

## Psychoeducational and Rehabilitation Intervention guideline for Late-Life Anxiety and Depression among the Older Adults at Geriatric Home

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### **Abstract**

**The Aim:** of the study is to evaluate the effect of psychoeducational and rehabilitation interventions guideline for late-life anxiety and depression among older adults in geriatric homes. **Design:** a quasi-experimental research design was performed **Subject:** a convenient sample consisting of 20 Older Adults. **Setting:** This study was conducted at Om-Kolsom geriatric home in Helwan city, Egypt in May 2021. **Tools:** for Data analysis include 1-Socio-demographic Questionnaire 2- Geriatric Depression Scale 3- Hamilton Anxiety Rating Scale. **Results:** There is a statistically significant improvement in depression and anxiety symptoms among the elderly who have been studied, and in total depression and anxiety levels in the post-intervention study compared with pre-intervention. **Conclusion:** At a geriatric home, psychoeducational and rehabilitation interventions guideline are effective in reducing symptoms of depression and anxiety among the elderly. **Recommendations:** Improving the quality of life for the Older Adults by using stress management techniques such as breathing exercises, mindfulness stress reduction, and relaxation techniques.

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**Keywords:** Psychoeducational, Anxiety, Depression, older adults.

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### **Introduction:**

Between 2015 and 2050, the proportion of persons over 60 years old will nearly double, from 12% to 22% globally. Also, by 2020, the number of persons over 60 will outnumber children under the age of five. Furthermore, by 2050, 80 percent of the world's elderly will be living in low-income countries.<sup>1</sup>

The effects of aging on one's physical, mental, and social well-being are unavoidable. Furthermore, loneliness among older adults may contribute to the development of mental and physical health problems.<sup>2</sup>

Dementia and depression, which afflict about 5% and 7% of the world's elderly population, respectively, are frequent mental and neurological illnesses among the elderly. Anxiety disorders affect 3.8% of the

elderly population, whereas substance use disorders affect nearly 1%.<sup>3</sup>

Because of the COVID-19 epidemic, it is critical that older people remain isolated and social distance is maintained to keep them safe and protected. In addition to the risk of catching the virus, social isolation can lead to anxiety and other mental health problems.<sup>4</sup>

Psychiatrists and psychiatric nurses can also encourage older folks to keep in touch with friends and family by making simple phone calls. Volunteering can boost self-esteem and provide meaningful responsibilities for mildly depressed older persons. Nurses can encourage those senior citizens to investigate volunteer options. Nurses can also reassure the elderly person that initiating this type of problem-solving

conversation with healthcare providers is acceptable.<sup>5</sup>

**A psychoeducational program aims to provide the elderly with the knowledge and skills they need to stay in good physical, mental, social, and emotional health as they age.** Elders who have a complete grasp of the issues they face, as well as knowledge of personal coping abilities, internal and external resources, and areas of strength, are better equipped to confront difficulties, feel more in charge of their condition(s), and have a higher quality of life.<sup>6</sup>

### **Significance of the study**

Significance of the study among the many factors that may contribute to mental health decline in old age, include the psychological effects of retirement, deteriorating physical health, loss, and grief from previous capacities, diminished social activities, and apathetic behavior may indicate certain psychosocial problems such as anxiety and depression. In 2050, Egypt is expected to have the largest number of old (23.7 million) and oldest-old (3.1 million) populations in the region. If this trend continues, we will, hereafter, have a population which is known as the elderly population.<sup>7</sup>

### **Aims of the study**

Evaluate the effect of the psychoeducational and rehabilitation interventions guideline for late-life anxiety and depression among the older adults at geriatric home.

### **Research Hypothesis**

The current research hypothesized that:

**H1:** the developed Psychoeducational guideline would enhance to decrease the late-life anxiety in a geriatric home

**H2:** The rehabilitation intervention guideline improves symptoms of depression symptoms among the old adult in geriatric home.

### **Subjects & methods**

The subjects and methods of this study have been portrayed under the four main designs as follows:

**A. Technical design:** The technical design included research design, setting, subjects, and tools of data collection.

**B. Design:** A quasi-experimental design was used to conduct the study.

### **The setting of the Study:**

This study conducted at Om-Kolsom geriatric home that is in Helwan city behind El Nasr hospital located in Egypt. The home consists of two rows first is for an old adult who is homeless and the second row for another old adult who needs to find support and care. The geriatric homes create a family-like atmosphere among the residents, meeting their basic needs, and providing care and medical treatment for them. Also, this home accepts the training of the nursing student from the community and psychiatric department in the faculty of nursing.

### **Sample**

A convenient sample was selected in the current study.

### **inclusion/exclusion criteria**

All elderlies aged 65 years and above have no complete hearing or vision impairment. enrolled in Om-Kolsom geriatric home that is in Helwan city that has a satisfactory level of cooperation and free from psychiatric disorders were included in the study after obtaining informed consent for participation

### **Data collection**

#### **1-Socio-demographic Questionnaire:**

This questionnaire was developed by the researcher after reviewing related literature. It covers socio-demographic characteristics such as age, gender, education level, place of residence, marital status, occupation, Source of income, Type of room... etc.

## 2- Geriatric Depression Scale

It was designed and used by Yesavege et al. (1983)<sup>30</sup>. It is 30- an item screening tool used to identify depression in older adults. It was used to assess different items such as the elderly preferring to do things in an exact manner, looking at the good points of the person rather than the bad pointset. It is in "yes/no" format.

### ❖ Scoring system:

<i>Levels depression</i>	<i>of</i>	<i>score</i>
normal		0-9
Mild depression		10-9
Severe depression		20-30

**3- Hamilton Anxiety Rating Scale.** It was designed and used by Hamilton, (1959)<sup>31</sup>. It was used to measure the severity of anxiety symptoms; the scale consists of 14 items designed to assess the severity of anxiety symptoms. Each of the 14 items contains a number of symptoms, and each group of symptoms is rated on a scale of zero to four, with four being the most severe. All of these scores are used to compute an overarching score that indicates anxiety severity.[4] The Hamilton Anxiety Rating scale has been considered a valuable scale for many years and is still widely used today in both clinical and research settings. The scale consists of 14 items, each defined by a series of symptoms, and measures both psychic anxiety (mental agitation and psychological distress) (from n.1to7) and somatic anxiety (physical complaints related to anxiety) (from n.8 to14).

<i>Levels of anxiety anxiety</i>	<i>score</i>
Mild anxiety	<17
Mild to moderate anxiety	18-24
Moderate to severe anxiety	25-30

The participant is asked to indicate the extent to which he/she agrees with each statement by selecting one of five possible options ("strongly disagree", "disagree", "neither agree nor disagree", "agree" and "strongly agree", each with a score of 1-5).

The five points rating scale scored "strongly disagree = 1", "disagree = 2", "neutral = 3", "agree = 4"and "strongly agree = 5". Items 4,7,8,10,16 and 38 were reverse scored as "strongly disagree = 5", "disagree = 4", "neutral = 3", "agree = 2"and "strongly agree = 1". Higher scores indicate a higher QOL. The total score ranges from 40 (worst possible QOL) to 200 (best possible QOL).

### Pilot study

To ensure the clarity of the questions, the applicability of tools, and the time required for them to be completed, we conducted a pilot study on two elderlyies who represented 10% of

### Ethical considerations

Included the following:

- Helwan University's Faculty of Nursing obtained initial approval from the research ethics committee in writing, Reference number of the ethics committee is 29 in July 2021
- After explaining the nature and benefits of the study participants' consent was obtained orally/in writing.
- The aim of the study is explained to the subjects by researchers and maintain the confidentiality of Participants

### Procedure:

After obtaining official permission to carry out the study. The researchers explained the purpose of the study to the participants. and they filled in the questionnaire (pretest). Confidentiality of any obtained information was assured, and participating subjects were informed about their right to participate or not in the study. Participating subjects were also assured of anonymity, and that data will only be used for research purposes. Before conducting the psycho-educational Intervention guideline, participating subjects were asked to give an agreement to participate in the study. The data collection of the study was covered a period of three months the rom beginning of January 2021 to the end of April 2021 in the previously

mentioned settings, and the researchers were available in the study settings two days/week on Tuesdays and Wednesdays from 9.00 a.m. to 12.00 p.m. group discussion, role play, booklet, photos, videos, and posters used in each session. Participants were informed about their right to participate or withdraw at any time of the study.

The Intervention guideline was implemented in the form of group discussion; each session lasted about 45:60 minutes. Suitable teaching aids are prepared specially for the program. At the end of every session, the elderly questions were discussed to correct any misunderstanding, which has happened. A different teaching strategy was used in implementing the program, e.g. discussion, direct application and role play.

Moreover, There were some participants unable to read and fill out the questionnaires, the researchers helped them read the questionnaires and asked the participants to answer.

In sessions, researchers started by greeting participating elderly and providing an overview of the aging process, followed by an explanation of mental and psychological aging changes and psychological problems that are common in the elderly. The next theoretical session also started with greeting participating elderly, summarized the previous sessions, then appraised the importance of eating a healthy diet, described the nutritional requirements for the elderly, and followed by discussing the best types of food for the elderly by using handouts, video, and posters. At the end of each session, elderlies were asked for their feedback in discussion.

Other sessions were concerned with problem-solving skills, it started to identify the concept of problem-solving and followed by demonstrating steps of problem-solving skills. At the end of the session, elderlies were evaluated for applying the steps of problem-solving skills through re demonstration. Next session concerning about stress management

strategies and mindfulness techniques like body scan and leisure activities, it started with appreciating the value of leisure activities and listing types of activities appropriate to their age, followed by practicing the suitable activities.

After conducting the intervention guideline participants were thanked for their participation, make summarize and asked them to fill the post-program data collection tools by using the same format of the pretest to evaluate the effectiveness of the Psychoeducational and Rehabilitation Intervention guideline.

### Data analysis

The collected data were organized and analyzed using appropriate statistical significance tests. The data were collected and coded using the SPSS, a computer statistical tool for social science (version 20), was also utilized to perform data statistical analysis. Descriptive statistics in the form of frequencies and percentages were used to present the data. To compare frequencies and correlations between study variables, Chi-square and Pearson were used. The following were the degrees of significance of the findings: p-value > 0.05 It is insignificant (NS) 0.05 p-value 0.001 is a significant (S) p-value

### Result:

**Table (1):** reveals that nearly three quarters (70%) of elderly people had ages 65-75 years with  $(69.65 \pm 7.81)$ . More than three fifths (70%) of them were female. also, two fifths (40%) of elderly were Widowed and had governmental work. Nearly to Half (40%) of them were read and write. Half (50%) of them had source of income from pension. Moreover, nearly two thirds (65%) of elderly had duration of stay in the elderly home ranged from 1:5 years, and 65% of them were lived in common room and nearly three fifths (60%) of elderly had sufficient income

**Figure (1):** reveals that 40% of studied subjects having hypertension, and 20% of Them having diabetes. While Cardiac

and vascular disease 15% also Arthritis and Orthopedic disease 15% but Respiratory disease 10%.

**Figure (2):** reveals that duration of stay in the elderly home (65%) of elderly stay 1-5 years and only (25%) of elderly were 5-10 years.

**Figure (3):** illustrates that there is a statistically significant deference's between pre and post intervention in Percentage distribution of elderly total **depression levels**.

**Figure (4):** shows that there is a statistically significant improvement in total anxiety levels in the post intervention phase compared with the pre-intervention phase Elderly depression

**Table (2):** reveals that there is a statistically significant improvement in all items in the post-intervention phase

compared with pre-intervention phase. While there is no statistically significant improvement regarding get the bored item.

#### **Correlation between total anxiety levels and total depression levels**

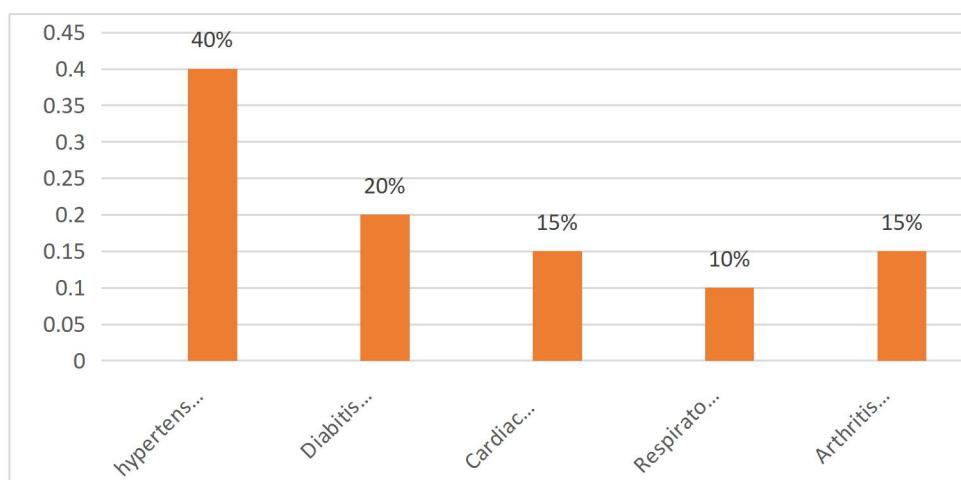
**Table (3):** reveals that there is a positive correlation between total anxiety levels and total depression levels of the studied elderly. in addition, reveals that there is a positive correlation between total anxiety levels and total depression levels of the studied elderly in the post intervention phase.

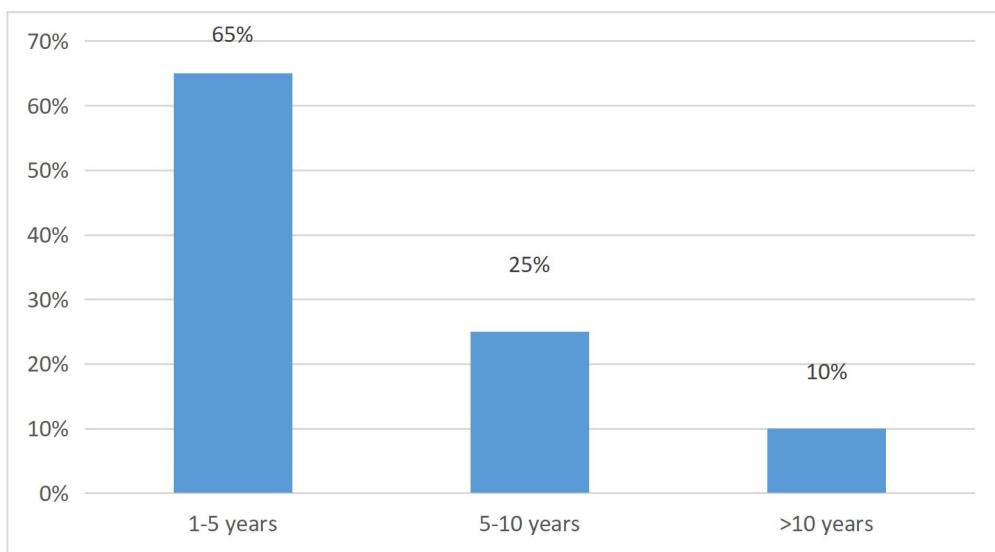
The relation between total anxiety levels of elderly and their type of room

**Figure (4)** illustrates that there is a statistically significant relation between total anxiety level of elderly and their type of room in the pre & post intervention.

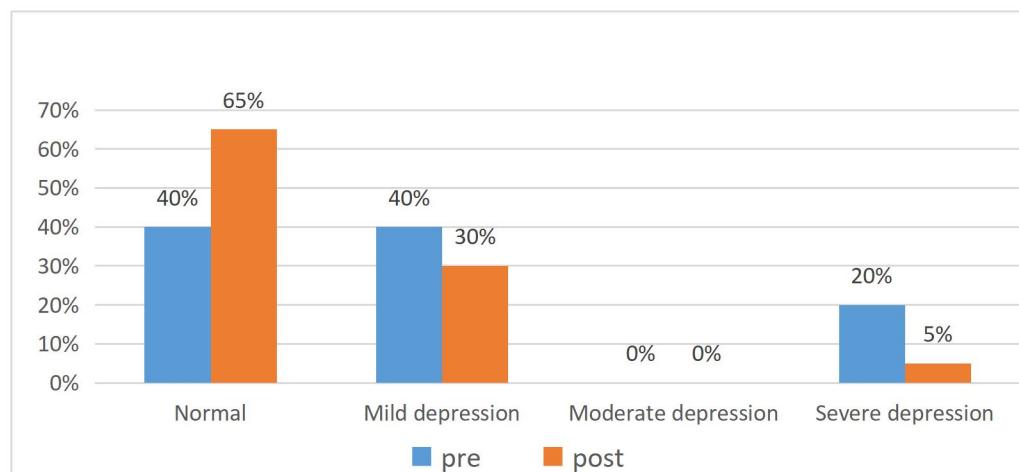
**Table (1):** Sociodemographic characteristics of the studied elderly at geriatric home (n=20).

Personal characteristics	No.	%
Age in years		
65-75 years	14	70.0
>75 years	6	30.0
(69.65 ±7.81), Gender		
- Male	6	30.0
- Female	14	70.0
Marital status		
- Single	4	20.0
- Divorced	6	30.0
- Widowed	8	40.0
- Married	2	10.0
Job		
- Governmental work	8	40.0
- Free business	6	30.0
- Not working	6	30.0
Educational level		
- Illiterate	4	20.0
- Read and write	8	40.0
- Secondary education	6	30.0
- University education	2	10.0
Source of income		
- The son	4	20.0
- A relative	2	10.0
- Pension	10	50.0
- A charity	4	20.0
Type of room		
Common room	13	65.0
Single room	7	35.0
Income		
Sufficient	8	40.0
Insufficient	12	60.0

**Figure (1):** Past history of chronic disease.

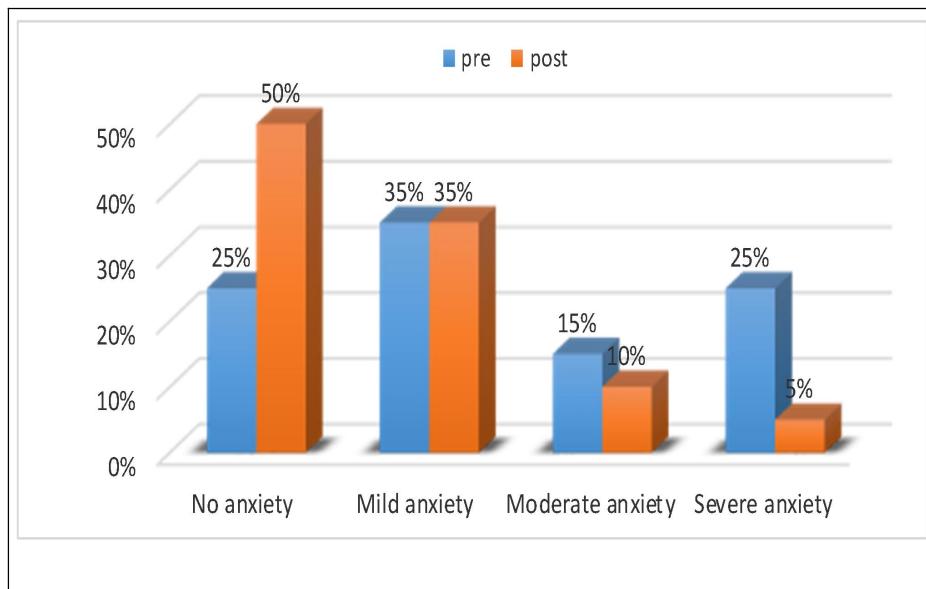


**Figure (2):** Duration of stay in the elderly home.

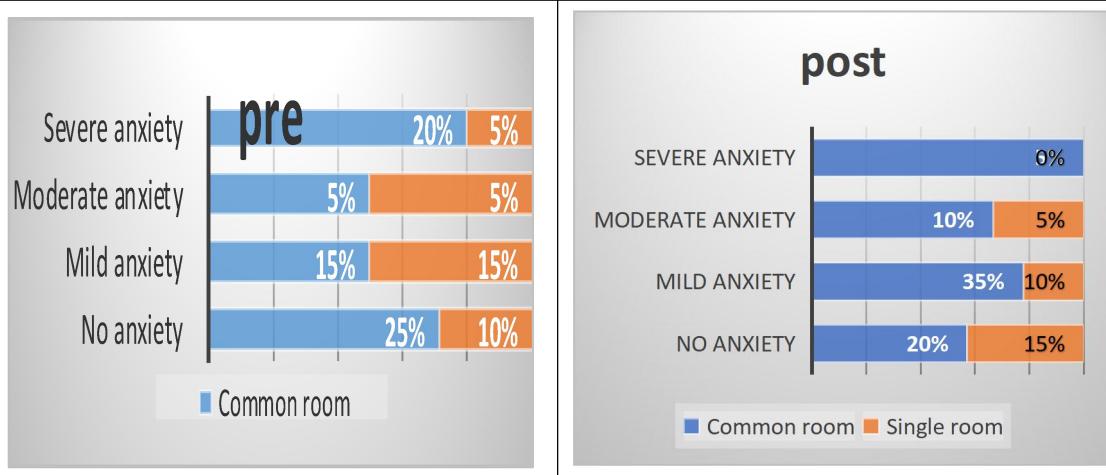


(\*) statistically significant p < 0.05 (\*\*) highly statistically significant p < 0.001

**Figure (3):** percentage distribution of elderly total depression levels (n=20).

**Figure (4):** Percentage distribution of elderly total anxiety level (n = 20).**Table (2):** Number & Percentage distribution of elderly depression scale pre& ,post (n = 20).

Items	Pre intervention		Post intervention		$\chi^2$	P-value
	N	%	N	%		
1. Satisfaction with their life	3	15.0	11	55.0	4.37	.028*
2. Dropping many of their activities and interests	5	25.0	4	20.0	3. 96	.004*
3. Feeling that their life is empty	5	25.0	3	15.0	4.91	.039*
4. Get bored	4	20.0	2	10.0	6.26	.003*
5. Hopeful about the future	6	30.0	4	20.0	4.23	.028*
6. Bothered by thoughts that can't get out of the head	4	20.0	4	20.0	5. 45	.041*
7. In good spirits most of the time.	4	20.0	3	15.0	3.85	.036*
8. Afraid that something bad is going to happen to them	6	30.0	2	10.0	2.89	.064
9. Feeling happy most of the time	9	45.0	7	35.0	5.01	.009*
10. Feeling helpless	6	30.0	3	15.0	4.37	.047*



**Figure (4):** The relation between total anxiety levels of elderly and their type of room in the pre & post intervention.

**Table (3):** Correlation between total anxiety and total depression levels of the studied elderly pre& post.

Pre	Total depression levels		Total anxiety levels
Total depression levels	r	1	.626
	p-value	-	.000**
Total anxiety levels		.626	1
	p-value	.000**	-

## Discussion

The current study found that two-thirds of the elderly studied were under the age of seventy, with a mean age of (69.65 \* 7.81) years. These findings investigated best of life and related factors amongst older humans residing in rural areas in this result disagreed with **Duchi, et al., (11) (2019)** declared that age of studied topics turned into sixty-nine.6+-6.1 years. Conversely. **In addition,** supported by **Cole's assertions (2021).** The average age of the participants in the study was 69.66.1 years. This result changed in agreement with **Mahmoud<sup>8</sup>, et al., (2018)** who studied the impact of the residing surroundings on falls in the various ages in Urmia and found that majority of the elderly's age ranged from 70 to eighty years.

According to the findings of the current study more than three-quarters of senior persons aged 65 to 75 years old have (69.65\*7.81). Nearly half of them (40%) could read and write. Pensions provided income to half of them (50 percent). Furthermore, nearly two-thirds of the elderly (65%) spent one to five years in an elderly home, with 65 percent of them living in a communal room.

This result is supported by using **Cole, (2021).**<sup>9</sup> who discovered that most of the elderly in geriatric houses aged from sixty-five-70? This result is constant with the observation **Ostling, Palsson, & Skoog, I. (2015);**<sup>10</sup> who reported More than three-fifths (70 percent) of the old folks were female, according to this finding. Because

they do not have other individuals to support them with their requirements, most old people in geriatric homes are female. This outcome was contested. With **Disu, et al., (2019)**<sup>12</sup> who investigated the risk factors for geriatric depression in old Bangladeshi people and discovered that more than half of the elderly were men. This conclusion is further refuted by **Stebbins, et al., (2015)**<sup>13</sup> who stated that the very best percentages of institutionalized aged had been men. In assessment, this result was in settlement with **Seyit, et al., (2019)**<sup>14</sup> who studied the evaluation of emergency branch visits by way of geriatric patients residing in geriatric homes and discovered that more than two thirds of aged were lady.

According to the current study, two-fifths of subjects were widowed and worked for the government. This finding could be attributed to elderly people losing their husbands during their golden years. **Shrestha, Heera, Bhattacharai, Mishra, & Parajuli, (2019)**<sup>15</sup> who evaluated the impact of an educational programme aimed at improving dental health among the elderly and discovered that less than one-third of those studied were widows. This conclusion, on the other hand, was contrary to expectations. **Mahmood abad, et al., (2018)**<sup>16</sup> who investigated the impact of the living environment on senior falls in Urmia and discovered that more than half of the elderly were married. On the other hand, this outcome was backed up by **Eldardery, et al., (2018)**<sup>17</sup> who investigated the risk factors for malnutrition in the elderly in geriatric facilities and discovered that more than a third of the elderly worked for the government.

In terms of income, the most recent study found that nearly three-fifths (60 percent) of the elderly had enough money. This could be because the elderly has been confined to the geriatric home, and the management of the geriatric home is responsible for all matters concerning them. This result was in line with what was

expected. **Khosravi, et al., (2021)**<sup>18</sup> They investigated the impact of a spirituality-based application on stress, anxiety, and depression in older mental health patients in Iran and discovered that most of the elderly had sufficient profits month after month. As a result, a battle of words erupted. **Disu, et al., (2019)**<sup>11</sup> who investigated the risk factors for geriatric depression in elderly Bangladeshi people and reported that more than half of the elderly had insufficient monthly incomes.

According to this study, the average length of stay in an elderly facility is 1-5 years for 65 percent of the elderly and 5-10 years for just 25% of the old. Furthermore, the findings revealed that over three-fifths of them (65%) lived in a communal room. This could be due to senior people need assistance and assistance from other people at an early age, therefore they resorted to geriatric homes to receive full care. This outcome was backed up by evidence. **Seyit, et al., (2019)**<sup>14</sup> hey looked at emergency department visits by geriatric patients in geriatric homes and discovered that most of the elderly were living in geriatric homes to receive complete care. In addition, this outcome is consistent with **Eldardery, et al., (2019)**<sup>19</sup> They investigated the risk factors for malnutrition in the elderly in geriatric homes and discovered that two-thirds of the elderly had spent more than three years in a double room.

In compared to the pre-intervention phase, the current study found a statistically significant improvement in all items in the post-intervention period. This outcome could be attributed to the need for training for senior persons to avoid and lessen depression symptoms. This outcome was in line with expectations. **Li, et al., (2019)**<sup>20</sup> investigated a comprehensive intervention for anxiety and melancholy in a few old tuberculosis patients and found that the stage of melancholy in the elderly had developed following the adoption of a comprehensive intervention for depression in the elderly.

Furthermore, there is a statistically significant development in all objects inside the submit intervention phase in comparison with pre intervention segment. Also, there is highly statistically significant enormous development regarding thinking it is wonderful to be alive now item in the post intervention phase. On other hand, there is no statistically significant improvement regarding Life is very exciting item.

who studied the results of a psychosocial assist application on perceived strain of aged sufferers with mental problems, and found that majority of elderly have been lifestyles without exiting?

The current study demonstrated that there is a highly statistically significant change in total depression level in the post-intervention phase compared to the pre-intervention phase in the older population. This may be related to senior people's desire to participate in training programmers to help them overcome their emotions of depression by employing various coping skills such as positive thinking, self-awareness, and stress management. This result was supported by **Tsiouris, et al., (2021)**<sup>22</sup> who studied the emotion-primarily based intervention for reducing anxiety and melancholy in elderly sufferers and observed that majority of aged human beings had improvement in despair for elderly patients. Conversely, this result turned into congruent with **Douki, et al., (2019)**<sup>11</sup> who studied the effectiveness of fine thinking education on anxiety, despair, and best of life of elderly people, and discovered that there may be relatively statistically vast development in overall depression level in the post-intervention segment.

The current study clarified that concerning elderly anxiety rating scale, and aged total anxiety level there is a statistically significant improvement in all items in post-intervention paired with pre-intervention this result may be because of elderly humans had desired to improve their moods so, elderly

people were careful on training a program to reduce feeling of anxiety mood. This result agreed with **Becqué, et al., (2019)**<sup>23</sup> who studied the nursing interventions to assist elderly humans in give up-of-life care at geriatric home and discovered that there may be a statistically substantial development in tension tiers of elderly human beings after implementation nursing of interventions. Conversely, this result disagreed with **El-Zeftawy, & Sabra, (2018)**<sup>24</sup> They investigated the impact of Alzheimer's disease psycho-educational applications on understanding, healthy lifestyle, depression, and burden of Alzheimer's patients, and discovered that most elderly people had a tense mood after using the psycho-educational application

Furthermore, the prevailing result changed into congruence with **Baughman, et al., (2020)**<sup>25</sup> who investigated the prevention of anxiety and depression in the elderly and discovered that most elderly patients showed a rise in total tension levels. On the other hand, this result was in line with expectations. **Cole, (2021)**<sup>26</sup> who investigated the vibrant and wholesome: a ten-year group study aimed to advise relapse prevention for older persons coping with tension and/or despair and concluded that more than half of the senior people did not see a reduction in overall stress.

A recent study discovered that there is a positive link between total anxiety and total depression among the elderly surveyed. This outcome could be related to a link between senior people's anxiety and depression levels, as well as the fact that elderly persons were wary of the training programme. This result was in line with expectations. **Mehra, et al., (2020)**<sup>27</sup> who studied the crisis for elderly with intellectual problems: Relapse of signs due to heightened tension and determined that there was a wonderful correlation among aged human beings and level of hysteria. Alternatively, this result changed into congruent with **Nedev, & Bogdanova, (2021)**<sup>28</sup> who studied the cross-sectional

differences in the level of despair for aged people in Europe and located that there was a negative correlation between elderly humans and level of depression

Furthermore, the current study shows that there may be a statistically significant relationship between the total anxiety level of the elderly and the type of room they occupy throughout the pre- and post-intervention period. This outcome may be owing to elderly people in the early phase of their lives desiring to help and be assisted by others, therefore they went to geriatric homes to receive complete care. This result was in line with expectations. **Eldardery, et al., (2019)**<sup>29</sup> who investigated the dangers of malnutrition in the elderly in geriatric homes and discovered that two-thirds of the elderly have spent more than three years in a double room

### **Conclusions:**

The researchers came to the following conclusions based on the findings of this study:

1. Psychoeducational and Rehabilitation Intervention guideline are successful in boosting and managing late-life depression and anxiety symptoms, as evidenced by the elderly's depression levels improving significantly following the intervention.
2. also, beneficial in reducing anxiety-related symptoms (cardiovascular, respiratory, gastrointestinal, and genitourinary symptoms).

### **Recommendation:**

1. Future research for the elderly should concentrate on increasing their self-awareness about their life and assisting them in changing their attitudes and methods of thinking about ageing.
2. Improving the quality of life for old adult by using stress management techniques such

as breathing exercises, mindfulness stress reduction, and relaxation techniques.

3. Provide an in-service training programme for nurses and caregivers who deal with the elderly on the emotional and physical effects of ageing, as well as the scientific foundation for managing them .

### **Declaration of Competing Interest**

No conflict of interest has been declared by the authors

## Availability of data and materials applicable

### Funding statement

None

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### Authors' contributions

Authors including WO, HO and OE shared together the steps of design, background review, statistical analysis, results' representation, and discussion. Both authors read and approved the manuscript.

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