## ResearchArticle

# A STUDY TO ASSESS THE EFECTIVENESS OF PLANNED DEMONSTRATION PROGRAMME ON LAUGHTER THERAPY AMONG HYPERTENSIVE PATIENTS IN PHC AT KALITHEERTHALKUPPAM, PUDUCHERRY 

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## ARTICLE INFOABSTRACT

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#### Abstract

Hypertension is a chronic medical condition in which the blood pressure in the arteries is elevated. Laughter therapy is the most powerful tool to manage pain the distress, as it has the ability to elevate the mood state and provide a feeling of comfort. The present study was conducted to assess the effectiveness of Planned Demonstration Programme on Laughter Therapy among Hypertensive Patients in PHC at Kalitheerthalkuppam, Puducherry. Quantitative research approach with pre-experimental one group pre-test and post-test design was selected for this study. The study samples comprise of patients diagnosed as hypertensivepatients in PHC. The pre-test was conducted by monitoring blood pressure using sphygmomanometer. After pre-test, Laughter Therapy was administered to the Hypertensive Patients for the duration of 7 days once in a day. After 7 days the post-test was conducted by monitoring blood pressure. Therefore the findings of the study revealed the importance of Laughter Therapy and effective in improving the blood pressure among Hypertension Patients. This study participant gets benefited by participating in this study.


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## INTRODUCTION

Hypertension is an important medical and public health issue. It exists worldwide epidemic rates affecting an estimated 1 billion people. Two third of hypertensive patients do not have their blood pressure controlled. Individuals who remain underdiagnosed and untreated for hypertension present the greatest challenge and opportunity for health care providers.

## NEED FOR STUDY

Hypertension is the leading risk factor for mortality. World Health Organization (WHO) reported showed hypertension prevalence in global level was $26 \%$ in the year 2007 and it will increase by about $29.5 \%$ by the year 2025. The highest prevalence of hypertension was noted in African Americans. On a global level, hypertension is a greater problem with $13.5 \%$ of all deaths attributed to blood pressure related diseases.

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## Objectives

- To assess the level of blood pressure among hypertensive patients.
- To evaluate the effectiveness of laughter therapy among hypertensive patients.
- To associate the pre-test level of blood pressure among hypertensive patients.


## Hypothesis

H1: There will be significant difference between preassessment value and post-assessment value of blood pressure after demonstration of laughter therapy.

H2: There will be significant association between preassessment values with their selected demographic variables.

## ASSUMPTIONS:

It is assumed that,

- Hypertensive patients may have different level of blood pressure according to the severity of condition.

Table1. Distribution of selected demographic variables among hypertensive patients

| Sl. No | Demographicvariables | Frequency | Percentage |
| :---: | :---: | :---: | :---: |
| 1. | AGE |  |  |
|  | -30-40yrs | 4 | 10 |
|  | $\bullet 40-50 \mathrm{yrs}$ | 10 | 25 |
|  | $\bullet 50-60 \mathrm{yrs}$ | 13 | 32.5 |
|  | - Above60yrs | 13 | 32.5 |
| 2. | SEX |  |  |
|  | - Male | 24 | 60 |
|  | -Female | 16 | 40 |
| 3. | EDUCATIONAL QUALIFICATION |  |  |
|  | -High School | 8 | 20 |
|  | $\bullet$ Higher Secondary | 18 | 45 |
|  | - Degree | 6 | 15 |
|  | -Illiterate | 8 | 20 |
| 4. | MARITAL STATUS |  |  |
|  | - Married | 34 | 85 |
|  | -Unmarried | 6 | 15 |
| 5. | DIETARY HISTORY |  |  |
|  | -Vegetarian | 17 | 42.5 |
|  | - Non-Vegetarian | 23 | 57.5 |
| 6. | FAMILY HISTORY OF HYPERTENTION |  |  |
|  | - Yes | 23 | 57.5 |
|  | $\bullet$ - No | 17 | 42.5 |
| 7. | ANY ANTI-HYPERTENSIVE MEDICATION |  |  |
|  | -Yes | 28 | 70 |
|  | - No | 12 | 30 |

Table 2. Comparing the Frequency and percentage wise distribution of pre-assessment value and post assessment value to evaluate the effectiveness of laughter therapy among hypertensive patients.

| S. NO. |  |  |  | LEVEL OFHYPERTENSIVE | PRE-TEST |  | POST-TEST |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | N | $\%$ | N | $\%$ |  |  |  |  |
| 1. | Grade I | 0 | 0 | 22 | $55 \%$ |  |  |  |  |
| 2. | Grade II | 26 | $65 \%$ | 16 | $40 \%$ |  |  |  |  |
| 3. | Grade III | 14 | $35 \%$ | 2 | $5 \%$ |  |  |  |  |

Table 2. Pretest Level of Hypertension


Table 2. Post Test Level of Hypertension


Table 3.Mean and standard deviation of pre and post-assessment value among hypertensive

|  | $\mathrm{N}=30$ |  |  |  |  |  | STANDARD DEVIATION |  | PARED |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
|  | MEAN | TEST |  |  |  |  |  |  |  |
|  | Systolic | Diastolic | Systolic | Diastolic | TEST |  |  |  |  |
|  | 151 | 95 | 9.43 | 6.324 | 8.99 |  |  |  |  |
|  | 135 | 85 | 10.24 | 8.36 |  |  |  |  |  |

*-p $<0.05$, significant and ${ }^{* *}$-p $<0.001$, highly significant

Table 3. Mean and standard deviation of pre assessment value among hypertensive


Table 3. Mean and standard deviation of post-assessment value among hypertensive


Table 4. Association of frequency and percentage distribution of post-test scores regarding hypertensive patients at Kalitheerthalkuppam

| SLNO | DEMOGRAPHIC VARIABLES | GRADE I |  | GRADE II |  | GRADE III |  | CHISQUARE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | N | \% | N | \% | N | \% |  |
| 1. | AGE |  |  |  |  |  |  | $\begin{aligned} & \mathrm{x} 2=10.194 \\ & \mathrm{df}=3 \end{aligned}$ |
|  | $\bullet 30-40 \mathrm{yrs}$ | 3 | 7.5\% | 1 | 2.5\% | 0 | 0\% |  |
|  | $\bullet 40-50 \mathrm{yrs}$ | 3 | 7.5\% | 7 | 17.5\% | 0 | 0\% |  |
|  | -50-60yrs | 4 | 10\% | 9 | 22.5\% | 0 | 0\% |  |
|  | - Above60yrs | 3 | 7.5\% | 7 | 17.5\% | 3 | 7.5\% |  |
| 2. | SEX |  |  |  |  |  |  | $\begin{aligned} & \mathrm{x} 2=2.53 \\ & \mathrm{df}=1 \end{aligned}$ |
|  | - Male | 9 | 22.5\% | 13 | 32.5\% | 2 | 5\% |  |
|  | -Female | 4 | 10\% | 11 | 27.5\% | 1 | 2.5\% |  |
| 3. | RELIGION |  |  |  |  |  |  | $\begin{aligned} & \mathrm{x} 2=3.678 \\ & \mathrm{df}=2 \end{aligned}$ |
|  | - Hindu | 11 | 27.5\% | 15 | 37.5\% | 3 | 7.5\% |  |
|  | -Christian | 2 | 5\% | 7 | 17.5\% | 0 | 0\% |  |
|  | $\bullet$ Muslim | 0 | 0\% | 2 | 5\% | 0 | 0\% |  |
| 4 | EDUCATIONAL QUALIFICATION |  |  |  |  |  |  | $\begin{aligned} & \mathrm{x} 2=11.429 \\ & \mathrm{df}=3 \end{aligned}$ |
|  | $\bullet$ High School | 2 | 5\% | 5 | 12.5\% | 1 | 2.5\% |  |
|  | $\bullet$ Higher Secondary | 8 | 20\% | 10 | 25\% | 1 | 2.5\% |  |
|  | - Degree | 1 | 2.5\% | 4 | 10\% | 1 | 2.5\% |  |
|  | - Illiterate | 2 | 5\% | 5 | 12.5\% | 0 | 0\% |  |
| 5 | Occupation(working pattern) |  |  |  |  |  |  | $\mathrm{x} 2=11.510 \mathrm{df}=2$ |
|  | - Sedentary | 1 | 2.5\% | 4 | 10\% | 2 | 5\% |  |
|  | -Moderate | 4 | 10\% | 15 | 37.5\% | 1 | 2.5\% |  |
|  | -Heavy work | 8 | 20\% | 5 | 12.5\% | 0 | 0\% |  |
| 6. | INCOME |  |  |  |  |  |  | $\begin{aligned} & \mathrm{x} 2=8.416 \\ & \mathrm{df}=3 \end{aligned}$ |
|  | $\bullet<$ Rs. $5000 /-$ | 2 | 5\% | 6 | 15\% | 0 | 0\% |  |
|  | -Rs.5001-10,000/- | 5 | 12.5\% | 8 | 20\% | 1 | 2.5\% |  |
|  | $\bullet$ Rs.10,001-15,000 | 3 | 7.5\% | 5 | 12.5\% | 1 | 2.5\% |  |
|  | $\bullet$ • Rs.15,000/- | 3 | 7.5\% | 5 | 12.5\% | 1 | 2.5\% |  |
| 7. | MARITAL STATUS |  |  |  |  |  |  | $\begin{aligned} & \mathrm{x} 2=0.225 \\ & \mathrm{df}=1 \end{aligned}$ |
|  | -Married | 11 | 27.5\% | 17 | 42.5\% | 2 | 5\% |  |
|  | $\bullet$ Unmarried | 3 | 7.5\% | 6 | 15\% | 1 | 2.5\% |  |
| 8. | DIETARY HISTORY |  |  |  |  |  |  | $\mathrm{x} 2=0.7 \mathrm{df}=1$ |
|  | - Vegetarian | 5 | 12.5\% | 11 | 27.5\% | 1 | 2.5\% |  |
|  | -Non-Vegetarian | 8 | 20\% | 13 | 32.5\% | 2 | 5\% |  |
| 9. | FAMILY HISTORY OF HYPERTENTION |  |  |  |  |  |  | $\mathrm{x} 2=1.013 \mathrm{df}=1$ |
|  | -Yes | 6 | 12.5\% | 15 | 37.5\% | 2 | 5\% |  |
|  | $\bullet$ No | 7 | 17.5\% | 9 | 22.5\% | 1 | 2.5\% |  |
| 10. | ANY ANTI-HYPERTENSIVE MEDICATION |  |  |  |  |  |  | $\mathrm{x} 2=5.867 \mathrm{df}=1$ |
|  | $\bullet$ Yes | 9 | 22.5\% | 18 | 45\% | 1 | 2.5\% |  |
|  | $\bullet$ No | 4 | 10\% | 6 | 15\% | 2 | 5\% |  |

- Hypertensive patients may be unaware of laughter therapy.
- Laughter therapy may be effective in improvement of reducing the level of blood pressure.
- Laughter therapy may be accepted as a mode of intervention for hypertensive patients.
- Hypertensive patients will participate in their daily living activities with their improved blood pressure level.


## RESEARCH METHODOLOGY

Quantitative research approach with pre-experimental one group pre-test and post-test design was selected for this study. The study sample comprise of patients diagnosed as hypertensive patients in PHC. The pre-test was conducted by monitoring blood pressure using sphygmomanometer. After pre-test, Laughter Therapy was administered to the Hypertensive Patients for the duration of 7 days once in a day. After 7 days the post-test was conducted by monitoring blood pressure.

## INCLUSION CRITERIA

- Hypertensive patients at PHC in kalitheerthalkuppam.
- Hypertensive patients above 20 years of age.
- The patients who are having any associated hypertensive conditions.


## EXCLUSION CRITERIA

- Patients who are critically ill.
- Patients who are unconscious.
- Patients who are admitted in hospital.


## DESCRIPTION OF THE TOOL

The tool consists of two parts,
PART-I:Socio-demographic variable
PART-II:Self prepared check list for hypertension assessment by means of sphygmomanometer.

## RESULTS

In pre-assessment, GRADE I(120-140mmhg) have no score, GRADE II ( $140-160 \mathrm{mmhg}$ ) 26 no. of sample are getting $65 \%$, GRADE III ( $>160 \mathrm{mmhg}$ ) 14 no. of sample are getting $35 \%$. It revealed that many of them have increased blood pressure level.In post-assessment value, GRADE I(120-140mmhg) 22 no of sample are getting $55 \%$, GRADEII ( $140-160 \mathrm{mmhg}$ ) 16 no of sample are getting $40 \%$, GRADE III ( $>160$ ) 2 no of sample are getting $5 \%$. This shows the effectiveness of laughter therapy among hypertensive patients. Mean and standard deviation used to evaluate the effectiveness of laughter therapy. In pre-assessment value, the mean value was 151 in systolic, 95 in diastolic with the Standard deviation of 9.43 in systolic and 6.324 in diastolicwhereas in post-assessment the mean value is 135 in systolic, 85 in diastolic with standard deviation of 10.24 in systolic and 8.36 in diastolic.It was statistically found that selected variables such as age, sex, marital status, dietary history, family history of hypertension are significantly associated. The non- significant such as religion, educational qualification, occupation, income any anti-hypertensive medication. This shows that the laughter therapy was very effective in reducing the level of blood pressure.

## Conclusion

Therefore, the findings of the study revealed the importance of Laughter Therapy and effective in improving the blood pressure among hypertension patients. This study participants gets benefited by participating in this study.

## REFERENCES

Carretero, O.A. Oparil, S. 2000. "Essential hypertension. Part I: definition and etiology". Circulation101 (3): 329-35.
Fisher, N.D., Williams, G.H. 2005. Harrison's Principles of Internal Medicine (16th ed.). New York, NY: McGrawHill. pp. 1463-81.
Marshall, I.J. Wolfe, C.D. 2012. "Lay perspectives on hypertension and drug adherence: systematic review of qualitative research". BMJ (Clinical research)345: e3953.


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