A study to assess the Effectiveness of laughter therapy on level of depression among elderly in selected old age Home, at Puducherry.

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Abstract: *Aging is a natural aspect of a person's life journey and can be quite endearing in various aspects. It is a biological progression rather than a medical condition. Throughout this process, notable transformations take place within the human body. Many health issues prevalent today stem from depression, particularly chronic depression which can impact individuals in their later years. Pre-experimental research design (one group pre-test and post-test design). Total of 50 elderly were selected by purposive sampling technique. The data was collected by using Geriatric Depression Scale. The study results revealed that pretest and post- test level of depression among the elderly staying at old age home pre-test, 49(98%) had moderate depression and 1(2%) had mild depression and in the post test after the intervention, 44(88%) had mild depression and 6(12%) were normal. The study concluded that the effectiveness of Laughter Therapy on depression among the elderly staying at old age home is more effective.*

Key words: *Elderly, Laughter Therapy, Depression, Puducherry.*

1. INTRODUCTION:

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. [1]

The four areas where the impact is being felt the most are health, economy, social and political, due to an aging population. This increase in the number of elderly persons has put an extra burden on the health care and social care systems in the country. Old age comes with a lot of different health concerns and diseases. The most common mental and neurological disorders in this age group are dementia and depression, which affect approximately 5% and 7% of the world's older population, respectively. [2] Old age is a sensitive period of human life in which the elderly are exposed to potential threats such as the increase in affliction with chronic diseases, loneliness and isolation, and the lack of social support, by which their individual independence is threatened in many cases regarding their physical and mental inabilities. Factors such as disability from illness, loneliness, lack of family support, limited personal autonomy, and financial dependency can contribute to an increase in mental health issues, particularly depression. [3]

Depression in the elderly can be associated with declined functional activity, a higher likelihood of co-morbid conditions like diabetes, hypertension, coronary heart diseases, reduced recovery from comorbid diseases, premature death due to suicide, and other reasons. Improving health of the elderly will make them independent and help them grow older with grace and dignity. [4]

Laughter therapy can generate positive energy, making us more optimistic and healthy. Over the last two decades, in-depth research has been carried out worldwide, proving that laughter has a positive effect on our bodies. Laughter therapy causes the heart rate to be faster, blood pressure increases, and the oxygen level in the blood will increase due to rapid breathing, decreased ACTH secretion, and cortisol levels in the blood. The secretion of the ACTH decrease will stimulate increased serotonin and brain endorphins, leading to a comfortable feeling relaxed and happy.[5]

The effective intervention in reducing depression in elderly is a combination of both biological and psychological interventions. Laughter therapy is one of the interventions, which provides a good massage to all internal organs in reducing stress hormone level, increasing the circulation, and relaxing the muscle. Laughter therapy can make a person calm and comfortable. [6] Around the world, approximately 322 million people get affected with depression with the worldwide prevalence of the range 10–20% depending on cultural situations. A developing country like India comprises of 8.6% of elderly persons (60 years and above) of the total population (India Census 2011), which is proposed to reach 19% by 2050. [7]

Laughter signifies positive things to people; it may add feelings of togetherness, closeness and warmth. Nothing works faster or more dependably to bring our mind and body back into balance than a good laugh. The link between laughter and mental health is that laughter dissolves stressing emotions, helps to reduce depression and increases energy, enabling to stay focused and accomplished more. Research evidences states that laughter therapy is the most effective therapy applicable for all age groups, with which a person deals with oppressive issue. [8]

Health benefits include 50% improvement in immune system, 28% reduction in negative emotions and 18% increase in positive emotions. Hence, there is a need to assess the level of depression among elderly residing at old age home; these instances provoked the investigator to select this study.

2. MATERIALS & METHODS:
Design: Pre-experimental research design (one group pre-test and post-test design) was adapted for the present study.

Sample Size: 50 elderly peoples were selected for the study.

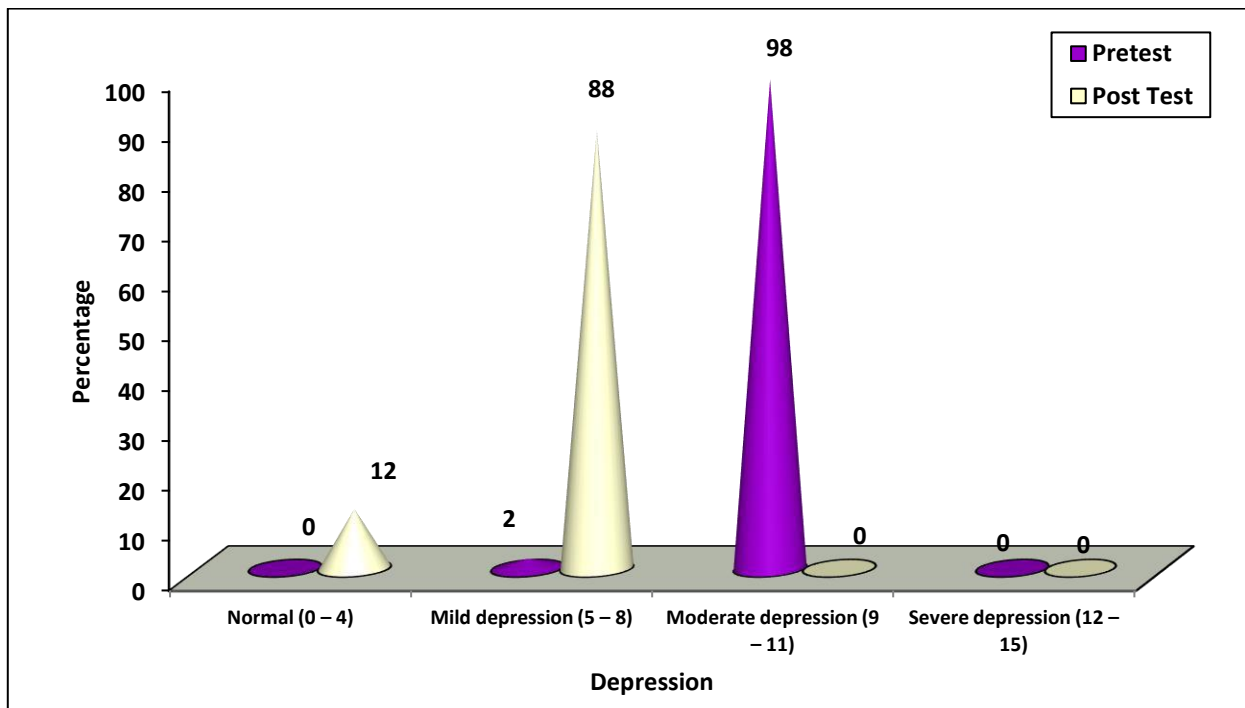**Sampling Technique:** Non Probability Purposive sampling technique was used to select the samples.

Data collection Procedure: Formal permission was obtained from the institutional review committee, institutional ethical committee and also setting permission from the Selected Old Age Home at Puducherry. Using the Purposive sampling techniques, 50 elderly who met the inclusion criteria was selected. The informed consent was obtained from the study participants and the level of depression for elderly was assessed by using the Geriatric Depression Scale. After Administration of laughter therapy on the same day was done and continued for 6 days. After 7 days, post-test was conducted using the same questionnaire to assess the laughter therapy on level of depression among elderly. The data were analyzed based on the objectives of the study using Descriptive statistics as frequency, percentage distribution, mean, and standard deviation. Inferential statistics will be used for comparison for paired t test and Association of level of depression among the elderly staying at old age home with selected demographic variables such as chi square test.

3. RESULTS:
Percentage distribution of demographic variables of elderly, most of the elderly, 38(76%) were aged between 60 – 69 years, 50(100%) were female, 43(86%) were Hindus, 23(46%) had primary education, 41(82%) were widow/widower, 31(62%) were admitted on their own willingness, 20(40%) were staying in old age home for 1 – 3 years, 50(100%) had pension as source of income, spouse not alive and no family support.

Percentage distribution of pretest and post- test level of depression among the elderly staying at old age home pre-test, 49(98%) had moderate depression and 1(2%) had mild depression and in the post test after the intervention, 44(88%) had mild depression and 6(12%) were normal.**(Figure 1)**

Figure 1: Percentage distribution of pre-test and post- test level of depression among the elderly staying at old age home.

The pre-test mean score of depression among the elderly was 10.68±0.65 and post test mean score was 7.08±1.44. The mean difference score was 3.60. The calculated paired 't' test value of t = 16.002 was statistically significant at p<0.001 level. This clearly shows that after the administration of laughter therapy among elderly staying at old age home there was significant reduction in the level of depression among the elderly in the post test. **(Table 1)**

Table 1: Effectiveness of Laughter Therapy on Depression among the elderly staying at old age home.

N = 50

Test	Depression		Mean Difference score	Paired 't' test & p-value
	Mean	**S.D**		
Pre-test	10.68	0.65	**3.60**	**t = 16.002**
Post Test	7.08	1.44		**p=0.0001, S***

***p<0.001, S – Significant.

Association of pre-test level of depression among the elderly staying at old age home with selected demographic variables demographic variable age (χ^2=4.082, p=0.043) had shown statistically significant association with pretest level of depression among the elderly staying in old age home at p<0.05 level and the other demographic variables had not shown statistically significant association with pretest level of depression among the elderly staying in old age home.

4. DISCUSSION:

A Pre-experimental research design (one group pre-test and post-test design) was used to this study. Total of 50 elderly were selected by Non Probability Purposive sampling technique. The first objective was to study was to assess level of depression among the elderly staying at old age home. The result exhibited that, regarding the pre-test, 49(98%) had moderate depression and 1(2%) had mild depression and in the post test after the intervention, 44(88%) had mild depression and 6(12%) were normal. The present study was supported by the previous study of Karishma Das

et al (2022) conducted the A Study to Assess the Effectiveness of Laughter Therapy on Depression among Elderly People in Selected Old Age Home at Guwahati, Assam. The finding of this study revealed that in experimental Group Pretest majority 14 (46.6%) of elderly had moderate depression whereas 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. [9]

The second objective was to evaluate the effectiveness of Laughter Therapy on depression among the elderly staying at old age home. The result depicts that, the pre-test mean score of depression among the elderly was 10.68 ± 0.65 and post test mean score was 7.08 ± 1.44. The mean difference score was 3.60. The calculated paired 't' test value of t = 16.002 was statistically significant at $p<0.001$ level. This clearly shows that after the administration of laughter therapy among elderly staying at old age home there was significant reduction in the level of depression among the elderly in the post test.The present study was supported by the previous study of Mohammed Heidari et al (2020) conducted quasi experimental design about the Effect of Laughter Therapy on Depression of the Elderly Living in Nursing Homes. The results show that the total mean score of QOL dimensions for the intervention group was 47.15 (16.02) before the intervention, which increased to 59.96 (17.58) after the intervention and the paired t-test showed a statistically significant difference (P < 0.001). [10]

5. CONCLUSION:

The study concluded that the most of them are elderly are mild level of depression after intervention. So, the researcher concludes that effectiveness of Laughter Therapy on depression among the elderly staying at old age home is more effective.

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