

A Study To Assess The Effectiveness Of Laughter Therapy On Physical Problems Among Institutionalized Elderly At Ernakulam District In Kerala

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Abstract:

Introduction: The world's population is rapidly aging and developing countries are more involved with such issue. Laughter therapy can improve general health and its subscales. Laughter therapy is a simplest and cost effective method which helps in promotion of health. The present study aimed to evaluate the effect of laughter therapy on Physical Problems among Institutionalized Elderly at Ernakulam District in Kerala.

Methods: A quantitative approach with experimental pre-test, post-test design was used. Fifty samples were collected as per inclusion criteria. Laughter therapy was administered through video CD to perform the steps such as deep breathing, Jerky laugh, relax with closed eyes and clapping hands to the group by the investigator from Monday to Friday in the morning and in the evening for eight weeks.

Results: Post test result indicated that the mean post test scores were significantly reduced than the mean pre- test score ($p < 0.001$). The findings of the present study highlight the fact that the laughter therapy is highly significant to reduce Physical problems among institutionalized elderly.

Conclusion: Study concluded that laughter therapy can improve physical health of elderly.

Keywords: Elderly, Physical problems, Laughter Therapy.

I. INTRODUCTION

For health promotion in older adults, various strategies have been recommended by experts, among which laughter therapy is an important one. Laughter causes synchronized contraction of facial muscles, increases respiratory rate, blood flow and the release of adrenaline in blood and ultimately leads to joy and happiness. It is the cheapest medicine for preventing many diseases and fighting against them. Laughter also decreases the heart beat rate and blood pressure while it increases oxygen intake in tissues by making the individuals take deep breaths. Hence, laughter can benefit both mental and physical health. It is the primary responsibility of the nurse to improve the Physical problems of the institutionalized elderly and minimize disability. So the researcher took up this present

study to assess the effect of Laughter therapy on Physical problems for the institutionalized elderly.

II. METHODS

The study has been approved by the ethical committee of Malankara Orthodox Syrian Christian Medical College Hospital, Kolanchery, Ernakulam, Kerala, India. Permission was obtained from the concerned authorities of selected old age homes. Fifty samples were selected from the old age homes based on the inclusion criteria like elderly Residing in old age homes, In the age group of 60-80 years, Able to verbalize their feelings and follow the commends and instructions, With psychosocial problems, Period of stay less than 5 years. Exclusion criterias were Who is completely

paralyzed, Bed bound for more than 6 months, Having severe psychosocial problems, With visual and auditory impairment, Who are terminally ill. The researcher visited the old age homes and met the care takers and explained about the study and their willingness to participate in the study was sought. Informed consent was obtained from the care takers and samples and confidentiality of the results were assured.

Assessed the demographic characteristics of the institutionalized elderly population like age, gender, educational status, monthly income, marital status, physical health status, duration of stay in old age homes, reason for institutionalization by using 10 structured questions. By using structured questionnaire assessed the physical problems in musculoskeletal, CNS, respiratory, cardiovascular, gastro intestinal system, elimination pattern, integumentary and sleep pattern by using 3 point rating scale, with 42 items.

The elderly in the experimental group participated in a laughter therapy program consisting of forty minutes and two sessions per week for 8 weeks. Weekly follow up was carried out. The program included performing breathing and physical exercises as well as laughter techniques. The questionnaires were completed again by the elderly after the intervention. The data analysis plan included both descriptive and inferential statistics in the form of frequency percentage, mean standard deviation and Paired 't' test.

III. RESULTS

(n=50)

Sl. No.	Demographic Variables	Group C (n = 50)	
		No.	%
1.	Age (in years)		
	a) 60-65	16	32
	b) 66-70	22	44
	c) 71-75	08	16
	d) 76-80	04	08
2.	Gender		
	a) Male	28	56
	b) Female	22	44
3.	Educational Status		
	a) Can read and write	25	50
	b) <7 years of schooling	13	26
	c) 8-10 years of schooling	07	14
	d) 11-12 years of schooling	05	10
4.	Monthly income in rupees		
	a) No income	24	48
	b) Upto Rs. 2000	15	30
	c) Rs. 2001-5000	11	22
5.	Marital Status		
	b) Unmarried	22	44
	c) Widow/Widower	26	52
	d) Divorced	02	04

Table 1: Frequency and Percentage Distribution of Selected Demographic Variables of Institutionalized elderly

With regard to age majority (42%) of the institutionalized elderly persons were between 60 and 70 years. Majority

(56%) of the institutionalized elderly persons were male. Majority (54%) could only read and write. Very few (6 to 14%) had completed 8 to 10 years of schooling in all the four groups. Regarding income 52% of the institutionalized elderly had no income and (26%) had Rs. 2000/- as income in all the four groups. Very few (22%) received Rs. 2001-5000 as monthly income in all the four groups. Regarding marital status, (46%) were unmarried, 50% were widow and widowers and only 4% were divorced.

(n=50)

Sl. No.	Demographic Variables	Group (n = 50)	
		No.	%
1.	Physical Health Status		
	a) History of long term illness		
	a) Present	31	62
	b) Absent	19	38
	b) If present mention the disease		
	- Hypertension	9	18
	- Respiratory Disease	13	26
	- Diabetes Mellitus	6	12
	- Arthritis	3	6
2.	Duration of Stay in Old Age House		
	a) Less than one year	26	52
	b) 1-3 years	23	46
	c) 3-5 years	01	02
3.	Reason for Institutionalization		
	a) Lack of care by family members	36	72
	b) Conflicting relationship with family	14	28

Table 2: Frequency and Percentage Distribution of Selected Demographic Variables of Institutionalized Elderly

Table 2 shows the selected demographic characteristics of the institutionalized elderly persons in old age home.

Regarding physical health status, 62% had complaints of one or the other physical health problem. Majority of institutionalized elderly (52%) were staying for less than a year and 1-3 years in all the four groups. Majority (72%) of them came to old age home due to lack of care by family members. And 28% came to old age home due to conflicting relationship with family. Table - 3

(n = 50)

Physical problems	Maximum Score	Mean
Muskulo skeletal System	06	5.16
Nervous system	06	1.74
Respiratory System	08	4.82
Cadiovascular System	08	4.44
Urinary System	16	11.38
Gastro Intestinal System	26	13.50
Integumentary System	06	3.22
Sleep Pattern System	05	5.78

Table 3: Mean level of Physical Problems during pre test

Table 3 shows the physical problems of the institutionalized elderly persons before interventions.

Muscular system problems had been assessed by three parameters and the average score on musculo skeletal system

problem was found to be 5.18. Central nervous system problems had been assessed by three parameters and the average score on central nervous system problems was found to be 1.74. Respiratory problems had been assessed by four parameters and the score was between zero and eight. 4.84. Cardio vascular problems had been assessed by four parameters the average scores in cardio vascular system problems were, 4.46 .Urinary system problems had been assessed by eight parameters, the average scores on urinary problems were found to be 11.34 .Gastrointestinal problems had been assessed by thirteen parameters, the average scores on gastro intestinal problems were found to be 13.50 .Integumentary problems had been assessed by three parameters, the average scores on integumentary problems were found to be 3.22. Sleep pattern problems had been assessed by four parameters the average scores on sleep problems were found to be, 5.80.

(n = 50)

Physical Problems	Pretest		Posttest		Paired 't' test	Level of Significance
	Mean	Standard Deviation	Mean	Standard Deviation		
Musculo Skeletal System	5.16	0.766	3.48	0.839	14.964	.000
Central Nervous System	1.74	0.664	1.40	1.178	2.037	.000
Respiratory	4.82	0.523	3.22	0.679	13.582	.000
Cardio Vascular System	4.44	1.181	3.38	1.067	7.509	.000
Urinary	11.38	1.276	8.30	0.909	20.808	.000
Gastro Intestinal	13.50	2.628	10.56	0.062	20.827	.000
Integumentary	3.22	1.345	2.24	1.170	10.119	.000
Sleep Problems	5.78	0.507	3.98	0.742	15.759	.000

Table 4: Effectiveness of Laughter therapy on Physical Problems Among Institutionalized Elderly

Table 4 shows the mean levels of physical problems in pre test and post test who received Laughter therapy.

The pre test mean level of muscular skeletal system problems reduced from 5.16 to 3.48 in post test. The mean level of central nervous system problems was found to be 1.74 in pre test and on post test the mean level was 1.40. Pre test mean level of respiratory problems was found to be 4.82 and on post test mean level was 3.22. The pre test mean level of cardio vascular system problems reduced from 4.44 to 3.38 in post test. The pre test mean level of urinary problems reduced from 11.38 to 8.30 in post test. The pre test mean level of gastro intestinal problems reduced from 13.5 to 10.56 in post test. The pre test mean level of integumentary problems reduced from 3.22 to 2.24 in post test. The pre test mean level of sleep problems reduced from 5.78 to 3.98 in post test. Paired 't' test had been applied and the 'P' value inferred that there was a significant change in musculoskeletal, respiratory, cardiovascular, urinary problems, gastrointestinal, integumentary and sleep problems after *Laughter therapy*.

Laughter therapy is effective in reducing the physical problems among the elderly.

IV. DISCUSSION

Researcher examined the effect of a laughter therapy program on the physical health of the Institutionalized elderly. Compared the mean scores of general health subscale before and after the intervention (Table 4). The results showed that the mean score of physical problems significantly decreased in the experimental group after the intervention, indicating the positive effect of intervention on the participants of this group (P=0.001). Findings also demonstrated that physical health had been improved in the experimental group after the laughter therapy intervention and the improvement was statistically significant. Laughter decreases stress hormones and increases the immune cells and antibodies; thus, it can be considered as a factor that improves the physical health.

V. CONCLUSION

We can conclude that laughter therapy can improve general health and its subscales in the elderly people. Therefore, the results obtained from the present study can help authorities and experts in the field of geriatric care management to adopt precise plans and policies to increase general health by making the senior citizens and their families aware about the advantages of laughter therapy and establishing laughter therapy clubs.

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