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A Study to Determine the Effectiveness of Laughter Therapy in Reduction of Depression among Elderly People at Selected Old Age Homes in Amritsar, Punjab

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Abstract

Laughter is beneficial for one's health. The study of humor and laughter and its psychological and physiological effects on the human body is called Glottology. WHO reports highlighted that there are currently about 6000 million elderly person. In India there are 76 million elderly people constituting 7.7% of the total population. These data represent a demographic revolution and require the immediate attention to challenge and opportunities. The disease process has two components, one is the organic disease itself and the second is the mental component in the form of anxiety, depression, and fear. Laughter therapy plays a major role in treating some kinds of mental illness like depression, anxiety disorders, sleep disorders, post-traumatic stress disorder, and pain management. Quasi experimental design has been adopted for the study to evaluate effectiveness of Laughter therapy. The sample size is the 60 elderly people above the age of 60 years. Convenient sampling technique has been adopted for the conduction of study. The data have been analyzed by using descriptive and inferential statistics.

An interventional study was carried out to assess the effectiveness of laughter therapy on reduction of depression among elderly people at selected old age homes Amritsar, Punjab. The aim of the study is to evaluate the effectiveness of laughter therapy in reduction of depression among elderly people in selected old age home Amritsar. The objectives of the study were (1) to assess the pretest level of depression regarding the experimental and control group; (2) to provide laughter therapy to experimental group; (3) to assess the post-test level of depression regarding the experimental and control group; (4) to find out the effectiveness of laughter therapy regarding the experimental and control group; and (5) to find out the association between depression among the elderly people and selected demographic variables. The research approach was experimental and evaluative in nature. The samples were 60 elderly people (30 experimental and 30 control group) extracted by using probability purposive random-sampling technique and the instrument used to measure their level of depression with Lesher EL, Berry hill JS standardized modified depressive scale against which both groups were assessed before and after implementation of laughter therapy. After imparting laughter therapy for 40 days data were analyzed by using descriptive and inferential statistics. The statistical technique used for analysis was descriptive (mean, SD) and inferential (paired t-test, Chi-square, SE). The results shown that significant difference is observed among experimental group in the level of depression as pre-test and the post-test mean score 25.33, SD ± 1.971 and 17.50, SD ± 4.91. For control group pre- and post-test mean score are, SD ± 1.680 and SD ± 4.63, which shows no significant change in level of depression scores among control group.

In experimental group the calculated paired "t-test" value is 12.175 which is greater than table value at the probability level of 0.05. Therefore, it is proved that laughter therapy has significantly reduced depression level at significantly among experimental group than control

group. The study concluded that laughter therapy is an effective method to cope with depression, which can easily incorporate into our daily life so quality of life can be improved. Recommendations based on study findings are-A similar study may be undertaken with a large sample to generalize the findings, replication of study may be undertaken among rehabilitative psychiatric patients to enhance their mental well-being, a qualitative study may be conducted to find out the personal experiences of the persons who are practicing laughter therapy from decades, other complementary therapies may also be studied for their effectiveness in various health problems and meta-analysis of study should be done to assess efficiency of laughter therapy from various studies.

Keywords: effectiveness, laughter therapy, old age

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INTRODUCTION

"*Cherish all your happy moments, they make a fine cushion for old age.*"
Booth Tarkington

Change is the law of nature. Sun rises in the morning and sets in the evening. Similarly aging is a natural process of human life. As every high tide is followed by low tide similarly every person has to face the grey shade of life. Old age is an incurable disease which is considered as an inevitable biological phenomenon.

Many changes have to be faced by people as they grow old such as retirement, death of life partner and loved ones, increased isolation or medical problem which can leads them to depression. Depression is a common problem in advancing years which causes enormous human suffering and interferes with the normal day-to-day life.[1]

In old times the elderly people were treated with special respect and regard because they were known for their wisdom and experience. They were well versed with the ground realities and techniques of how to tackle problems. But now-a-days this enriched chunk of our society is treated as a junk or unproductive organ because no one is interested in them. They are considered outdated, old fashioned and obsolete assets of modern society.

Every system has its own merits and demerits. The modern society has provided a lot of physical comforts and facilities to old age people and side by side it has also created a such environment in which the old persons have become more isolated and unattended. The busy schedule of young couples and lack of interaction with elders, generation gap, modernization and urban culture, nuclear family system, financial constraints are the major responsible factors of this problem. In modern life, a caring and sharing relationship with elderly people is absent. Now parents are not taken care of by their children. They are kept in old age homes which in turn add to their feelings of depression, loneliness and insecurity. Depressive symptoms are the state of low mood and aversion to activity that can affect a person's thoughts, behavior, feelings and physical well-being. Depressed people may feel sad, anxious, empty, hopeless, helpless, worthless, guilty, irritable, and restless.[2–5]

LAUGHTER

"Motion Creates Emotion" according to this principle we can laugh freely irrespective to any mood or situation. It

has been noticed that a child laughs between 300 and 400 times in a day and we elder person laughs only 15 times in a day. Why there is a huge difference between laughing frequencies? The reason is simple that we laugh on a particular situation, in a particular mood or in other words we laughs only by brain. Children are playing and laughing altogether. Both the activities go parallel without any interruption because they laugh not by the brain but by the body. When we are performing the same activity without any consideration or hesitation, then the results would be very positive. Lord Sri Krishna saying in Srimad Bhagwat Gita, "that when our happiness is dependent on outer thing. Then the span happiness is very short. As the situation changes happiness immediately converted into sorrow."

In a Laughter therapy, we do not care about the things of happiness. We just perform laughter exercise with jolly mood. Under gone the laughter therapy people said that now they fell more free and relaxed. Their attitude toward odd situations are more positive. They feel more energetic. It has reduced their depression level and now they can also enjoy the sound sleep.[2]

Laughter therapy plays an important part in curing different kinds of mental illness like sleep disorders, depression, post-traumatic stress disorder, anxiety disorders, pain management, and asthma, etc.

A good hearty laughter makes the individual avoid stress, worry, and depression. It affects the emotional foundation and improves feelings along with being the solution for good health. Laughter creates positive beliefs and decreases the negative strains. Laughter connects people together and proliferates happiness and intimacy. Emotional connection is one of the most significant factor against depression in old age people. In addition to the domino effect of joy and pleasure, laughter also generates healthy physical modifications in the body. It improves immune system, booster energy, diminish pain, and protects from the damaging effect of stress.

Major symptoms of depression are persistent sad, anxious, feeling of guilt, worthlessness, helplessness, loss of interest, loss of appetite, irritability, difficulty in concentrating, forgetfulness, digestive disorder, chronic pain, etc.

NEED OF THE STUDY

Laughter therapy is a powerful stimulation that is highly essential to treat depression, as it has the power to trigger body physically, physiologically, mentally, and emotionally.

Depression is a very expensive condition with respect to both economic and human terms. Every year businesses in USA had to lose 15–35 billion dollars due to depression. This includes medical treatment, missed workdays, decreased productivity, and increased worker turnover. Although businesses lose huge sums of money, people probably lose more, especially if their depression continues untreated. Depression leads to substance abuse, destroys careers and relationships, and wrecks a person's self-esteem.

An epidemiological report from rural Uttar Pradesh showed that psychiatric morbidity in the elderly group (43.32%) was higher than in the non-elderly group (4.66%). Usually psychiatric morbidity includes neurotic depression, followed by manic-depressive psychosis depression, and anxiety state. Psychiatric morbidity was more dominant in those who were socially,

economically, and educationally deprived. Community-based studies have reported a prevalence rate of 21.7–45.9%.

Depression in elderly deteriorates the consequences of many medical illness and increases mortality. Environmental factors, such as isolation, care giving and grief, further add to more vulnerability to depression or causing depression in already vulnerable elderly people. Appropriate remedy of depression in elderly decreases such symptoms, averts suicidal ideation, enhances intellectual and functional condition in order to improve the recovery of a good quality of life, as well as the mortality.

Laughter therapy merges unconditional Laughter with Yogic Breathing (Pranayama). Anyone can laugh for No Reason, without depending on humor, jokes or comedy. Laughter is created as a body exercise in a group; with eye contact and childlike playfulness, it soon turns into real and contagious laughter. The concept of Laughter therapy is based on a scientific fact that the body cannot differentiate between fake and real laughter. One gets the same physiological and psychological benefits. It was made accepted as a practice developed by Indian physician Dr. Madan Kataria. Dr. Kataria writes about the practice in his book "Laugh For No Reason."[2]

There are lots of routines available for our body muscles, but laughing offers a good massage to all internal organs. It improves the blood supply and boosts efficiency. Humor and laughter are efficient self-care tool to handle depression. Capacity to find humor gives a sense of perception on our problem. Laughter offers relief from collective tensions. Therefore, the researcher decided to undertake this research topic to assess the effectiveness of laughter therapy to reduce the level of depression among elderly people.

AIM OF STUDY

To evaluate efficacy of laughter therapy in decreasing depression amongst elderly people

OBJECTIVES

(1) To assess the pretest level of depression regarding the experimental and control group.
(2) To administer laughter therapy to experimental group.
(3) To assess the post-test level of depression regarding the experimental and control group.
(4) To find out the effectiveness of laughter therapy regarding the experimental and control group.
(5) To find out the association between depression among the elderly people and selected demographic variables.

ASSUMPTIONS

Study assumes that:
(1) Elderly people in old age home will have some level of depression
(2) Laughter therapy will reduce the level of depression among the elderly.

DELIMITATIONS

(1) The study will be restricted to six weeks period of data collection.
(2) The study will be limited to the elderly aged above 60 years of age.
(3) The study will be limited to the subjects who are staying at selected old age homes.
(4) The study will be restricted to the subjects who are willing to participate in Laughter therapy.

METHODOLOGY

Research Approach

The main objective of study is to evaluate the effectiveness of laughter therapy on reduction of depression among elderly people. So, in this interventional study and evaluative research approach was used to assess effectiveness of laughter therapy

techniques on depression level of elderly people.

Evaluative research approach is an applied form of research that involve finding out how well a manipulation, practice or policy is working. Here, its goal is to assess or evaluate the success of laughter therapy techniques. In the present study the researcher is aimed at evaluating the effectiveness of laughter therapy on level of depression among elderly people at selected old age homes in Amritsar.

RESEARCH APPROACH

Assess pre and post-test level of depression among experimental and control group by using Lesher EL, Berryhill JS standardized modified depressive scale. Find effectiveness by using t test finding the association between demographic variables and post-test level of depressive scores by using Chi-square test.

Research Design

It is blue print of study that maximize control over factors that could interfere with the validity of findings. It provides a path for carrying out the study. It is overall plan for addressing a research question, including specification of enhancing the integrity of study. Selection of research design depends on purpose of study as this study aimed to assess the effectiveness of laughter therapy on depression level of elderly people. As this study includes manipulation, randomization and control, so, experimental research design was adopted. In that an experimental study with pre-test and post-test control group will be adopted

Demographic variables-age, gender, marital status, number of children, source of income, cause of staying old age home.

Level of Scores for depression

Normal = 0–9 (0–2.7%)

Mild depression = 10–15 (3–4.5%)

Moderate depression = 16–20 (4.82–6%)

Severe depression = 21–30 (6.3–9%)

Variables

Variables are a characteristic or attitude of a person or an object that varies with in the population under study.

Independent Variables

Independent variable is the variable that has presumed effect on the dependent variable. In this study, laughter therapy technique is the independent variable.

Dependent Variables

The dependent variable is a response, behavior or outcome of that the researcher is interested in understanding, explaining or predicting changes in the dependent variable presumed to be caused by independent variable. In this study, it refers to level of depression among elderly people in selected old age homes, Amritsar.

Research Settings

Research setting refers to the physical location and condition in which data collection takes place for the study. Feasibility of conducting the study, economy of time, money, and availability of subject is taken into consideration in selecting the area where the study is conducted. It may be natural setting or laboratory setting depending upon the study topic and researcher's choice. The study is conducted in selected old age homes in Amritsar after getting permission from their respective presidents/chairman.

Target Population

A target population consists of the total number of people or objects which are meeting the designated set of criteria. In other words, it is the aggregate of all the cases with a certain phenomenon about which the researcher would like to make a generalization. In this study target

population is elderly people above 60 years of age.

Sample

According to Burns and Grove (1997) Sampling is the process of selecting a group of people, events, behavior or other elements with which to conduct a study. Polit and Hungler (1995) state that sample is a subject of population selected to participate in a research study.[5–8] Sample in this study are all elderly people above 60 years of age in selected old age homes.

Sampling Techniques

Burns and Grove (1997) state that sampling technique is a strategy in which the researcher's knowledge of the population and its elements were used to select sample, which are typical to the population. The samples for study were selected by purposive sampling technique. Sample size is 60 clients, 30 clients for each experimental and control group. Probability simple random sampling technique.

Inclusion Criteria and Exclusion Criteria

Inclusion criteria are stated that which is the part of study or included in the study to collect data. Exclusion criteria are that which is excluded from the study.

Inclusion Criteria

(1) Elderly people with age group above 60 years.
(2) Elderly people including both male and female.
(3) Elderly people those who are willing to participate in the study.
(4) Elderly people who know Hindi or Punjabi.

Exclusion Criteria

(1) Elderly people who are suffering from mental disease.
(2) Elderly people who are not available at the time of data collection.
(3) Elderly people who are physically challenged.

ANALYSIS AND INTERPRETATION

***Section I*:** Description of demographic characteristics of study samples.

***Section II*:** To assess the level of depression among elderly people of experimental and control group before implementation of laughter therapy.

***Section III*:** To assess the level of depression among elderly people of experimental and control group after implementation of laughter therapy.

***Section IV*:** To determine the effectiveness of laughter therapy on level of depression among elderly people.

***Section V*:** To find out the association of post laughter therapy, level of depression with selected demographic variables among elderly people.

Table 1 shows demographic characteristics of experimental and control group as. According to their age shows that in Experimental group 30% were 60–65 years, 40% were 66–70 years, 30% of the elderly people were in the age group of 71 and above years. Similarly among control group 37.7% of were 60–65 years, 40% were 66–70 years old, 23.3% were of 71 and above years of age. Thus, it can be interpreted that highest percentage was in the age group of 66–70 years among both groups. According to their gender shows those in experimental group 36.7% of elderly people were in male and 63.3% were in female. Similarly among control group 46.7% of elderly people were in male and 53.3% were in female.

According to their marital status shows that in experimental group 23.3% of elderly people were married, 70% of elderly people were widow, and 6.7% of elderly people were divorcee. Similarly in control group 50% of elderly people were married, 36.7% were widow, and 4% of

elderly people were in divorcee in the old age home. According to number of children in family shows that in experimental group 13.3% of elderly people have no children, 26.7% of elderly people have one child, and 60% of elderly people have more than 2 children. Similarly among control group 20% of elderly people have no children, 20% of elderly people have one child, and 60% of elderly people have more than 2 children. Distribution of elderly peoples according to their source of income of family among experimental group reveals that 66.7% elderly people have source of income is pension and same 20% have source of income is savings, 13.3% of them have other source of income. Similarly among control group highest percentage 40% of elderly people have source of income is pension and savings, 20% of them have other source of income. According to their cause of living in old age home shows that in experimental group 80% of elderly people were not having family problem and 13.3% elderly people had chronic illness and 6.7% of elderly people have no issue. Similarly among control group 36.7% of elderly people were having family problem and 43.3% had history of chronic illness and 20% of elderly people have no issues.

Table 1. *Frequency and Percentage Distribution of Demographic Variables Among Elderly People of Experimental and Control Group. Experimental = 30 Control = 30, N = 60.*

Sr. no	Demographic variables		Group				Total	
			Experimental		Control		N	%
			N	%	N	%		
1	Age (in years)	60–65	9	30	11	36.7	20	33.3
		66–70	12	40	12	40	24	40.0
		71 Above	9	30	7	23.3	16	26.7
2	Gender	Male	11	36.7	14	46.7	25	41.7
		Female	19	63.3	16	53.3	35	58.3
3	Marital status	Married	7	23.3	15	50	22	36.7
		Widow	21	70	11	36.7	32	53.3
		Divorcee	2	6.7	4	4	6	10.0
4	Number of children	No children	4	13.3	6	20.0	10	16.7
		One	8	26.7	6	20.0	14	23.3
		2 and above	18	60.0	18	60.0	36	60.0
5	Source of income	Pension	20	66.7	12	40.0	32	53.3
		Savings	6	20.0	12	40.0	18	30.0
		Other	4	13.3	6	20.0	10	16.7
6	Cause of living in old age home	Family problem	24	80	11	36.7	35	58.3
		Chronic illness	4	13.3	13	43.3	17	28.3
		No issue	2	6.7	6	20.0	8	13.3

Table 2. *Frequency and Percentage Distribution Level of Depression Among Experimental Group Before Intervention of Laughter Therapy, N=60.*

Level of reduction of depression	Grading		Experimental group		Control group	
	Scores	Percentage (%)	Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
Normal	0–9	0–2.7	–	–	–	–
Mild	10–15	3–4.5	–	–	–	–
Moderate	16–20	4.82–6	–	–	1	3.3
Severe	21–30	6.3–9	30	100	29	96.7
Total	30	100	30	100	30	100

Table 2 shows that in experimental group higher percentage of elderly people 100% have severe level of depression. Similarly in control group the percentage of elderly people 3.3% have moderate level of depression and 96.7% have severe depression. Hence, it can be interpretated that among experimental group higher

percentage of elderly people (100%) have severe level of depression than control group where only (96.7%) have severe level of depression before implementation of laughter therapy.

Table 3. *Mean, Standard Deviation and Mean Percentage of Pre-test Depression Level of Experimental and Control Group, N=60.*

Group	Depression scores		
	Mean	SD	Mean (%)
Experimental	25.33	1.971	38.88
Control	24.07	1.680	40.11

Table 3 shows that in experimental group mean pre-tested expression score of experimental group before laughter therapy were 25.33 (SD ± 1.971) and mean percentage 38.88%.

Similarly in control group mean pre-test depression score of control group before laughter therapy were 24.07 (SD ± 1.680) and mean percentage 40.11%. It can be interpreted that mean pre-test depression score and mean percentage of experimental group is higher than mean and mean percentage of control group.

SECTION III

To Assess the Level of Depression among Elderly People of Experimental and Control Group After Intervention of Laughter Therapy

Table 4. *Frequency and Percentage Distribution of level of Depression Among Experimental and Control Group After Intervention of Laughter Therapy, N=60.*

Level of Reduction of depression	Grading		Experimentalgroup		Control group	
	Scores	Percentage(%age)	Frequency(F)	Percentage(%age)	Frequency(F)	Percentage(%age)
Normal	0–9	0–2.7	3	10	3	10
Mild	10–15	3–4.5	9	30	4	13.3
Moderate	16–20	4.82–6	10	33.3	4	13.3
Severe	21–30	6.3–9	8	26.7	19	63.3
Total	30	100	30	100	30	100

Table 4 shows that in experimental group majority of elderly people (3) 10% have normal and only (9) 30% have mild level of depression 10 (33.3%) has moderate level of depression and 8 (26.7%) severe level of depression after implementation of laughter therapy. Whereas in control group majority of elderly people (19) 63.3% have severe level of depression and (4) 13.3% have moderate and mild level of depression and (3)10% of elderly people free from depression.

It shows among experimental group before implementation of laughter therapy 30 elderly people (100%) were having severe depression which reduced after laughter therapy as after implementation of laughter therapy (3) 10% of elderly people have free from depression, (9) 30% elderly people were having mild depression and only (10) 33.3% elderly people were having moderate level of depression 8(26.7) elderly people having severe depression.

Table 5. *Mean, Standard Deviation and Mean Percentage of Post-test Level of Depression Among Experimental and Control Group, N=60.*

Group	Depression scores		
	Mean	SD	Mean (%)
Experimental	17.50	4.91	29.16
Control	18.63	4.63	31.05

Table 5 shows that mean depression score of experimental group after laughter therapy is 17.50 (SD ± 4.91) and mean percentage 29.16%. It also shows that in control group mean depression score of control group is 18.63 (SD ± 4.63) with mean percentage 4.63 after implementation of laughter therapy mean

percentage 31.05%. Hence, it can be interpretated from above table that there is significant reduction in mean and mean percentage of experimental group than control group after implementation of laughter therapy techniques to experimental group.

SECTION IV
To Determine the Effectiveness of Laughter Therapy on Level of Depression among Elderly People

H_1: The mean post-test level of depression score of the experimental group among elderly people is significantly lesser than their mean pre-test level of depression score.

To assess the effectiveness of laughter therapy on reduction of depression among elderly people regarding the effectiveness of laughter therapy among elderly people (Table 6).

Table 6. *Effectiveness of Laughter Therapy on Depression Among the Experimental Group.*

Group	N	Pre test		Post test		Diff
		Mean	SD	Mean	SD	
Experimental	30	25.33	1.971	17.50	4.91	7.83

t-test

Group	N	Mean		SD		SE	*t*-value	Table value 0.05	Table value 0.01
		Pre-test	Post-test	Pre-test	Post-test				
Experimental	30	25.33	17.50	1.971	4.91	0.643	12.175	2.05	2.76

12.175 > 2.05 OR 2.76 Significant.

SECTION V
To Find Out the Association of Post-laughter Therapy Level of Depression With Selected Demographic Variables Among Elderly People

This section deals with association between the levels of depression during post-test of experimental group with respect to their demographic variables. The cross tabulation analysis was employed effectively and the results of chi square analysis were observed and shown in Table 7.

Table 7. *Association Between the Levels of Depression During Posttest of Experimental Group With Respect to Their Demographic Variables, N=30.*

Sr no.	Demographic variables	Total frequency	Level of depression								Chi-square(x^2)	Df	Table value	*p*-value
			Normal		Mild		Moderate		Severe					
			F	%	F	%	F	%	F	%				

1	**Age (in years)** 60-65 66-70 70 Above	 12 11 7	 2 2 1	 6.67 6.67 3.33	 6 3 1	 20 10 3.33	 1 2 4	 3.33 6.67 13.3	 3 4 1	 10 13.3 3.33	28.33	6	12.59	P ≤ 0.05(S)
2	**Gender** Male Female	 9 6	 2 3	 6.67 10	 2 6	 6.67 20	 3 6	 10 20	 4 4	 13.3 13.3	4.51	3	7.82	p ≤ 0.05 (NS)
3	**Marital status** Married Widow Divorcee	 7 20 3	 1 3 0	 3.33 10 0	 3 6 1	 10 20 3.33	 1 6 1	 3.33 20 3.33	 2 5 1	 6.67 16.6 3.33	40.28	6	12.59	*p* ≤ 0.05 (S)
4	**Number of children** No child one Two and more	 4 8 18	 1 2 4	 3.33 6.67 13.3	 1 2 5	 3.33 6.67 16.6	 1 2 4	 3.33 6.67 13.3	 1 2 5	 3.33 6.67 16.6	21.61	6	12.59	*p* ≤ 0.05 (S)
5	**Source of income** Pension Saving Other sources	 20 6 4	 3 1 1	 10 3.33 3.33	 5 2 1	 1.66 6.67 3.33	 6 2 1	 20 6.67 3.33	 6 1 1	 20 3.33 3.33	68.42	6	12.59	*p* ≤ 0.05 (S)
6	**Cause of staying in old age home** Family problem Chronic illness No issue	 24 4 2	 3 1 0	 10 3.33 0	 6 1 1	 20 3.33 3.33	 3 1 0	 10 3.33 0	 12 1 1	 40 3.33 3.33	56.45	6	12.59	*p* ≤ 0.05 (S)

(NS) = nonsignificant, F = frequency, % age = percentage.

Table 8. *Association Between the Levels of Depression During Post-test of Control Group With Respect to Their Demographic Variables, N = 30.*

Sr.no	Demographic Variables	Total Frequency	Level of depression								Chi-square(x^2)	Df	Table value	p-value
			Normal		Mild		Moderate		Severe					
			F	%	F	%	F	%	F	%				
1	**Age (in years)** 60-65 66-70 70 Above	 12 11 7	 1 1 1	 3.33 3.33 3.33	 1 2 1	 3.33 6.67 3.33	 2 1 1	 6.67 3.33 3.33	 8 7 4	 26.6 23.3 13.3	61.67	6	12.59	p≤0.05 (S)
2	**Gender** Male Female	 14 16	 2 1	 6.67 3.33	 2 2	 6.67 6.67	 2 4	 6.67 13.3	 8 9	 26.6 30	19.3	3	7.82	p≤0.05 (S)
3	**Marital status** Married Widow Divorcee	 15 11 4	 2 1 1	 6.67 3.33 3.33	 3 3 1	 10 10 3.33	 4 2 1	 13.3 6.67 3.33	 6 5 1	 20 16.6 3.33	41.62	6	12.59	p≤0.05 (S)

4	**Number of children** No child One Two and more	6 6 18	1 2 2	3.33 6.67 6.67	2 1 2	6.67 3.33 6.67	2 1 4	6.67 3.33 13.3	1 2 10	3.33 6.67 33.3	6.67	6	12.59	p≤0.05 (NS)
5	**Source of income** Pension Saving Other sources	12 12 6	1 2 1	3.33 6.67 3.33	4 3 1	14.3 10 3.33	4 3 2	13.3 10 6.67	3 4 2	10 13.3 6.67	24.55	6	12.59	p≤0.05 (S)
6	**Cause of staying in old age home** Family problem Chronic illness No issue	11 13 6	1 2 1	3.33 6.67 3.33	1 1 1	3.33 3.33 3.33	1 7 2	3.33 23.3 6.67	8 3 2	26.6 10 6.67	50.93	6	12.59	p≤0.05 (S)

(S) = significant, (NS) = non-significant, F = frequency, %age = percentage.

Table 8 shows the significant association found between post test scores of depression among control group, at the level of ($p \leq 0.05$) and number of children is not significant.

CONCLUSION

This chapter deals with the conclusion drawn based on the findings of the study. The conclusion drawn was:

Pre-test findings showed that elderly people had moderate to severe depression when measured with Lesher EL, Berryhill JS standardized modified depressive scale which was related to various factors. Laughter therapy tested in the study was found to be effective in reducing depression and improving comfort of elderly people. Laughter therapy proved to be an effective method to cope with depression. Which can easily incorporated into our daily life and quality of life can be improved.

Implications

The findings of the study have implications in various areas of nursing practice, nursing educations, nursing administration, and nursing research.

NURSING PRACTICE

Being an important member of health care team, nurses have great responsibility and accountability to improve patient care. They need to provide cost effective and efficient interventions to enhance quality of patient's life. Nurses can learn and impart laughter therapy to patients as complementary therapy. In laughter therapy Patient can relax body and mind himself and free from depression. In regular practice of laughter therapy which will be helpful for patients in all settings.

So nurses in all setting can learn and impart laughter therapy for better nursing care and for betterment of patient's health.

NURSING EDUCATION

Laughter therapy training can be incorporated into various levels of nursing curriculum. The nursing students and nursing staff should get thorough knowledge regarding practice and benefits of laughter therapy, so that they can be more skilled in applying laughter therapy to cope with depression and can help to produce depression free community.

NURSING ADMINISTRATION

Nursing administrator being the most accountable person for maintaining high standard of nursing care should regularly arrange educational seminars, workshops and in service education programmes to keep the staff up to date with latest treatment modalities. As this study explores the effectiveness of laughter therapy, the nurse administrator should arrange laughter therapy training personnel to traine the nursing staff and students, so that they can enhance their competencies and standard of nursing care and improve the quality of patient life.

NURSING RESEARCH

This is an era of evidence based practice and hence to improve the quality of nursing care, continuity of the research should be imparted in the nursing field. This study produces evidence for effectiveness of laughter therapy which is a simple and cost effective technique. There are too many other complementary methods available which can enhance quality of life. The research committees of India should motivate this type of research studies for betterment of society.

LIMITATIONS

(1) The study was conducted on only elderly people so generalization to all peoples is not possible.

(2) The study was limited to selected old age homes of Amritsar, which limits the generalization of study.

(3) The study was conducted for time period, i.e., 40 days, which limits the scope of study.

(4) No follow-up was done for continuity of elderly people to practice laughter therapy.

(5) Lack of enthusiasm and involvement of participants limited the efficiency of study.

RECOMMENDATIONS

Based on the findings of study, the following recommendations are stated:

(1) A similar study may be undertaken with a larger sample to generalize the findings.

(2) Replication of study may be undertaken among psychiatric patients to enhance their mental wellbeing.

(3) A qualitative study may be conducted to find the personal experiences of persons who are practicing laughter therapy from decades.

(4) Other complementary therapies may also be studied for their effectiveness in various health problems.

(5) Meta-analysis study should be done to assess efficacy of laughter therapy from various studies.

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