

Effectiveness of Laughter Therapy on Depression Among Elderly Residing in Selected Old Age Home At Namakkal.

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ABSTRACT

Aging is a natural process that brings about physiological, psychological and cognitive changes. It involves gradual changes in the body, mind, and social life over time. Mental disorders are common among the elderly with serious symptoms of depression and social isolation. The aim of this study is to evaluate the effectiveness of Laughter therapy on depression & to find out the association between post-test level of depression with their selected Demographic variables among the elderly residing in a selected old age home at Namakkal.

A pre experimental one group pre test post test design was adopted for this study. A total of 40 elderly with depression were selected using purposive sampling technique from a selected old-age home, Namakkal & those who fulfilled the inclusion criteria. Depression was assessed using a standardized tool Geriatric Depression Scale (GDS). Laughter Therapy such as Welcome laughter, Milky laughter, Hearty laughter and Lion laughter for 20 minutes twice a day for 5 consecutive days were administered. The data were analyzed using descriptive & inferential statistics. the Mean of the Pre test and Post test was 8.48 and 5.15 respectively and Standard Deviation of the Pre test and Post test was 1.71 and 2.16 respectively. The Mean difference was 3.33. The paired "t" test value was 11.95. At the 0.001 level of significance, the computed value of 11.95 is greater than the tabulated value of 3.55 . This shows that the difference in the score was due to the intervention (Laughter therapy) and also this proves that the laughter therapy was effective in reducing the depression among elderly residing in old age home. The chi-square analysis was used to find the association between the post test level of depression among elderly with their selected demographic variables. It shows that the calculated value is greater than the table value in age, sex, Medical illness, History of taking medications are significantly associated with their selected demographic variables.

INTRODUCTION

Aging is an incurable disease which is considered as normal, inevitable biological phenomenon. Aging take place as account of influence of intrinsic factors and extrinsic factors, but the causes of aging still remain obscure. Many of the changes have to be faced by people as they grow older such as retirement, death of friends and loved ones, increased isolation, or medical problem which can lead to depression. Depression is a common problem in advancing year, which cause enormous human suffering and interferes with normal day-to-day life. Mental disorders in elderly persons vary widely, but a conservatively estimated 25% have significant psychiatric symptoms. In mental disorders, Depression is the major important disorder affecting majority of people. Major depressive disorder is a common disorder, with a lifetime prevalence of about 15%.

In this modern life caring and sharing relationship with elderly people is lacking in the family. The lack of two-way emotional dialogue and relationship leaves them without emotional grounding, often resulting in feelings of isolation and loneliness. In the modern days parents are not cared by the children, instead they are kept in old age homes which makes elderly still depressed and feel lonely. The amount of time spent with elders is not matters; it is the quality of interaction that is important. If there is lack of warmth and friendliness, it leads to anxiety and stress among the elderly. To facilitate better physical and mental

health, emotional bonding is necessary. This provides a sense of emotional security which resists stress and depression – the number one sickness in elderly.

The elderly are prized resources. We need to create a great awareness to safeguard the health and dignity of vulnerable section of society and help them live the rest of their lives with dignity. Elderly are the most rapidly growing segment of population. In India there are about 77 million elderly populations where as in Karnataka out of a population of 5.5 crores, 8 percent are elderly.

Relaxation is essential for healing and repairing the psychological and physiological consequence. Inadequate rest worsens stress, especially through impaired mental functioning. In addition to sleep and rest, people can practice techniques to facilitate physical and mental relaxation. In today's stress full world, we need to laugh much more. The power of laughter is unrealized every time we laugh. Laughter is the over-the –counter medicine available 24hrs a day, to cure a variety of physical emotional ailments. Laughter is the human gift for coping and for survival.

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; laughter generates positive thoughts and reduces the negative strains. Best of all this it's a priceless medicine.

Objectives Of The Study

1. To assess the level of depression among the elderly residing in old age home at Namakkal.
2. To assess the effectiveness of laughter therapy on depression among elderly residing in Old age home at Namakkal.
3. To find out the association between post test level of depression among elderly residing in old age home with their selected socio demographic variables.

Hypothesis

H1: There is a significant difference between the level of depression among the elderly before and after laughter therapy.

H2: There is a significant association between the level of depression among elderly residing in old age home and their selected socio demographic variables.

METHODOLOGY:

A pre experimental one group pre test post test design was adopted for the study. A total of 40 elderly with depression were selected using purposive sampling technique from a selected old age home, Namakkal. Pretest scores were recorded before the intervention, and post-test scores were obtained after the intervention to measure changes in depression.

SOCIO DEMOGRAPHIC VARIABLE		FREQUENCY	PERCENTAGE (%)
AGE	a)60- 70 years	30	75
	b)Above 70 years	10	25
SEX	a) Male	25	62.5
	b) Female	15	37.5
RELIGION	a)Hindu	27	67.5
	b)Christian	7	17.5
	c) Muslim	6	15
	d) Others	0	0
EDUCATION	a)No formal education	0	0
	b) Primary education	9	22.5
	c)Middle education	18	45
	d)High school	8	20
	e) Higher secondary	3	7.5
	f) Degree	2	5
PREVIOUS OCCUPATION	a)Government job	4	10
	b) Private job	8	20
	c)Business	6	15
	d)Coolie	17	42.5
	e) Unemployed	5	12.5

SOURCE OF INCOME	a) Pension after retirement	5	12.5
	b) Old age pension	14	35
	c) Dependent on old age home	15	37.5
	d) Savings	4	10
	e) Support from children	2	5
MARITAL STATUS	a) Single	0	0
	b) Married	34	85
	c) Widow/Widower	6	15
	d) Divorced	0	0
	e) Separated	0	0
NUMBER OF CHILDREN	a) No child	0	0
	b) One child	13	32.5
	c) Two children	22	55
	d) Three & Above	5	12.5
TYPE OF FAMILY	a) Joint family	24	60
	b) Nuclear family	16	40
	c) Extended family	0	0
OCCUPATION OF CHILDREN	a) Working in Abroad	3	7.5
	b) Working in local area	21	52.5
	c) Working in other district	12	30
	d) Working in other state	4	10
MODE OF ENTRY IN OLD AGE HOME	a) Voluntarily	13	32.5
	b) Family members	24	60
	c) Friends	3	7.5
	d) Others	0	0
DURATION OF STAY	a) Less than one year	3	7.5
	b) 1 – 2 years	26	65
	c) More than 2 years	11	27.5
RELATIVES VISIT TO OLD AGE HOME	a) Weekly once	2	5
	b) Monthly once	11	27.5
	c) Three months once	19	47.5
	d) Six months once	8	20
	e) More than six months	0	0
MEDICAL ILLNESS	a) Diabetes	8	20
	b) Hypertension	6	15
	c) Others	0	0
	d) No	26	65
HISTORY OF TAKING MEDICINES	a) Yes	14	35
	b) No	26	65

Table 1 shows that majority of Elderly were 30 (75 %) in the age group of 60-70 years, and 25 (62.5%) were male. The majority of the elderly 26 (65%) were staying in old age home for 1-2 years and most of the 19 (47.5 %) relatives were visiting elderly in old age home for three months once.

Table 2: DISTRIBUTION OF ELDERLY ACCORDING TO THE LEVEL OF DEPRESSION

n=40

LEVEL OF	PRE TEST	POST TEST
OF		

DEPRESSION	PRETEST		POST TEST	
	FREQUENCY	PERCENTAGE(%)	FREQUENCY	PERCENTAGE(%)
Moderate	24	60%	6	15%
Mild	16	40.0%	19	47.5%
No Depression	0	0%	15	37.5%

The above table states that in the pre test majority of the elderly 24[60%] had moderate level of depression, 16[40.0 %] had mild level of depression. In the post test after intervention (Laughter therapy) about 19[47.5%] had mild depression, 15(37.5%) of them had no depression and 6(15%) had moderate depression.

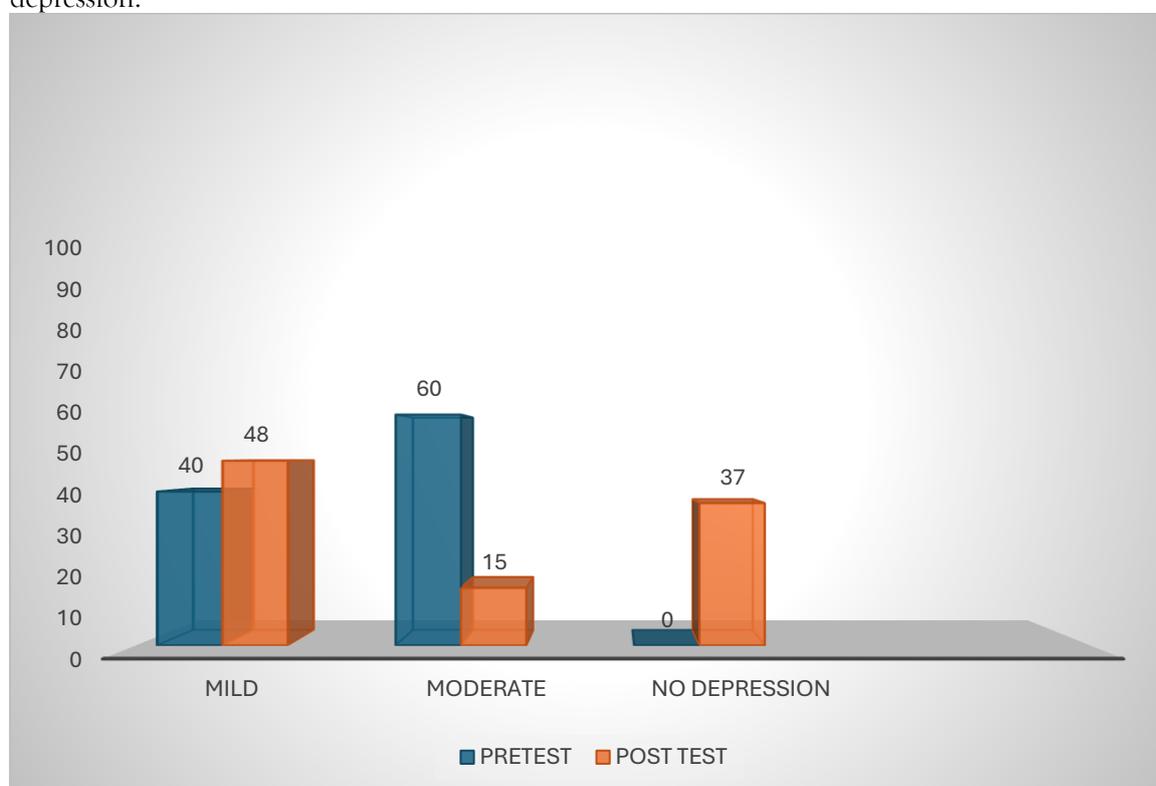


Figure: 1. Bar diagram quotes distribution of subjects according to their level of depression among elderly.

Table 3: EFFECTIVENESS OF LAUGHTER THERAPY ON DEPRESSION AMONG ELDERLY

	Mean	Mean Difference	SD	't' value	'P' Value
Pre Test	8.48	3.33	1.71	11.95 TV= 3.55	< 0.001
Post Test	5.15		2.16		

The table 3 depicts the Mean of the Pre test and Post test was 8.48 and 5.15 respectively and Standard Deviation of the Pre test and Post test was 1.71 and 2.16 respectively. The Mean difference was 3.33. The paired "t" test value was 11.95. This showed that there was a significant difference between the pretest and post test level of depression. Hence it was evidenced that

laughter therapy was more effective in reducing depression among the elderly.

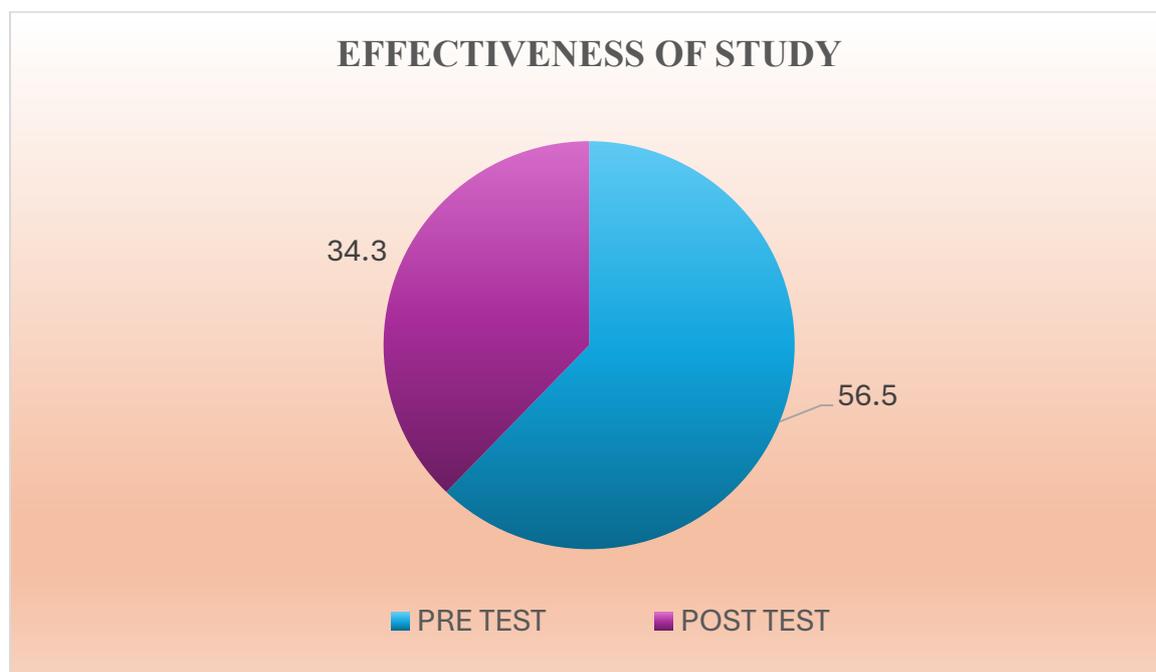


Figure. 2: Pie diagram depicts the Effectiveness of Laughter therapy on depression among elderly.

Table 4: COMPARISON OF MEAN DEPRESSION SCORE

n=40

	No. of spouse	Mean \pm SD	Mean difference	Student's paired t-test
Pre test	40	8.48 \pm 1.71	3.33	$t=11.95$ $P=0.001^{***}$
Post test	40	5.15 \pm 2.16	TV = 3.55	significant

*** Significant at 0.001

The above table 4 depicts the comparison of mean depression score between pretest and post test. The pre test mean depression score was 8.48 with a standard deviation 1.71, whereas post test mean depression score was 5.15 with a standard deviation 2.16. Mean difference is 3.33. The student paired 't' was done to find out the difference between the pre test and post test score, 't' value 11.95 was greater than the table value which was significant at 0.001 level. This shows that the difference in the score was due to the intervention (Laughter therapy) and also this proves that the laughter therapy was effective in reducing the depression among elderly residing in old age home.

COMPARISON OF THE MEAN DEPRESSION SCORE

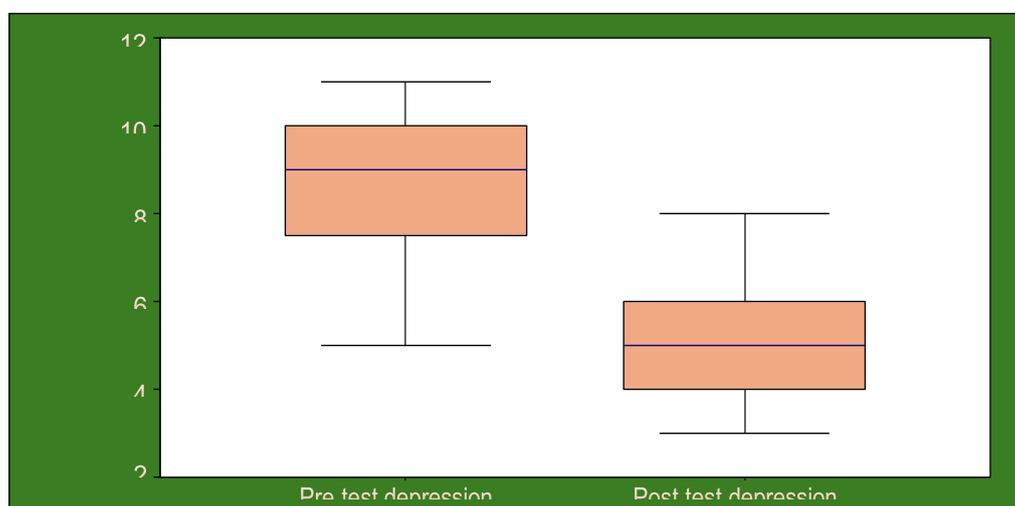


Fig 3 : Box-plot diagram portrays the mean pre test-post test score among elderly.

Table 5: Association between post test level of depression among elderly in the old age home and selected socio demographic variables.

n=40

Demographic variables		Post test level of depression						Total	χ ²
		Normal		Mild		Moderate			
		n	%	n	%	n	%		
Age	a)60 -70 yrs	13	43.3%	11	36.7%	6	20.0%	30	χ ² =6.05 P=0.05*
	b) > 70 yrs	2	20.0%	8	80.0%	0	0.0%	10	
Sex	Male	12	48.0%	12	48.0%	1	4.0%	25	χ ² =7.34 P=0.02*
	Female	3	20.0%	7	46.7%	5	33.3%	15	
Religion	Hindu	9	33.3%	14	51.9%	4	14.8%	27	χ ² =2.83 P=0.56
	Christian	3	42.9%	2	28.6%	2	28.6%	7	
	Muslim	3	50.0%	3	50.0%			6	
Education	Primary education	4	44.4%	3	33.3%	2	22.2%	9	χ ² =5.98 P=0.65
	Middle school	4	22.2%	10	55.6%	4	22.2%	18	
	High school	4	50.0%	4	50.0%			8	
	Higher secondary	2	66.7%	1	33.3%			3	
	Degree	1	50.0%	1	50.0%			2	
Previous Occupation	Govt job	2	50.0%	2	50.0%			4	χ ² =5.23 P=0.73
	Private Job	2	25.0%	6	75.0%			8	
	Business	3	50.0%	2	33.3%	1	16.7%	6	
	Cooly	6	35.3%	7	41.2%	4	23.5%	17	
	Unemployed	2	40.0%	2	40.0%	1	20.0%	5	
Source of income	Pension after retirement	3	60.0%	2	40.0%			5	χ ² =7.78 P=0.45
	Old age pension	7	50.0%	6	42.9%	1	7.1%	14	
	Dependent on old age home	3	20.0%	9	60.0%	3	20.0%	15	
	Savings	1	25.0%	2	50.0%	1	25.0%	4	
	Support from children	1	50.0%			1	50.0%	2	

Demographic variables		Post test level of depression						Total	χ ²
		Normal		Mild		Moderate			
		n	%	n	%	n	%		
Marital status	Married	14	41.2%	15	44.1%	5	14.7%	34	χ ² =1.37 P=0.50
	Widow/Widower	1	16.7%	4	66.7%	1	16.7%	6	

No. of Children	One child Two children Three and above	4 11 11	30.8% 50.0% 19.2%	7 9 3	53.8% 40.9% 60.0%	2 2 2	15.4% 9.1% 40.0%	13 22 5	$\chi^2=6.02$ P=0.19
Type of family	Joint family Nuclear family	9 6	37.5% 37.5%	12 7	50.0% 43.8%	3 3	12.5% 18.8%	24 16	$\chi^2=0.32$ P=0.84
Occupation of children	Working in abroad Working in local area Working in other districts Working in other states	2 8 3 2	66.7% 38.1% 25.0% 50.0%	1 9 7 2	33.3% 42.9% 58.3% 50.0%			3 21 12 4	$\chi^2=3.17$ P=0.78
Mode of entry in old age home	Voluntarily Family members Friends	6 8 1	46.2% 33.3% 33.3%	3 14 2	23.1% 58.3% 66.7%	4 2	30.8% 8.3%	13 24 3	$\chi^2=6.15$ P=0.18
Duration of stay in old age home	Less than 1 year 1-2 years More than 2 years	2 10 3	66.7% 38.5% 27.3%			1 5	33.3% 19.2%	3 26 11	$\chi^2=6.67$ P=0.15
Relatives visit time to old age home	Weekly once Monthly once Three months once Six months once			2 4 7 4	100.0% 36.4% 36.8% 50.0%			2 11 19 8	$\chi^2=5.16$ P=0.52
Medical illness	Diabetes Hypertension No	1 1 13	12.5% 16.7% 50.0%	3 3 13	37.5% 50.0% 50.0%	4 2 0	50.0% 33.3% 0.0%	8 6 26	$\chi^2=15.09$ P=0.01**
History of taking medicine	Yes No	2 13	14.2% 50.0%	6 13	42.9% 50.0%	6 0	42.9% 0.0%	14 26	$\chi^2=14.33$ P=0.01**

*Significant at 0.05% level

Table 5 manifests the association between the post depression score of elderly and their selected socio demographic variables. Chi-square analysis revealed that, there was a significant association between the post depression score such as age, sex, medical illness, history of taking medicines. All other variables were not significantly associated among elderly with their post test score.

RESULTS

The data were analyzed by using descriptive and inferential statistics.. The findings showed a statistically significant improvement in the post-test depression scores compared to the pretest scores ($p < 0.05$). Key improvements were observed in level of depression indicating the positive impact of the laughter therapy intervention and there was a significant association between the post level of depression among elderly with their selected socio-demographic variables (age, sex, Medical illness, History of taking medications).

DISCUSSION

Objective 1:

To assess the level of depression among the elderly residing in old age home at Namakkal.

Geriatric depression scale was used in this study to assess the level of depression among elderly in Sivabakkiyam old age home at Namakkal. In the pretest, majority of elderly 24[60.0%] had moderate level of depression, 16 [40%] had mild level of depression. This study revealed that elderly in the old age home have moderate level of depression.

These findings were supported by Bergkvist k, Wengster Hymn(2006) in a study regarding

prevalence of depression among 80 elderly in old age homes in Mangalore. Majority of the elderly 48(60%) had moderate level of depression, 16(30%) had mild level of depression, 16(30%) had severe level of depression.

Objective 2:

To assess the effectiveness of laughter therapy on depression among elderly residing in Old age home at Namakkal.

In the pretest, majority of elderly 24[60.0%] had moderate level of depression, 16 [40%] had mild level of depression. In the post test 19[47.5%] had mild level of depression, 15(37.5%) of them had no depression and 6(15%) had moderate depression. The mean pre test was 8.48 and mean post test was 5.15 respectively with standard deviation of pre test was 1.71 and post test was 2.16. The mean difference is 3.33. The paired 't' was done to find out the difference between pre test and post test score. The paired 't' test value 11.95 was greater than the table value (3.55) which was significant at 0.001 level. Difference between the pre test and post test was analyzed using proportion with 95% confidence interval and mean difference with 95% confidence interval. The difference shows the effect of laughter therapy on depression among elderly.

This finding was also supported by a study done by Weinberg (2010) among 40 individuals recruited from selected old age home, who had a moderate or severe range of depression. The aim of the study was to assess the effects of laughter therapy on Depression. The individuals were divided into 10 members as 4 groups. For Each group Laughter therapy was given for 15-20 mts for 10 consecutive days. GDC Scale was used. This study shows that there is significant difference between the mean score of pre test and post test (mean of pre test 10 and mean of post test is 7 and $t = 10.71$, $p < 0.05$). The results showed that laughter therapy was effective in decreasing depression among the elderly in old age home.

Hence the stated hypotheses H1 "There is a significant difference in the level of depression among elderly residing in old age home before and after laughter therapy" was accepted.

Objective 3:

3. To find out the association between post test level of depression among elderly residing in old age home with their selected socio demographic variables.

Chi square analysis was calculated to determine the association between the socio demographic variables and the level of depression among the elderly.

Chi-square analysis revealed that there was a significant association between the post depression score and age ($\chi^2 = 6.05$), sex ($\chi^2 = 7.34$), medical illness ($\chi^2 = 15.09$), history of taking medicines ($\chi^2 = 14.33$). All other variables such as religion, education, previous occupation, source of income and marital status, number of children, type of family, occupation of children and mode of entry, duration of stay, relatives visit time to old age home were not significantly associated among elderly with their post test score.

This study finding was consistent with the study findings of Sharma (2013) who did a study on effectiveness of laughter therapy on depression among elderly residing at old age homes of Nagpur. The findings suggested that laughter therapy was effective in reducing depression and the depression scores were associated with age ($\chi^2 = 6.05$) sex ($\chi^2 = 10.34$), education ($\chi^2 = 8.34$), (medical illness ($\chi^2 = 11.34$) history of taking medicines ($\chi^2 = 13.34$).

Hence the stated Hypotheses H2 "There is a significant association between the level of depression among elderly residing in old age home and their selected socio demographic variables." was accepted.

CONCLUSION

The study concludes that laughter therapy was effective in reducing level of depression among the elderly. Incorporating such therapy into the daily routine of elderly care can promote natural physiological process of laughter to release the painful emotion of anger, fear and boredom and

enhance the quality of life. These findings highlight the importance of non-pharmacological interventions in geriatric care, particularly in institutional settings like old age homes. This result revealed that there was a significant relationship between the post test level of cognitive functions among elderly with dementia with their selected socio-demographic variables of in age, sex, Medical illness, History of taking medications. Further research with a larger sample size and long-term follow-up is recommended to validate these results.

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