
* = p < 0.05 ** = p < 0.01				**	* = p 0.00)1

 Table (9): Relationship Between Psychological and Social Outcomes Studied Subjects (n=60).

	Social Participation Scale			
Variables	Pearson correlation coefficient	P-value		
1. Total Ego-Integrity Scale	0.774	0.01**		
2. Total Meaning in Life Questionnaire	0.538	0.03*		
3. Total Accepting the Past Scale	0.587	0.02*		
4. Total Flourishing Scale	0.792	0.01**		
* = p < 0.05 ** = p < 0.01	*** = p 0.001			

Discussion

Life review is a promising intervention that addresses the psychological and social well-being of older adults. It helps the older adult to enhance psychological outcomes such as accepting the past, enhancing ego integrity, and finding meaning for life so, this paper aimed to determine the effectiveness of life review intervention in enhancing psychological and social outcomes of older adults (Kwan, Ng & Chan, 2017).

The results of the study revealed that the mean age of the older adults understudy was $76.331\pm$ 7.4321 years, and their age group ranged from 70-80 years constitute the highest percentage among older adults under study, more than three-fifths of them were female and

most of them were widowed. This result may be because women live longer than men. After all, they are more robust at every age and possibly due to a protective role of female hormones. Also, these results may be due to that, mortality rate increase in men due to a twofold elevation of arteriosclerotic heart disease among men. In addition, men have higher death rates for lung cancer and emphysema, primarily because more men smoke cigarettes. This is supported by Chiang, Lu, Chu, Chang, & Chou, (2008) who stated that most study subjects were >75 years of age, indicating that the elderly in the nursing home is in a state of advanced age, and most subjects were unmarried men and had no stable incomes.

This result was also, consistent with the findings of Austad (2006) in a study entitled "Why women live longer than men: sex differences in longevity" and whose study finding revealed that males have 60 percent higher mortality than females due to arteriosclerotic heart disease in men, and Major causes of higher rates of arteriosclerotic heart disease in men include greater cigarette smoking. This finding is also in line with Barford, Dorling, Smith, & Shaw (2006). A study entitled "Life expectancy: women now on top everywhere "stated that a higher mortality rate was among men may be due to probably a greater prevalence of the competitive, aggressive Coronary Prone Behavior Pattern among men.

Concerning the personal visits to the older adults, more than two-thirds of older adults in residential homes were not visited and did not visit their families. There are several possible explanations for these results, this may be due Characteristics of older adults to the understudy: Most of them were widowed and the rest of the studied older adults were single or divorced and only two of them were married, and married persons receive visitors more frequently than never married, divorced, or widowed because they have larger networks than people who are separated or divorced, widowed, or never married.

Also, this finding may be related to the distance traveled by the visitor, feature of nursing home(visitors are more likely to visit

when the nursing home encourages family involvement), the relationship between resident and visitor (visiting frequency increases according to the degree of closeness of the kinship relationship) or may be due to length of stay in the nursing home in which visitation frequency declines with length of stay in the nursing home.

This finding is congruent with that of Stall, et al., (2020) who mentioned that long distances require greater time and expense for the potential visitor, family members and friends who live near to the nursing home can visit more frequently than those who live further away. Also, the current study results revealed that more than two-thirds of studied older adults did not visit their families. This may be due to the problems in physical health that make it them difficult to visit their family or maybe due to that, they don't have more family members or friends who can visit them and this is the main reason for residing in a nursing home because in our cultures institutional eldercare is the last choice, and there because in the traditional Egyptian culture adult children require to provide direct care for their physically dependent parents and most of the elders are unwilling to go to the nursing home, which implies that the development of institutional elder care still faces difficulties and problems.

These results were in line with **Zhang** (2019), in a study entitled "Sending parents to nursing homes is unfilial "and stated that However, there is no denying that more institutional care services are becoming available and more elders have no denying that more institutional care services are becoming available and more elders have been placed in nursing homes in China but institutional eldercare was the last choice and also, most of the elders are unwilling to go to the nursing home.

Concerning physical health, the results of the study showed that physical health problems among studied subjects were bone/ joint problems, hyperglycemia & hypertension. This could be due to the fact that aging is associated with physical changes related to health conditions. Also, this could be because aging is associated with physical changes related to health

conditions. This might be attributed to the tough economic and living conditions faced by elderly people in Egypt, along with pensioners' low income and the failure to provide health and social services which meet their health and needs. This result agreed with Black et al (2006), who reported that the most prevalent health problems were skin problems, joint problems, and nutrition/hydration problems due to biological changes in older age. Also, these findings go in line with Onder et al (2012). who mentioned that for most of the elderly people in their study, moving into the nursing home brought many great changes in their everyday lives, they had lost their own homes and only one participant described the nursing home as 'home. This result is contradicted with the study entitled Perceived doctor-patient relationship and satisfaction with general practitioner care in older persons in residential homes which conducted by de Waard et al, (2018), who reported that older persons in residential homes have no physical illnesses and they stated that nursing homes are an important component of health services for the elderly population. Specifically, nursing homes or skilled persons facilities provide 24-hour nursing care to sick or disabled individuals.

Concerning ego-integrity, the current study revealed apparent positive changes in the studied subjects' responses about the scale of the egointegrity item, and statistically, a significant difference was found between pre-and postassessment in the total scale this enhancement could be due to the effect of remembering the past and accepting one's life cycle as unique facilitates the achievement of ego integrity .ego integrity Based on Erikson's model, bringing memories from the past into the present through the life review facilitates the achievement of integrity in This finding is consistent with aging. (Vanleerberghe et al., 2017) Who mentioned that older adults must deal with the challenges of aging, such as physical fragility, changes in physical, psychological, and social status, or decreases in well-being and life satisfaction, which could be related to stressful situations, depression, and anxiety, However, if they accept negative experiences and find that life, they can develop ego integrity. In addition, the current study was by (Krause & Rainville, 2020), who reported that finding meaning and reconciling

past events that define us enhance ego integrity among elderly people.

As regarding meaning in life among older adults understudy the current study showed clear improvements in subjects' responses regarding the meaning in life questionnaire postimplementation of life review intervention. For instance, having a goal in life was found to be effective for one to have a meaning and sense of purpose in life. Another study was done by Vos, & Vitali, 2018), who clarified that an individual's quality of life was found to be related to the sense of meaning in life. As stated before, since having meaning has desirable outcomes and is a fundamental part of human life, one important point about life review is that individuals experience pleasure during memorizing and it has a therapeutic effect on aging. Moreover, life review intervention provides old-age individuals a sense of meaning in their lives. During accepting the past process, individuals acknowledge that what they have experienced in the past helps them to create a coherent sense of self; and this makes it easier to find meaning in life.

Regarding accepting the past, the current study illustrated that older adult received their experiences more positively after reviewing their past experiences, the mean scores improved in post-assessment, especially in the past positive subscale, this could be due to that life review intervention because accepting the "past" requires remembering the experiences during the process of life review. The life review is recalling one's past and provides a sense of fulfillment and comfort when individuals look back, and old age individuals were found to be helpful to put their lives in perspective as they are aging. Older adults' can perceive their experiences more positively as a part of their integrative life after reviewing their past experiences, one important point about life review is that individuals experience pleasure when memorizing the past and positively accept it, and it has a therapeutic effect on aging. Moreover, life review intervention provides old-age individuals a sense of meaning in their lives. During accepting the past process, individuals acknowledge that what they have experienced in the past helps them to create a coherent sense of self; and this makes it easier to find meaning in life. This finding is in the line with Syed, Petriwskyj, Scott, & Neville, (2018), he reported that individuals who are successfully accepting their past, experience positive feelings toward the past; make positive evaluations about their past experiences, and they do this without experiencing intense negative feelings or frustration which consequently enhance psychosocial outcomes. Meanwhile individuals who fail to accept their past, are prone to see their lives as meaningless and disappointing.

As regards psychological wellbeing, the finding of the current study revealed that there were changes in the mean scores of all items of psychological flourishing scale after implementation of life review intervention, and there were significant statistical changes related to items of feeling good as a person and living a good life, purposeful and meaningful life and interested daily activities. It might be due to many explanations as life review intervention encourage older adults to communicate and discuss their past events and achievements and that could improve their communication. Communication plays an essential role in maintaining a person's autonomy and sense of self and eventually affects psychological wellbeing, especially after the loss of former social partners and social roles, many older people have little opportunity to talk about themselves or past events and achievements.

Another explanation, that may be due to that implementation of life review intervention is a universally occurring mental process in which the individuals recall their life experiences, evaluate them, and attempt to reconcile values adopted over his life and what their life has been. This finding agreed with many studies that revealed that life review intervention has been applied to improve psychological wellbeing for a variety of different subjects. Several studies have shown positive results in reducing depressive symptoms and improving the quality of life for the elderly (Momtaz, Hamid, Haron, & Baga., 2016; Sadri Damirchi, Ghomi, Esmaeli Ghazi Valoi, 2017; Sharif et al., 2018; & Karmiyati, Rahmadiani, & Hasanati, 2020).

Concerning social participation showed that there were significant differences among studied subjects regarding the mean scores of social participations after the life review intervention. It can be meant that the older adults became more aware of the value of social activities and participation. A further explanation is, life review intervention sessions required visiting and communicating with older adults every week and the presence of visitors has the additional benefit of decreasing the overall institutional atmosphere of the residential homend increasing the quality of life of older adults. The finding agrees with the results of **Jenko**, **Gonzalez**, & **Seymour**. (2007) who found that Life review intervention aims at increasing socialization, providing pleasure, improving self-confidence, and gaining rapport. Also, life review aims at facilitating integrity with a critical analysis of one's past life.

In short, some theories of aging suggest that a positive outcome of the life review process leads to the development of ego integrity (the acceptance of oneself and life in the face of death), satisfaction with life, and improve overall psychological and social wellbeing which in turn leading to improvements in the psychosocial outcomes of older adults.

Conclusion:

This study concluded that practicing the life review intervention sessions have a positive effect to improve the psychosocial outcomes of older adults. Older adults submitted higher scores of psychological Scales (Ego- integrity Scale, Meaning in Life Questionnaire and Accepting the Past scale) and Social Participation scale after the program intervention. However, there was a nonsignificant difference after the Life review intervention regarding a Flourishing Scale, some items were significantly improved among subjects.

Recommendations:

Based on the results of the current study, it was recommended that:

- 1. Further research to assess the long-term effect of life review on older adults' quality of life.
- 2. Additional research should be conducted to prove the results' stability of the current study on a large based on this type of intervention.
- 3. Increase the accuracy of the life review effectiveness, other research should be applied to compare the effectiveness of life review intervention with other kinds of interventions.

- 4. Psychiatric mental health and community nursing should provide training for formal and informal caregivers to apply life review as a part of older adults' management protocol.
- 5. Implement studies to assess the effect of life review intervention as an integrated therapy on patients with cognitive impairments.

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