A Study to Assess the Effectiveness of Laughter Therapy on Depression among Elderly People in Selected Old Age Home at Guwahati, Assam

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Abstract: _Background: Aging is a normal process of time related change, begins with birth and continues throughout life. Depression among elderly population being the most common treatable medical condition and is the most frequent causes of emotional distress in elderly. A good hearty laughter gets rid of stress, worry and depression. It touches the emotional core and alleviates feelings besides being the panacea for good health. Aim of Study: This study was done to assess the effectiveness of laughter therapy on depression among elderly people in selected old age home at Guwahati, Assam. Material and Method: In this present study quantitative research approach was used. Quasi experimental research design (Experimental and control Group).60 elderly people (30 in experimental and 30 in control group) were selected by using non probability purposive sampling technique. The Demographic performa and Geriatric Depression Scale (GDS) was used for data collection. Results: The finding of this study revealed that in experimental Group Pre test majority 14 (46.6%) of elderly had moderate depression where as post-test majority 16 (53.3%) had mild depression and in Control Group Pre-test majority of elderly 13 (43.3%) had moderate depression where as in Post-test majority of elderly 16 (53.3%) had moderate depression. There was significant association between Education and Post test level of depression in experimental group. So, the study can be concluded that laughter therapy is effective in reducing the level of depression of elderly. Conclusion: The study results concluded that laughter therapy were effective in reducing depression among elderly staying old age home._

Keywords: Effectiveness, laughter therapy, Depression, Elderly, Old Age Home

1. Introduction

"Laughter Is And Always Will Be The Best Form Of Therapy."

-Audrey Hefurn

Aging is a normal process of time related change, begins with birth and continues throughout life. Aging process is characterized by gradual decline in the functioning of all body's system.1Aging is a multi factorial process, which affects the human body on every level and results in both biological and psychological changes.2

Old age comprises "the later part of life, the period of life after youth and middle age, usually with reference to deterioration. " [3] Old age beginning cannot be universally defined because it differs according to the context. The united Nation has agreed that 65 + years may be usually denoted as old age and according to WHO set 55 as the beginning of old age.4

Depression is a alteration in mood expressed by feelings of sadness, despair and pessimism.5 Depression is one of the leading causes of disease burden and disability across all age groups.6 Depression among elderly population being the most common treatable medical condition and is the most frequent causes of emotional distress in elderly.7

A good hearty laughter gets rid of stress, worry and depression. It touched the emotional core and alleviates feelings besides being the panacea for good health. Laughter generates positive thoughts and reduces the negatives strain and help to cope with serious disease. It is a best of all this it's a priceless medicine.8

2. Background of the Study

In modern times, the meaning of the word family has gone down to a small family containing wife and children only. There is no place for parents, grandparents, uncles and aunties, brothers and sisters, cousins and nephews or nieces. Life is being so busy; most of the people are feeling that they don't have enough time to spend with their family members.

Saikia AM, Mahanta N, Saikia AM, Deka H, Boruah B, Mahanta R. conducted a study based on a community depression in elderly in Assam" from 1 June 2013 to 30th September 2013. This community based cross sectional study was conducted in 10 randomly selected wards of Guwahati city, Assam. Geriatric depression scale 15 was used in scoring for depression. the study results revealed that the prevalence of depression was found out of total 400 elderly interviewed, 69 (17.25%) were found to be depression GDS (15 items).9

The effective intervention in reducing depression in elderly is a combination of both biological and psychological intervention. Laughter therapy is one of the interventions which provides a good massage to all internal organs in reducing stress hormone level, increasing circulation and relaxing the muscle laughter therapy can make a person calm and comfortable.1[0]

Need of the study
Depressive disorders are the most common affective illness occurring after the middle years. The incidence of increased depression among elderly people is influenced by the variables of physical illness, functional disability, cognitive impairment and loss of a spouse.[11] Symptoms of depression are apathy, sadness, sleep disturbances, hopelessness, helplessness, worthlessness, guilt, fatigue, thoughts of death, decreased libido, dependency, spontaneous crying, passiveness.[5]

In India there are 7.7 million older people today, and number is growing to reach 177 million in another 25 year. Elderly are the most rapidly growing segment of population.[12] In India elderly population is currently the second largest in the world. Projection are being made that India will house 300 million elderly by 2050 and elderly will from 19% of total population.[13]

Hakmaosa A, **Baruah KK, Baruah R.** conducted a study on prevalence of depression among elderly In Rani block, Kamrup rural district, Assam. Study found that the prevalence of depression was found to 14.1%. The prevalence of depression had a significant association with age, education, socio economic status, marital status.[14]

The elderly people are mostly suffering from various psychological disturbances and there are various researches on various therapies on depression in elderly, but very few studies are conducted on laughter therapy on depression in elderly and the researcher identified that the depression among the elderly is very common and felt that laughter therapy will be effective in reducing depression among elderly.

Statement of the Problem
A Study To Assess The Effectiveness Of Laughter Therapy On Depression Among Elderly People In Selected Old Age Home At Guwahati, Assam.

Objectives of the Study

General Objectives
To assess the effect of laughter therapy on depression of elderly people in selected old age home.

Specific Objectives
- To assess the level of depression among elderly people.
- To administer and evaluate the effectiveness of laughter therapy on depression in experimental group.
- To compare the level of depression between experimental and control group.
- To find out the association between Post-test level of depression with selected demographic variables in experimental group.

Operational Definition
- **Effectiveness:** In this study it refers to the significant reduction in the level of depression among elderly as determined by significant difference in pre test and post test level of depression.
- **Laughter Therapy:** It refers to the use of laughter exercise to promote overall health and wellness. It aims to use the natural physiological process of laughter to reduce the depression. It is administered by the means of laughter exercise such as welcome laughter, breathing laughter, milky laughter, greeting laughter and hearty laughter.
- **Depression:** It refers to a disorder that affects a person's mood, physical functions and social interaction as measured by geriatric depression scale.
- **Elderly:** In this study it refers to the elderly men and women with depression residing in old age home who are 60 and above.
- **Old Age Home:** It refers to an institution providing a professional care to the elderly like their residential settings.

Hypothesis
All hypothesis are tested at 0.05 level of significance.
- H_1 = There is a significant difference in depression among elderly people before and after laughter therapy in Experimental Group.
- H_2 = There is a significant association between post test level of depression among elderly people with selected demographic variable in Experimental Group.

Assumption
- Most of the elderly persons may have depression.
- The elderly may not be aware about laughter therapy.
- Laughter therapy may reduce the depression level of the elderly.

Delimitation
The study is limited to
- 60 elderly persons (30 in experimental group and 30 in control group)
- Elderly persons in the age group of 60 and above years of age.
- Elderly who is staying in old age home at Guwahati.

Conceptual Framework
The conceptual framework for this study was adopted from Dorothea Orem's self care deficit theory.

3. Review of Literature

Section I: Study related to depression on elderly.

Laksham KB, R Selvaraj R, Kameshvell C. (2019) conducted a community based cross sectional study on depression and its determinants among elderly in selected villages of Puducheery. Systematic random sampling is done to selected households any person above the age of 60 years is considered as elderly. Geriatric Depression Scale short form questionnaire was used as a screening tool for depression. The study results revealed that among the 359 participants 57% were females. The mean age of the participants was 67.4 (59) years. The majority of them belonged to nuclear family (88%) had no formal education (62%) were unemployed (69%), currently married (68%), and receiving a pension (81%). The prevalence of depression among elderly age 60 years and above is 69 %. Study concluded that are the prevalence of depression among elderly in this rural areas is high.[15]

Section II: Study related to effectiveness of Laughter Therapy on Depression.

Heidari M, Borujeni MG, Rezaei P, Abyaneh S, Heidari K. (2020) conducted a study on effect of laughter therapy on depression and quality of life of the elderly living in nursing homes. This is a controlled semi experimental study with Pre test, Post test design.90 eligible ones of the elderly. The study results revealed that both intervention and control groups, respectively, 31.11 % and 68.88% elderly were males and females. The mean scores of depression in the intervention group after laughter therapy (M = 2.57) were lower than those before the intervention (M = 6.87) and the results of independent " t " test showed a statistically significant difference before and after the intervention between two groups (p < 0.001). The mean score of dimensions of quality of life after therapy was higher than that before in the intervention and there was a statistically significant difference in all dimension with paired t test (p<0.001). Study concluded that laughter therapy improve the mental status and quality of life of the elderly.[16]

Siregar R, Gultom R. (2019) conducted a study on effect of laughter therapy on depression level in elderly in a nursing home, north Sumatra, Indonesia. This was a quasi experimental study with Pre test, Post test with control group design.42 participants were selected using a purposive sampling, with 21 participants were randomly assigned in each group. An experimental group received one hour laughter therapy for 3 times a week in 4 weeks and a control group received usual care. Depression was measured using geriatric depression scale 15. The study result revealed that only those who received laughter therapy in the experimental group had a significant effect on depression (p<.050) not for those in the control group (P>.05). It was also a significant difference of mean score of depression of participants between the experimental group and the control group after given intervention (t=-4.146, p <.05), with mean scores of depression of the experimental group and the control group were 6.48 (SD = 1.477) and 8.92 (SD= 1.180). The study results revealed that depression level in participants in the experimental group after receiving laughter therapy was lower than those who did not receive it.[10]

Section III: Study related to effectiveness of laughter therapy on depression among elderly in old age home.

Smitha PM. (2018) conducted a study on effectiveness of laughter therapy on depression among elderly at selected old age homes, Bangalore.60 participants were selected by non probability purposive sampling technique. The data was collected using Beck's depression inventory consisted of 21 questions. The study results revealed that in pre test though the groups showed hardly any variations, in post test the group displayed a reduced level of depression after the therapy. The overall mean Post test level of depression was less than the overall mean Pre test level of depression (15.6< 19.43). The result shows that laughter was effective in reducing depression among elderly. The "t' test value of mean difference between pretest and post test scores was 14.65 which was greater than the table value. It was evident that there was statically significant association between the level of depression with demographic at 0.05 level of significance.[17]

Kumar A, Patra S. (2018) conducted a study on laughter therapy decreases depression among in senior citizens residing in old age homes. Study was Pre test post test experimental design. Yesavage geriatric depression scale with minor modification was administrated to assess the depression. Using systematic randomization method, 30 subjects were selected from the experimental group and 30 from control group. Laughter therapy was administrated to the experimental group for 30 – 45 Minutes daily for 10 consecutive days. Post test was conducted on 15th day of the therapy. The mean pre test depression scores of experimental groups was 16.9 and with a standard deviation of 5.3. While comparing the mean Pre test depression scores of experimental and control group by independent test, the obtained value was 0.63 which is less than table value 1.67, there are no statistic difference between depression scores of experimental and control groups. The mean post test depression score of experimental groups was 1.39 with a standard deviation of 4.4 and that of control group was 17.6 and with a SD 5.3. While comparing the mean post test depression scores of experimental and control groups by independent test the obtained value was 2.95 which is greater than table value 2.66 at P value less than 0.01, rejecting the null hypothesis, so statistically there is significant reduction of post test depression scores of experimental group.[18]

4. Research Methodology

Research Approach
The research approach was evaluative research approach.

Research Design
Quasi experimental research (Pre-test Post-test control design).

Setting
Amar Ghar old age home for Experimental Group and Bhabada Devi Memorial Philanthropic trust 'Seneh' old age home for Control Group, Guwahati.

Population
- **Population** – Elderly with depression.
- **Target population** – Elderly with depression staying in old age home Guwahati.
- **Accessible population** – Elderly present at the time of data collection in old age home, Guwahati.

Sample Size
Sample size consists of 60 elderly people (30 in experimental group and 30 in control group) who have fulfilled the inclusion criteria.

Sampling Technique
Non probability purposive sampling technique was used.

Variables
- **Independent variable:** In this study, independent variable is Laughter therapy.

- **Dependent variable:** In this study dependent variable is level of depression among elderly people.
- **Demographic variables:** Age, Gender, Religion, Education, Previous Employment Status, Source Of Income, Type Of Family, Mode Of Entry In Old Age Home, Duration Of The Stay In Old Age Home, Medical Illness If Present.

Description of the Tool
The tool consist of 2 section

- **Section A: Demographic Performa:** Which consist of 10 items such as – Age, Gender, Religion, Education, Previous employment status, Source of income, Type of family, Mode of entry in old age home, Duration of the stay in old age home, Medical illness if present.
- **Section B: Sheikh MD, Yesavage MD, Javaid I, Jerome A, Geriatric Depression Scale**.

Pilot Study
Pilot study was conducted from 18/01/2021 to 25/01/2021.12 elderly were recruited in the study (6 elderly for control group and 6 for experimental group) in Mother old age home for Experimental group and Manash jyoti Das memorial old age home for Control group.

Data Collection
Duration of main study data collection was from 08/02/2021 to 08/03/2021 in Amar Ghar old age home for Experimental group and Bhabada Devi memorial philanthropic trust 'Seneh' old age home for control group, Guwahati.

5. Analysis and Interpretations

Organization and Presentation of Data
Data analysis according to the objectives of the study under the following section:

- **Section I:** Descriptive analysis of demographic variables among elderly people with depression both experimental and control group.
- **Section II:** Descriptive analysis of Pre test and Post test level of depression among elderly people both experimental and control group.
- **Section III:** Effectiveness of laughter therapy on depression in Experimental group.
- **Section IV:** Compare the level of depression between experimental and control group.
- **Section V:** Inferential analysis to find out the association between Post test level of depression with selected demographic variables in Experimental group.

Section I: Descriptive analysis of demographic variables among elderly people with depression both experimental and control group.

Table 1: Frequency and Percentages distribution of socio demographic variables characteristics in Experimental and Control group among elderly people with depression, n = 60 (30+30)

S. no	Socio Demographic variables	Experimental Group		Control Group	
		f	%	f	%
1	**Age in years**				
	a.60-64 years	7	23.3	11	36.7
	b.65-69 years	15	50	19	63.3
	c.70-74 years	8	26.7	0	0
2	**Gender**				
	a. Male	4	13.3	0	0
	b. Female	26	86.7	30	100
3	**Religion**				
	a. Hindu	27	90	28	93.4
	b. Christian	2	6.7	1	3.3
	c. Muslim	1	3.3	1	3.3
4	**Education**				
	a. No formal education	11	36.7	18	60
	b. Primary education	8	26.7	6	20
	c. Middle education	3	10	4	13.4
	d. Higher secondary	4	13.3	1	3.3
	e. Degree	4	13.3	1	3.3
5	**Previous employment status**				
	a. Unemployed	17	56.7	22	73.4
	b. Daily wage earner	6	20	6	20
	c. Business	1	3.3	0	0
	d. Private job	4	13.3	1	3.3
	e. Govt job	2	6.7	1	3.3
6	**Source of income**				
	a. Pension retirement	2	6.7	0	0
	b. Old age pension	4	13.3	3	10
	c. Depend on old age home	4	13.3	27	90
	d. Savings	8	26.7	0	0
	e. Support From Children	12	40	0	0
7	**Type of family**				
	a. Joint family	11	36.7	14	46.7
	b. Nuclear family	15	50	16	53.3
	c. Extended family	4	13.3	0	0
8	**Mode of entry in old age home**				
	a. Voluntarily	16	53.4	19	63.4
	b. Family members	10	33.3	7	23.3
	c. Others	4	13.3	4	13.3
9	**Duration of stay in old age home**				
	a. Less than 1 year	10	33.3	12	40
	b. 1-2 years	10	33.3	11	36.7
	c. More than 2 years	10	33.4	7	23.3
10	**Medical illness**				
	a. Diabetes	6	20	2	6.7
	b. Hypertension	4	13.3	6	20
	c. Any others	12	40	18	60
	d. No illness	8	26.7	4	13.3

Section II: Descriptive Analysis of Pre test and Post test level of depression among elderly people both Experimental and Control Group.

Table 2: Frequency and Percentage distribution of Pre-test and Post –test level of depression among elderly people in Experimental and Control Group, n=60 (30 + 30)

Level of Depression	Experimental group				Control group			
	Pre-test		Post-test		Pre-test		Post-test	
	f	%	f	%	f	%	f	%
Normal	0	0	5	16.7	0	0	0	0
Mild	5	16.7	16	53.3	5	16.7	4	13.3
Moderate	14	46.6	9	30	13	43.3	16	53.3
Severe	11	36.7	0	0	12	40	10	33.4

Section III: **Effectiveness of laughter therapy on depression in experimental group.**

Table 3: Mean, Standard Deviation (SD), Mean difference, 't' value, Degree of Freedom (df) and 'p' value Pre-test and

Post-test level of depression among elderly people in Experimental Group, n= 30

Experimental Group	Mean	SD	Mean Difference	't' test value	df	'p' value
Pre-Test	10.43	1.755	3.43	21.90	29	0.001**
Post-test	7.0	2.051				

Section IV: Compare the level of depression between Experimental and Control Group.

Table 4: Mean, Standard Deviation (SD), Mean difference, 't' value, Degree of Freedom (df) and 'p' value for Comparison of Post-test level of depression among elderly people between Experimental and Control Group, n=60 (30 +30)

Comparison of Depression	Mean	SD	Mean Difference	t test value	df	p value
Experimental Group	7.0	2.051	3.70	7.011	58	0.001*
Control Group	10.70	2.037				

*p<0.05 level of significance

Section V: Inferential analysis to association between post test level of depression with selected demographic variables with Experimental Group.

Table 5: Association between post test level of depression with selected demographic variables in Experimental Group. n=30

S. No.	Demographic variables	Level of depression			χ^2 value	df	p value
		Normal	Mild	Moderate			
1	**Age in years**						
	a. 60-64	3	2	2	5.58	4	0.233[NS]
	b. 65-69	2	9	4			
	c. 70-74	0	5	3			
2	**Gender**						
	a. Male	1	1	2	1.502	2	0.472[NS]
	b. Female	4	15	7			
3	**Religion**						
	a. Hindu	5	15	7	3.167	4	0.530[NS]
	b. Christian	0	1	1			
	c. Muslim	0	0	1			
4	**Education**						
	a. No formal education	0	6	5	18.69	8	**0.017***
	b. Primary education	0	6	2			
	c. Middle education	0	2	1			
	d. Higher secondary	3	1	0			
	e. Degree	2	1	1			
5	**Previous employment status**						
	a. Unemployed	2	10	5	7.138	8	0.522[NS]
	b. Daily wage earner	1	4	1			
	c. Business	0	0	1			
	d. Private job	2	1	1			
	e. Govt job	0	1	1			
6	**Source of income**						
	a. Pension retirement	0	1	1	5.676	8	0.742[NS]
	b. Old age pension	0	2	2			
	c. Depend on old age home	1	2	1			
	d. Saving	2	5	1			
	e. Support from children	2	6	4			
7	**Type of family**						
	a. Joint family	1	5	5	5.963	4	0.202[NS]
	b. Nuclear family	4	7	4			
	c. Extended family	0	4	0			
8	**Mode of entry in old age home**						
	a. Voluntarily	3	9	4	1.496	4	0.827[NS]
	b. Family members	2	5	3			
	c. Others	0	2	2			
9	**Duration of stay in old age home**						
	a. Less than 1 year	1	4	5	4.767	4	0.312[NS]
	b. 1-2 years	1	6	3			
	c. More than 2 years	3	6	1			
10	**Medical illness**						
	a. Diabetes	1	2	3	1.891	6	0.929[NS]
	b. Hypertension	1	2	1			
	c. Any others	2	7	3			
	d. No illness	1	5	2			

*= Significant at 0.05 level of significance NS= Not significant

6. Results & Discussion

6.1 Discussion as per the objectives of the study

Objectives 1: To assess the level of depression among elderly people.

In the present study results revealed that experimental group pre-test majority 14 (46.6%) of elderly had moderate depression followed by 11 (36.7%) had severe depression and 5 (16.7%) had mild depression where as in post-test majority 16 (53.3%) had mild depression followed by 9 (30%) had moderate depression and 5 (16.7%) reported no depression. In control group pre-test majority of elderly 13 (43.3%) had moderate depression, 12 (40%) had severe depression and 5 (16.7%) had mild depression where as in post-test majority of elderly 16 (53.3%) had moderate depression, 10 (33.4%) had severe depression and 4 (13, 3%) had mild depression.

The finding of the present study is supported by a study conducted by **Raj AJ. (2016)** on to evaluate the effectiveness of laughter therapy on depression among elderly persons staying in selected old age home, at Dindigul, District, Tamilnadu. Study results revealed that pre test none of the elderly person had normal level of depression, 8 (20%) of elderly had mild depression and 32 (80%) of them had severe depression. Whereas in post intervention 10 (25%) of elderly had normal level, 30 (75%) of them mild depression and none of them had severe level of depression.[8]

Objectives 2: To administer and evaluate the effectiveness of laughter therapy on depression in experimental group.

In the present study result revealed that comparison of pre-test and post-test level of depression among elderly people in experimental group. Mean pre-test depression level was 10.43±1.755 and in post-test depression level was 7.0±2.051 with mean difference was 3.43. The comparison was done using paired t test with obtained t value is 21.90 was significant at p<0.01. Result revealed that laughter therapy was effective in reducing the depression of elderly in experimental group.

The finding of the present study is supported by a study conducted by **Kumar A, Patra S. (2018)** on laughter therapy decreases the depression among in Senior citizen residing in old age homes. Pre test post test experimental design and using systematic randomization method, 30 subjects were selected for experimental and 30 for control Group. The study results revealed that the mean post test depression score of experimental groups was 1.39 with a SD 4.4 and that of control group was 17.6 and with a SD 5.3. While comparing the mean post test depression scores of experimental and control groups by independent test the obtained value was 2.95 which is greater than table value 2.66 at P value less than 0.01. so statistically there is significant reduction of post test depression scores of experimental group.[18]

Objectives 3: To compare the level of depression between experimental and control group.

In the present study result revealed that comparison of post-test level of depression among elderly people between experimental and control group. Mean depression level of elderly in experimental group was 7.0 ± 2.051 and in control group was 10.70 ± 2.037 with mean difference was 3.70. Comparison was done using independent t test with obtained t value 7.011 was statistically highly significant at p<0.05. Result showed that laughter therapy was effective in reducing the depression of elderly people.

The finding of the present study is supported by a study conducted by **Sirega R, Gultom R. (2019)** on the effect of laughter therapy on depression level in elderly in a nursing home, north Sumatra, Indonesia. Quasi experimental study among 40 elderly staying in nursing home. The study results revealed that laughter therapy in the experimental group had a significant effect on depression (p< 0.05), not for those in the control group (p>.05). It was also a significant difference of mean score of depression of participants between the experimental group and the control group after given intervention (t=-4.146, p<.05), with mean scores of depression of the experimental group and the control group were 6.48 (SD=1.477) and 8.92 (SD = 1.180), respectively. Study result shows that depression level in participants in the experimental group after receiving laughter therapy was lower than those who did not receive laughter therapy.[10]

Objectives 4: To find out the association between post-test level of depression with selected demographic variables in experimental group.

In the present study result revealed that while determining the association between post test level of depression with selected demographic variables with experimental group result of chi square shows that there is significant association between education ($x^2 = 18.6$, P = 0.017, df = 8) at 0.05 level of significant and there was no significant association between Post test level of depression with socio demographic variable such as Age, Gender, Religion, Previous Employment Status, Source Of Income, Type Of Family, Mode Of Entry In Old Age Home, Duration Of The Stay In Old Age Home, Medical Illness If Present.

The finding of the present study is supported by a study conducted by **Suganthi S. (2012)** on effectiveness of laughter therapy in reduction of depression among senior citizen residing at selected old age home in Virudhunagar, Tamilnadu. Quasi experimental study among 60 elderly staying in old age home. The study results revealed that there was no significant association between post test score of depression in experimental group and their selected demographic variables such as age, gender, religion, education, occupation, marital status, family support, source of income, period of stay and mode of entry in old age home.[19]

7. Nursing Implication

Nursing Education
- Nurse educator can teach laughter therapy as a technique to reduce depression.
- The student nurse is equipped with up to date knowledge about laughter therapy to reduce psychiatric problems.

- Health education programmes can be conducted regarding laughter therapy in hospitals and community settings.
- Make use of available literatures and studies related to non pharmacological measures to reduce depression for student's reference.
- Encourage the students for effective utilization of research based practices

Nursing Administration
- Conduct in-service and continuing programme for effective management of depression through laughter therapy.
- Ensure and conduct workshop, conference, seminars on non pharmacological methods to reduce depression.
- The nurse should prepare case presentation, clinical presentation, nursing rounds, clinical demonstration in the importance of laughter therapy among elderly with depression.

Nursing Practice
- The nursing practice is concentrating on preventive aspects then the curative aspects.
- The nurse should understand the importance of laughter therapy and should know it as a non pharmacological therapy in the field of psychiatric.
- The psychiatric nurse can periodically administer laughter therapy for create awareness in preventing depression on elderly.

Nursing Research
- Nurse researcher should be motivated to conduct more studies on prevention of depression among various age groups.
- Disseminate the findings of the research through conference, seminars and publishing in nursing journals.
- Promote effective utilization of research findings on reduction of elderly depression.

8. Limitations

- The study was limited to 60 samples.
- The study was conducted among the elderly from a selected old age home at Guwahati.
- Period of data collection is limited to 4 weeks.
- Sampling technique was purposive sampling technique.

9. Recommendation

- A similar study can be conducted by increasing the sample size.
- A Study can be conducted in large setting.
- A similar study can be conducted in geriatric outpatient set up.
- A study can be carried out among adults in the hospital settings.
- A study can be conducted by involving students to reduce the level of depression.
- A comparative study between elderly residing in old age home and elderly residing in their home to see the effectiveness of laughter therapy.

- A similar study can be conducted for long duration of intervention.

10. Conclusion

The investigator had conducted the study to assess the effectiveness of laughter therapy on depression among elderly in selected old age home, Guwahati, Assam. The above findings of the study indicated the following:
- Laughter therapy was found to be effective among experimental group as it reduces the level of depression.
- Laughter therapy reduces the depression of elderly in experimental group compared to control group.
- There was a significant association between post test level of depression and educational status and no significant association between post test level of depression with age, gender, religion, previous employment status, source of income, type of family, mode of entry in old age home, duration of stay in old age home, medical illness if present.

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