



## EFFECTIVENESS OF LAUGHTER THERAPY ON BLOOD PRESSURE AMONG PATIENTS WITH HYPERTENSION AT SELECTED HOSPITAL

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### ABSTRACT

The study was conducted in selected community area. Non probability Convenience sampling technique was used with select the samples. The investigator selected 60 geriatric people as per the inclusion and exclusion criteria. The geriatric people were introduced with the whole programme after an introduction and then a written informed consent was obtained from them for willingness to participate in the study. They were assured that their responses and details will be kept confidential and will be used only for the research purpose. Before the tool was administered some informal discussion were made with participants to establish rapport so that they would be relaxed. The total 60 geriatric people were divided into two groups. Each group contained 30 people. Every day the participants were gathered around 10AM in the common place in kurubarapalli community area. The pretest structured questionnaire was administered to them and they were asked to give appropriate answers for all statements to find out the stress level by structured questionnaire scale before laughter therapy. First the investigator demonstrated the laughter therapy steps to first group for 45 to 50 minutes in the morning and evening session per day up to first 2 weeks.

**Key words:** effectiveness, laughter therapy, blood pressure, hypertension

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### INTRODUCTION

Laughter is a natural part of life and is the best medicine. Laughter is a powerful antidote to stress, pain, and conflict. Laughter lightens the burden, inspires hopes, connects someone to others, and keeps the individual, focused, and alert. With so much power to heal and renew, the ability to laugh easily and frequently is a tremendous resource for surmounting problems, enhancing relationships, and supporting both physical and emotional health.

Laughter is defined as a psychological response to either humour or any other stimuli with the following characteristics: Powerful contractions of the diaphragm together with repetitive vocal sounds produced by the action of the resonating chambers of pharynx, mouth and nasal cavities; Typical facial expression (motion of about 50 facial muscles, mainly around the mouth), which may

include the release of tears; Motion of several groups of muscles of the body (more than 300 may be distinct) and A sequence of associated neurophysiological process (cardiovascular and respiratory changes, activation of neuroendocrine and immune circuits)

### OBJECTIVES:

- To identify the effectiveness of laughter therapy on blood pressure among patients with hypertension.
- To associate the demographic, health and clinical variables with the level of blood pressure in the post test among patients with hypertension.

### HYPOTHESES:

H1: There is a significant difference in the systolic and diastolic blood pressure between pre and post test among



patients with hypertension who had been subjected to laughter therapy.

H2: There is a significant association of selected demographic, health and clinical variables with the blood pressure in post test among patients with hypertension.

**Assumptions:**

- Laughter therapy improves the standards of wellbeing among patients with hypertension.
- Maintenance of optimum level of blood pressure reduces complications among patients with hypertension.

**Limitation:**

- the period of 6 weeks.
- patients who were aged between 35- 45 years and diagnosed to have primary hypertension.
- patients who were able to understand Tamil or English.
- patients who visited the Outpatient department at Jeeva Hospital during the period of study.
- sample size of 50

**METHODOLOGY:**

**Research approach:** Quantitative

**Design:** pre experimental one group pre and post-test

**Setting of the study:** Jeeva hospital, Krishnagiri

**Target population:** Patients diagnosed to have hypertension

**Accessible population:** Patients diagnosed to have hypertension and attending OPD at Jeeva hospital, Krishnagiri

**Sampling technique and sample size:** Purposive sampling technique Sample size-50

**INCLUSION CRITERIA:**

**Table 1: Classification of blood pressure**

Classification of Blood pressure	Systolic (mmHg)	Diastolic (mmHg)
Normal	<120	and <80
Pre hypertension	120-139	or 80-89
Stage1 hypertension	140-159	or 90-99
Stage2 hypertension	≥160	or ≥ 100

\*National institute of health, Seventh report of the national committee (2008), American Heart Association (AHA).

- Patients of both male and female diagnosed to have primary hypertension with the blood pressure ranging from 140-180/ 90-110 mm of Hg.
- Patients aged between 35 to 45 years.
- Patients who were able to talk and understand Tamil or English.

**Exclusion Criteria:**

- Patients with mental illness.
- Patients with either visual or hearing impairment.
- Patients with disorientation, unable to follow the instructions.
- Patients diagnosed to have Ischemic heart disease, aneurysm, Cerebrovascular accident and tuberculosis.
- Patients with history of recent pelvic or abdominal surgery, who experience acute orthopaedic distress such as rib or shoulder fracture.
- Patients not willing to participate in the study

**Description of the Tool:**

**Part- I: Demographic Variables**

It included age, sex, marital status, religion, educational status, occupational status and income.

**Part-II: Health Variables**

It encompassed height, body weight, BMI, sleeping pattern, dietary pattern, history of smoking, history of alcoholism and history of chewing tobacco.

**Part- III: Clinical Variables**

It included co-morbidity, time since diagnosis, use of anti-hypertensive medication and duration of treatment.

**PART- IV: Assessment of Blood Pressure**

**1. Blood pressure \_\_\_\_\_ (mm of hg)**

**2. CLASSIFICATION OF BLOOD PRESSURE**

**RESULTS AND DISCUSSION:**

**Table 2: Distribution of demographic variables among study group**

**(n=50)**

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1.	<b>Age</b>		
	35 – 38	16	32
	39 - 42	17	34
	43 - 45	17	34
2.	<b>Gender</b>		
	Male	25	50
	Female	25	50



3.	<b>Marital Status</b>		
	Unmarried	2	4
	Married	35	70
	Widow / widower	8	16
4.	<b>Religion</b>		
	Hindu	39	78
	Muslim	6	12
	Christian	5	10
5.	<b>Educational Status</b>		
	Primary school	14	28
	High school	12	24
	Higher secondary school	10	20
	Graduate	7	14
	Post graduate	5	10
6.	<b>Occupational status</b>		
	Labour	12	24
	Former	17	34
	Government employee	5	10
	Private employee	14	28
	business	2	4
7.	<b>Income per month (Rs)</b>		
	Below 5000	17	34
	5001 - 7500	12	24
	Above 7500	21	42

**Table 3: Distribution of level of blood pressure in pre and post test among study group (n=50)**

S.NO	Level of blood pressure (mm of Hg)	Study Group							
		Pre test				Post test			
		Systolic		diastolic		Systolic		diastolic	
		No	%	No	%	No	%	No	%
1.	Normal	-	-	-	-	-	-	-	-
2.	Pre hypertension	-	-	-	-	45	90	45	90
3.	Stage – I Hypertension	50	100	50	100	5	10	5	10
4.	Stage – II Hypertension	-	-	-	-	-	-	-	-

The above table illustrates that all the 50(100%) study group participants had stage – I systolic and diastolic hypertension in the pre test whereas in post test 45(90%),

had pre hypertension systolic and diastolic only 5(10%) had stage I hypertension systolic and diastolic in the post test.

**Table 4: Comparison of pre and post test level of blood pressure among study group (n=50)**

S.NO	Observation	Study Group		
		Mean	SD	Paired 't' value & P value
1.	Pretest - Systolic (mm of Hg)	144.52	5.37	17.785***
2.	Posttest - Systolic (mm of Hg)	126.80	5.17	P = 0.000 SS
3.	Pretest - diastolic (mm of Hg)	94.52	2.93	17.956***
4.	Posttest – diastolic (mm of Hg)	82.88	3.13	P = 0.000 SS

\*\*\* Significant of  $p < 0.001$

SS – Statistically Significant

The above table discloses that there was a statistically significant difference between pre and post test systolic

and diastolic blood pressure within study group participants at  $p < 0.001$ .



## CONCLUSION:

Laughter therapy is an effective intervention to reduce the blood pressure among patients with hypertension. Since hypertension is a chronic disease, the regular practice of laughter therapy helps the patients with hypertension to sustain the blood pressure within normal limit throughout their survivorship. This will reduce the complications related to hypertension and cost of health care.

## NURSING RESEARCH:

The clinical research finding paves the basement for nursing practice. The innovative nursing strategies have to be devised and subjected to research at different care settings. Since patients with hypertension live longer, many new strategies has to be identified and tested, which will help them to promote their standard of living. The non-pharmacological measures like laughter therapy, yoga, acupressure, meditation, different kinds of exercises can be tested among patients with hypertension according to their ability to practice. This will create the scientific based knowledge for the nursing profession.

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