Effect of Guided Imagery in Reduction of Stress among Elderly People in Geriatric Homes

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Abstract **Background:** The elderly in old age homes at Benha city and Mansoura city have to face the burdens of long-term illness and numerous treatment associated stressors. The ability of these elderly to cope with and adapt to these stresses has an important influence on physical and psychological well-being **Aim of the study:** The aim of this research is to assess the effect of guided imagery as therapeutic strategy in reduction of stress among elderly people in geriatric homes at Benha city and Mansoura city. **Research Hypothesis:** The guided imagery as a therapeutic strategy will have a positive effect on reducing stress among elderly people in geriatric homes. **This study used:** Quasi experimental design study. **Subjects:** The target of this study consists of 40 elderly people. **Setting**:- The study was conducted at geriatric homes at Benha city and Mansoura city. **Tools for data collection:** The following tools were used for data collection part I:- Socio-demographic data sheet and part II the stress scale was developed by Jacob, (2005). It consisted of 25 items covering psychological, physiological, social and spiritual areas of stress. Positive and negative statements were included in this scale. The response alternatives were always, sometimes, rarely and never. **Results**: The result reveals that most of the elderly were Widowed (85.00%). In relation to elderly educational levels that the majority of the study groups had a secondary education (45.00%) and there are highly statistically significant differences between pre and post program related to stress level. **Conclusion**: Elderly in geriatric homes at Benha city and Mansoura city had significant reduction in the level of stress after the Practice of guided imagery**. Recommendation**: Practice of guided imagery can be introduced in the inpatient and outpatient settings of the hospital, before, during and after various medical procedures, Guided imagery can be made a part of daily routine of students and staff, which would help them to overcome their academic stress and a study can be carried out to find out the effectiveness of guided imagery on the occupational stress of employees of different fields.

Keywords: guided imagery, stress, elderly, people

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1. Introduction

A man's life is normally divided into five main stages namely infancy, childhood, adolescence, adulthood and old age. In each of these stages an individual has to find himself in different situations and face different problems. In old age physical strength deteriorates, mental stability diminishes. The world's elderly population is 650 million. By 2050, the "greying" population is forecast to reach 2 billion. By 2050 about 80% of the elderly will be living in developing countries [1].

Aging can also bring many changes at a time when they are least able to adapt to change it is a well-known axiom that the elderly people have problems, not just physical disease. The elderly people are vulnerable to emotional and stress because of the sense of loss that come from the death of friends and family members, loss of outcomes, loss of autonomy as well as from retirement [2].

In more recent times, the traditional role of the family is being shared by institutions such as old age homes. It is often assumed, and sometimes argued, that the absence of familial care and surroundings induce stress among the residents of old age homes. Stress is a major cause of depression and Alzheimer's disease in old age .They have identified an area of the brain which shrinks in old age resulting in depression and Alzheimer's disease. The shrinkage of a region of the brain called the anterior cingulate cortex result in the release of high levels of stress hormones [1].

God created our bodies with perfect balance and healing ability. We were designed with congruence and a natural rhythm. (The rhythmic opening and closing of the valves of the heart, the coagulation of blood to form a healing covering or scab on a wound, the messaging system of our nerves which alert our brains to

act are examples). Guided imagery is not hypnosis, sorcery, witchcraft, voodoo, or demonic. It is not handing over control of your mind in any way [3]. But Imagery can stimulate changes in bodily functions such as heart rate, blood pressure and respiratory patterns. It can help tap inner strengths to help the patient find hope, courage and other qualities that can help the patient to cope with a variety of conditions [4].

Guided imagery is a form of focused relaxation that helps create harmony between the mind and body. It is a way of focusing your imagination to create calm, peaceful images in your mind, thereby providing a "mental escape." Guided imagery provides a powerful psychological strategy that enhances a person's coping skills. Imagery involves all the senses, as well as one's whole body and emotions. It is a way of viewing your ideas, feelings, experiences and interpretations [5].

More ever, Guided imagery is a skill that can be learned in both inpatient and outpatient settings and it can be taught by nurses. Teaching relaxation skills is consistent with the concept that the patients who participate in their care are more autonomous. Once it is learned they can practice it themselves. Relaxation training is also cost-effective. For patients, the goal of curing imagery is to replace the negative images that provoke fear, helplessness and anxiety with positive images of healing and wellbeing that contribute to recovery [6].

Stress management focuses on reducing the secretion of cortisol and the catecholamine which destroy the balance of the immune system. Mental imagery, by altering brain biochemistry, may influence or alter the immune system cells. The daily sessions of the guided imagery makes heavy use of the imagery in changing the participant's perceptions of the stress through cognitive/imagery restructuring. The person is encouraged to image the salubrious changes taking place. Imagining the overall feeling of health and wellbeing seems to actualize the body is becoming whole, healthy, beautiful and powerful [7].

1.1. Aim of the Study

This study aims to assess the effect of guided imagery on stress among elderly people in geriatric homes.

It will be achieved through:

1. Assessing the level of stress among elderly people in geriatric homes

2. Developing the guided imagery as a therapeutic strategy in the reduction of stress among elderly people in geriatric homes

3. Implementing the guided imagery as a therapeutic strategy in the reduction of stress among elderly people in geriatric homes.

4. Evaluating the effect of the guided imagery as a therapeutic strategy in the reduction of stress among elderly people in geriatric homes

1.2. Research Hypothesis

The guided imagery as a therapeutic strategy will have a positive effect on reducing stress among elderly people in geriatric homes.

2. Subjects &Methods

2.1. Research Design

A quasi experimental research design was used to find out the effect of the guided imagery as a therapeutic strategy in the reduction of stress among elderly in geriatric homes

2.2. Setting

The study was carried out at the geriatric homes at Benha city and in Mansoura city.

2.3. Subject

The target of this study consists of 40 elderly people who are staying in the geriatric homes at Benha city and in Mansoura city

Inclusion criteria

- Elderly who are living in the geriatric homes.
- Elderly who are available during the study.
- Elderly who are willing to participate in the study.

Exclusion criteria

- Elderly who are suffering from psychosis and organic brain disorder.
- Elderly who are suffering from low blood pressure.
- Elderly with post-traumatic stress disorder.

2.4. Tools of the Study

Tools were used to conduct this study described as the following:-

Part I:- It was concerned with Socio-demographic characteristics of the studied subjects which consist of age, sex, educational level, occupational status, income, marital status, and responsibility towards family .

Part II:- Stress scale was developed by Jacob, [8] in order to assess the stress level among elderly people. It consisted of 25 items covering psychological, physiological, social and spiritual areas of stress. Positive and negative statements were included in this scale. The response alternatives were always, sometimes, rarely and never. These responses score as 1, 2, 3 and 4 for positive items and 4, 3, 2 and 1 for negative items.

The content of stress scale for elderly people as following:-

1-Psychological areas:- consist of items 1,5,7,9, 11, 13, 15, 16, 24 (52%)

2- Physiological areas:- consist of items 12, 14, 18, 22 (16%)

3- Social areas:- consist of items 6, 17, 19, 20,21, 25 (24%)

4- Spiritual areas:- consist of items 10, 23 (8%)

- **Scoring key of Stress Scale:-**

Positive Score: -1, 2, 4, 8,9,10,11, 14, 18, 20, 21, 24

Negative Score: -3, 5, 6, 7, 12, 13, 15,16,17, 19, 22, 23, 25

2.5. Scoring System

- From 50 – 60% Mild stress level
- From 61-70 % Moderate stress level

- >70 %   Severe stress level

2.6. Preparatory Phase

Review of current and past literature related to topic by the researchers using books, magazines periodicals and network. This was done to get a clear picture of all aspects related to the topic of the study.

2.7. Content Validity

Before starting the data collection instruments were tested for its content validity by five of expertise to check the relevancy, clarity, comprehensiveness, and applicability of the questions. As a result of the jury, required modifications were done and the final form was developed.

2.8. Reliability of Tools

Standardized tools	Cronbach's Alpha	No of Items
Stress scale	(0. 82)	25 items

2.9. Administrative Design

A written letter was issued from the Dean of Faculty of Nursing, Benha University to the General Director of geriatric homes at Benha city and in Mansoura city to obtain the approval for data collection. The objectives and the nature of the study were explained and then it was possible to carry out the study with minimum resistance.

2.10. Ethical Considerations

Before conducting the study, the elderly people were assured that the data will be collected from the questionnaires will remain confidential and that no personal identification was needed by any means. The elderly people were informed that they could refuse to participate in the study, or withdraw from it at any time and then acceptance of the patients to participate in the study was taken. The researcher obtained permissions from Dean of Benha Faculty of Nursing to the General Director of geriatric homes at Benha city and in Mansoura city to conduct the study and to enter these homes.

2.11. Pilot Study

After the tools have been designed, they were tested through a pilot study, which was done before embarking on the field work to check the clarity and feasibility of designed tools and to estimate the time needed to complete its items. It was carried out on 4 elderly people (10% of the sample size), who were excluded from the main study subjects. According to the result of the pilot study, no changes were required.

2.12. Field Work

The field work included the elderly people in geriatric homes were classified into five groups: each group consisted of 8 elderly people. First, the researcher collected all the elderly people to be acquainted with them, explained to them the objectives of the program and its expected outcomes, and they filled in the questionnaire (pre test) through two days/week (Saturday& Thursday). This process took one months (January,2016).

The sessions with the elderly people were carried out during (February to March 2016), through specific days (Saturday& Thursday). The researcher met groups (1 & 2) on Saturday and met groups (3 & 4 &5) in Thursdays. Each session lasted approximately to 60 minutes, 2 days/week, for 2 months. The total number of sessions was 8. The program was implemented in the form of group discussion. Suitable teaching aids prepared specially for the program were: booklet, photoes and real situations. At the end of every session, the elderly people questions were discussed to correct any misunderstanding, which has been happened.A different teaching strategy was used in implementation of the program, e.g. discussion, photoes and role play. The program was implemented five times for the five groups of the patients

To ensure that the elderly people understand the program content, each session was started by a summary about what was given through the previous one and objectives of the new one were mentioned taking into consideration using simple language to suit all the elderly people. To ensure exposure of all subjects to the same learning experience all the elderly people received the same program content using the same teaching methods, discussion and booklet.

At the end of the sessions, the researcher distributed the questionnaire to make a post test from the elderly people.

2.13. The technique of Guided Imagery

The technique for applying the method of Guided Affective Imagery is simple. the elderly people lies down on a couch. Outer stimuli are reduced as much as possible. The room should be quiet and the lights dimmed. He is then asked to relax. It may be advisable to offer some verbal suggestions that help to deepen the relaxation. One then starts with the first standard situation, the meadow. The the elderly people is asked to imagine a meadow, anymeadow that comes to mind. No further comment is given. Everything is left as open andas unstructured as possible so that the patient can develop his own image of a meadow with its associated feeling quality. The researcher gently persists in asking the elderly people to give detailed descriptions of his imagery and of the feelings associated with it.

2.14. Statistical Design

The collected data were organized, coded, computerized, tabulated and analyzed by using the statistical package for social science (SPSS), version (20). Data analysis was accomplished by the use of number, percentage distribution, mean, standard deviation, and correlation, coefficient; chi- square was used to test the significance of some variances. A significant level value was considered when $p<0.05$.

3. Results

Table 1: This table shows that, the socio demographic characteristics of the Elderly people in geriatric Homes. The result reveals that most of the elderly were Widowed (85.00%). In relation to patients educational levels that the majority of the study groups had a secondary education (45.00%).

Table 2: This table reveals, that there are statistically and highly statistically significant differences between psychological area of stress for the elderly people (p >0.001).

Table 3: This table shows that, there are highly statistically significant differences between pre and post program in all items of the physiological area of stress for the elderly people.

Table 4: This table shows that, there are statistically and highly statistically significant differences between pre and post program in all items of the social area of stress for the elderly people.

Table 5: This table illustrates that, there are highly statistically significant differences between pre and post program in all items of the spiritual area of stress for the elderly people.

Table 6: Documents that, there are highly statistically significant differences between pre and post program related to stress level.

Table 7: Reveals that, there are not statistically significant differences between pre and post program in relation to all items of socio-demographic characteristics of the elderly people.

Table 1. Number and Percentage distribution of the studied subjects according to their Socio demographic characteristics. (n=40)

Items	No	%
Age		
60<65	2	5.0
65<70	6	15.0
70<75	13	32.0
75<80	6	15.0
80<85	13	32.0
Sex		
Male	20	50.0
Female	20	50.0
Marital status:		
Single	3	7.5
Divorced	3	7.5
Widowed	34	85.0
Educational level		
Illiterate	6	15.0
Read and write	12	30.0
Secondary education	18	45.0
University	4	10.0
Date of enter the elderly home		
6 months	5	12.5
1 year	8	20.0
2 years	4	10.0
3 years	5	12.5
4 years and more	18	45.0
Residence		
Urban	40	100.0
Total	40	100.0

Table 2. Comparison between the psychological area of stress for elderly people in geriatric homes pre and post program (N=40)

Items	Pre program								Post program								X^2	P-value
	Never		Rarely		Sometimes		Almost		Never		Rarely		Sometimes		Almost			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
1-I am in good spirit	7	17.5	8	20.0	14	35.0	11	27.5	10	25.0	24	60.0	6	15.0	0	0.0	21.16	<0.001**
2-I am hopeful about my future	8	20.0	12	30.0	9	22.5	11	27.5	10	25.0	28	70.0	2	5.0	0	0.0	16.66	<0.001**
3-I feel that something bad is going to happen to me	1	2.5	16	40.0	10	25.0	13	32.5	7	17.5	29	72.5	4	10.0	0	0.0	21.16	<0.001**
4-I am capable of diverting my mind from the things that might worry me	8	20.0	12	30.0	7	17.5	13	32.5	0	0.0	5	12.5	16	40.0	19	47.5	19.00	<0.001**
5-I think other people are better off than me	2	5.0	12	30.0	12	30.0	14	35.0	0	0.0	0	0.0	23	57.5	17	42.5	16.00	<0.001**
7-I feel that my life is worthless	8	20.0	13	32.5	12	30.0	7	17.5	0	0.0	1	2.5	28	70.0	11	27.5	20.57	<0.001**
8- My mind is as clear as it used to be	3	7.5	10	25.0	21	52.5	6	15.0	1	2.5	3	7.5	25	62.0	11	27.5	9.30	<0.002*
9- I am able to face possible misfortunes that can come across my life	5	12.5	8	20.0	6	15.0	21	52.5	9	22.5	26	65.0	1	2.5	4	10.0	23.14	<0.001**
11-I am able to control my anger	4	10.0	7	17.5	24	60.0	5	12.5	1	2.5	1	2.5	28	70.0	10	25.0	20.00	<0.001**
13-I feel downhearted and blue	4	10.0	8	20.0	18	45.0	10	25.0	6	15.0	28	70.0	6	15.0	0	0.0	23.00	<0.001**
15-I feel helpless	0	0.0	4	10.0	23	57.5	13	32.5	6	15.0	10	25.0	17	42.5	7	17.5	12.25	<0.001**
16-I am bothered by thoughts which I can't get out of my head	7	17.5	14	35.0	7	17.5	12	30.0	0	0.0	5	12.5	19	47.5	16	40.0	16.20	<0.001**
24-I have self-confidence	12	30.0	14	35.0	8	20.0	6	15.0	0	0.0	3	7.5	28	70.0	9	22.5	21.55	<0.001**
16-I am bothered by thoughts which I can't get out of my head	7	17.5	14	35.0	7	17.5	12	30.0	0	0.0	5	12.5	19	47.5	16	40.0	16.20	<0.001**
24-I have self-confidence	12	30.0	14	35.0	8	20.0	6	15.0	0	0.0	3	7.5	28	70.0	9	22.5	21.55	<0.001**

Table 3. Comparison between the physiological area of stress for elderly people in geriatric homes pre and post program (N=40)

Items	Pre program								Post program								X2	P- value
	Never		Rarely		Sometimes		Almost		Never		Rarely		Sometimes		Almost			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
12- I get restless and fidgety	2	5.0	12	30.0	15	37.5	11	27.5	0	0.0	0	0.0	23	57.5	17	42.5	17.00	0.001**<
14- I feel comfortable about myself	6	15.0	7	17.5	19	47.5	8	20.0	9	22.5	29	72.5	2	5.0	0	0.0	24.14	0.001**<
18-I am satisfied with my health	2	5.0	17	42.5	15	37.5	6	15.0	6	15.0	33	82.5	1	2.5	0	0.0	20.57	0.001**<
22- I feel miserable	1	2.5	9	22.5	22	55.0	8	20.0	0	0.0	1	2.5	25	62.5	14	35.0	14.00	0.001**<

Table 4. Comparison between the social area of stress for elderly people in geriatric homes pre and post program(N=40)

Items	Pre program								Post program								X2	P- value
	Never		Rarely		Sometimes		Almost		Never		Rarely		Sometimes		Almost			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6-I feel lack of interest in social matters or attending social gatherings	4	10.0	14	35.0	17	42.5	5	12.5	2	5.0	30	75	8	20.0	0	0.0	8.04	0.005*<
17- I am troubled by the feeling of inferiority	3	7.5	9	22.5	20	50.0	8	20.0	9	22.5	28	70.0	3	7.5	0	0.0	23.51	0.001**<
19- I am getting irritable and aggressive towards others without sufficient reason	4	10.0	15	37.5	8	20.0	13	32.5	6	15.0	33	82.5	1	2.5	0	0.0	20.16	0.001**<
20- I feel comfortable when others support me	1	2.5	7	17.5	9	22.5	23	57.5	0	0.0	1	2.5	12	30.0	27	67.5	7.36	0.007*<
21-I get relief of worries by talking with others	0	0.0	5	12.5	18	45.0	17	42.5	0	0.0	0	0.0	13	32.5	27	67.5	15.00	0.001**<
25-I find it difficult/hesitant to talk with others	10	25.0	14	35.0	3	7.5	13	32.5	18	45.0	21	52.5	1	2.5	0	0.0	17.19	0.001**<

* Statistically significant ** highly statistically significant

Table 5. Comparison between the spiritual area of stress for elderly people in geriatric homes pre and post program(N=40)

Items	Pre program								Post program								X^2	P- value
	Never		Rarely		Sometimes		Almost		Never		Rarely		Sometimes		Almost			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
10- I like to involve in spiritual activities	5	12.5	9	22.5	16	40.0	10	25.0	0	0.0	1	2.5	19	47.5	20	50.0	10.88	<0.001**
23- I do not find relief of worries by praying	5	12.5	7	17.5	16	40.0	12	30.0	7	17.5	29	72.5	4	10.0	0	0.0	25.00	<0.001**

** Highly statistically significant.

Table 6. Number and percentage distribution of the stress level for the elderly people in geriatric homes in pre and post program (N=40)

Items	Pre program		Post program		X^2	P-value
	N	%	N	%		
Psychological area						
Mild	17	42.5	35	87.5	20.16	
Moderate	10	25.0	5	12.5		<0.001**
Severe	13	32.5	0	0.0		
Physiological area						
Mild	17	42.5	39	97.5		
Moderate	21	52.5	1	2.5	22.00	<0.001**
Severe	2	5.0	0	0.0		
Social area						
Mild	22	55.0	40	100.0		
Moderate	9	22.5	0	0.0	18.00	<0.001**
Severe	9	22.5	0	0.0		
Spiritual area						
Mild	8	20.0	36	90.0		
Moderate	18	45.0	3	7.5	28.00	<0.001**
Severe	14	35.0	1	2.5		
Total						
Mild	15	37.5	39	97.5		
Moderate	14	35.0	1	2.5	22.15	<0.001**
Severe	11	27.5	0	0.0		

** Highly statistically significant.

Table 7. Relation between Socio-demographic characteristics and stress level for elderly people in geriatric homes (N=40)

Socio demographic data	Mild		Moderate		Severe		X2	P
	N	%	N	%	N	%		
Age								
60<65	1	6.7	1	7.1	0	0.0		
65<70	1	6.7	2	14.4	3	27.3		
70<75	5	33.2	5	35.7	3	27.3	5.15	>0.05 [n.s]
75<80	4	26.7	1	7.1	1	9.1		
80<85	4	26.7	5	35.7	4	36.3		
Sex								
Male	6	40.0	7	50.0	7	63.6	1.41	>0.05 [n.s]
Female	9	60.0	7	50.0	4	36.4		
Marital status:								
Single	1	6.7	2	14.3	0	0.0		
widowed	13	86.6	12	85.7	9	81.8	4.45	>0.05 [n.s]
Divorced	1	6.7	0	0.0	2	18.2		
Educational level								
Illiterate	3	20.0	2	14.3	1	9.1		
Read and write	3	20.0	6	42.9	3	27.3	2.60	>0.05 [n.s]
Secondary education	7	46.7	5	35.7	6	54.5		
University	2	13.3	1	7.1	1	9.1		

n.s not statistically significant at >0.05.

4. Discussion

Imagery is the most fundamental language we have. Everything we do, the mind processes through images. Imagery is the language that the mind uses to communicate with the body. When we recall events from our past or childhood, we think of pictures, images, sounds, pain, etc. It is hardly ever be through words. Images and other senses are the means used by the brain to communicate with our other organs. Imagination can be a powerful tool to help combat stress, tension, and anxiety. Imagining being in a certain environment or situation can activate the senses, producing a physical or psychological effect [9].

The result of the present study revealed that, as regard the elderly people age more of them between 70-75. This is may be due to the people in this age need more of care and need support and interest from others. Concerning the marital status most of the elderly people were widowed. This is may be due to that the majority of the studied sample were increased in the old age and this lead to bring them to geriatric homes (loss of spouse). In relation to the educational level, the present study showed that the majority of the elderly people had a secondary education, These findings were similar to the study done by Antony [10] found that more than half of the studied group had middle school education. As regard to the residence, all of the studied sample was from urban. This may be due to the life in urban differ from rural life where elderly people in urban setting less interested and caring for them, where everyone life is specific way separated from old age habits.

The present study reveals that there are statistically significant differences and highly statistically differences between psychological areas of stress on the elderly people pre and post program. It may be due to guided imagery in a healthy direction, we can evoke positive changes throughout the body, elderly often feel empowered when they actively participate in their recovery. And process imagery can increase the elderly inner healing resources

of self-esteem and Independence. These findings, in agreement with Antall & Kresevic, [11] found that the guided imagery had appositive effect for decreased anxiety and decreased length of stay.

This similar to Baird & Sands, [12] found that the guided imagery with relaxation help to improve health-related quality of life in women with osteoarthritis and the guided imagery with relaxation may be an easy-to-use self-management intervention to improve the quality of life of older adults with osteoarthritis.

In agreement with, Baider et al., [13] found that Progressive muscle relaxation with guided imagery was given to decrease psychological distress and increase the client's sense of internal control. Results showed that behavioral intervention decreased psychological distress in cancer patients. On the same line, Jacob [8] found that there was statistically reduction in stress in Psychological areas for the patient with chronic renal failure. And the maximum difference in pre-test and post-test mean Stress score among Groups was seen in the psychological area.

These findings is similar to Tsay &Lee, [14] who found that the guided imagery as adaptation training program had a beneficial effect on perceived stress, depression and quality of life 3 months after the intervention.

Also, This is similar to Richardson, [15] who found that the guided imagery was effective in improving the sleep and psychological status of older adults, with men responding immediately to relaxation and imagery with improved sleep and psychological status, and women taking more time to respond to the intervention.

These findings in disagreement with Abraham et al., [16] who showed that the lack of the guided imagery's effect on residents' psychological well-being is consistent with study in which a 24-week guided imagery intervention failed to reduce depression, hopelessness, or life dissatisfaction in a group of nursing home residents. These authors deduced that the nursing home residents may have been too physically and mentally frail to reap the benefits of guided imagery.

The result of the present study, revealed that highly statistically significant differences between pre and post program in all items of physiological area of stress for the elderly people, It could be due to Guided imagery is a frequently used relaxation intervention based on imagination. It works on the principle of mind body connection. Conditions that are caused by or aggravated by stress often respond very well to imagery techniques. The emotional aspect of any illness can often be helped through imagery, and relieving the emotional distress may in turn encourage physical healing. Imagery in healing is best known for its direct effect on physiology. Through imagery, one can stimulate changes in many body functions usually considered inaccessible to conscious influence.

These findings In agreement with, Mannix et al., [17] found that there was a significant reduction in headache activity in the imagery group at post treatment while control subjects increased headache activity and placebo subjects showed no change.

As well, it is in line with, Cohen, [18] mentioned in their exploratory investigation that was conducted to investigate the effects of guided imagery on elderly people suffering from allergic symptom. Nasal challenges were performed before and after guided imagery showed significant change.

In this respect, Tusek et al., [19] these authors found that the guided imagery is a cognitive technique that teaches individuals to use their own imagination to influence psychological and physiological states .

These findings in agreement with Choojaturo et al., [20] Studies reporting positive outcomes with older adults have used guided imagery to manage acute, procedural, or postoperative pain (e.g.,. In these studies, the guided imagery served as an active coping strategy for a circumscribed period of recovery.

Also, the study revealed there are statistically and highly statistically significant differences between pre and post program in all items of the social and spiritual areas of stress for the elderly. This may be because the guided imagery is a cognitive process that evokes and uses many senses: sight, sound, smell, taste, and touch and also the senses of movement. All of these senses together produce regenerative changes in the mind and body.

It is in agreement with Sloman, [21] indicated that guided imagery was effective in individuals with a variety of illnesses. Conducted a community-based nursing study in 56 people with advanced cancer. Progressive muscle relaxation and guided imagery training revealed significant decreases in depression. Similarly, Campbell and Gillies, [22] who used a program including positive mental images and music with 45 women with breast cancer. Her findings revealed that guided imagery decreased depression and anxiety over a six-cycle period.

Additionally, Kolcaba and Fox, [23] assessed the effects of guided imagery for increasing comfort over time in patients with breast cancer going through radiation therapy.

Also, the present study documents that, there are highly statistically significant differences pre and post program mean scores of the elderly people stress level. We can conclude that there is a significant reduction in the stress level after using guided imagery. This is may be due to the Stress management focuses on reducing the secretion of catecholamine which destroys the balance of the immune system. Mental imagery, by altering brain biochemistry, may influence or alter the immune system cells. The daily sessions of the guided imagery makes heavy use of the imagery in changing the participant's perceptions of the stress through cognitive/imagery restructuring.

This finding in congruence with, Jacob, [8] found that chronic renal failure patients were experiencing mild to severe stress. But after sessions of guided imagery the patients were experiencing mild stress.

Also, the result of the present study revealed that there are not statistically significant relation between socio-demographic data of the elderly adults and their stress level. On the same line, Carol et al., [24] found that there were no significant group differences in the baseline characteristics of age, gender, marital status, education, economic status, race. Jacob, [8] shows that there was no significant relationship between in level of stress and demographic variables such as age, sex, marital status, income and family responsibility.

5. Conclusion

Elderly in geriatric homes at Benha city and Mansoura city had significant reduction in the level of stress after the Practice of guided imagery**.**

6. Recommendation

Practice of guided imagery can be introduced in the inpatient and outpatient settings of the hospital, before, during and after various medical procedures.

Guided imagery can be made a part of daily routine of students and staff, which would help them to overcome their academic stress.

Study can be carried out to find out the effectiveness of guided imagery on the occupational stress of employees of different fields.

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