

## A study to assess the effectiveness of yoga therapy in reducing of blood pressure among hypertensive clients in selected rural area of Olpad, Surat, Gujarat

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### ABSTRACT

An experimental study was carried out to assess the effectiveness of Yoga Therapy in reducing of blood pressure among hypertensive clients in selected rural area of Olpad, Surat, Gujarat. This study was conducted by Mr. Kadam Chaitanya in partial fulfilment as a requirement from the degree of Bachelor of Science in Nursing in Veer Narmad South Gujarat University, Surat, and Gujarat.

Objectives

- (1) To assess the pre and post-test level of the blood pressure among hypertensive experimental group.
- (2) To find out the effectiveness of yoga on post-test level of blood pressure among hypertensive clients of experimental group.
- (3) To compare the pre and post-test level of blood pressure among hypertensive clients in control group and experimental group.
- (4) To determine association between the pretest blood group pressure level among client with hypertension with their selected demographic variables such as age, gender, occupation, duration of hypertension, family history, food pattern.

**Keywords:** Yoga Therapy; Hypertension; Blood Pressure Reduction; Rural Health; Complementary Medicine; Olpad; Surat; Non-Pharmacological Intervention.

### RESEARCH METHODOLOGY

The research design adopted for this study was quasi experimental design. The sample size was 60 and was drawn through Non randomized control sampling technique[1]. The feasibility of the study and the refinement of the tool were assessed through pilot study. The blood pressure level among Hypertensive clients was assessed by using sphygmomanometer. The data collection for the main study was done from 21/08/2024 to 22/09/2024. Yoga was given for experimental group. Posttest was done after intervention period. The data gathered were analyzed by descriptive & inferential statistics method[2].

### ANALYSIS AND INTERPRETATION

The data were analyzed and interpreted in light of objective and hypothesis. The descriptive and inferential statistics in term of mean standard deviation, and paired 't' test were used for analysis of data[3].

### RESULT

In experimental group the mean score was 3.0 in pretest and 1.70 in post-test. The paired 't' value was 7.28 which is significant at  $p > 0.05$ . It shows that yoga was effective in reducing the blood pressure level among clients with hypertension. In control group the mean score on blood pressure level was 2.96 in pretest and 2.83 in post-test. The paired 't' value was 0.75 which is not significant. The mean score of blood pressure level in experimental group was 1.70 in post-test and 2.83 in control group post-test. The estimated value was 5.16 which is significant at  $p > 0.05$ . It shows that yoga was effective in reducing the blood pressure level among client with hypertension[4]. There is no association between pretest level of blood pressure among the hypertensive clients and their selected demographic variables like occupation, Gender, Duration of illness, family history expect age, Food pattern.

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## INTRODUCTION

Good health is a pre-requisite of human productive and development process. In the past most individuals and societies viewed good health or wellness as the opposite or absence of disease. Health is a multidimensional concept and must be viewed broader perspective[5]. An assessment of the client's state of health is an important aspect of nursing. (Polit. F Denise, 2008). High blood pressure, also called "hypertension," is a serious medical condition[6]. It happens when the force of the blood pumping through your arteries is too strong. When your heart beats, it pushes blood through your arteries to the rest of your body[7]. When the blood pushes harder against the walls of your arteries, your blood pressure goes up. Your blood pressure may be different at different times of the day. It is usually higher when you first wake up, after you exercise, or when you are under stress[8].

Hypertension also known as high blood pressure is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. High blood pressure usually does not cause symptoms. Long term high blood pressure, however, is a major risk factor for coronary artery disease, stroke, heart failure, peripheral vascular disease, vision loss, and chronic kidney disease[9].

High blood pressure is classified as either primary high blood pressure or secondary high blood pressure. About 90–95% of cases are primary, defined as high blood pressure due to nonspecific lifestyle and genetic factors. Lifestyle factors that increase the risk include excess salt, excess body weight, smoking, and alcohol. The remaining 5–10% of cases are categorized as secondary high blood pressure, defined as high blood pressure due to an identifiable cause, such as chronic kidney disease, narrowing of the kidney arteries, an endocrine disorder, or the use of birth control pills[10].

## Objectives

To assess the pre and post-test level of the blood pressure among hypertensive clients in control group and experimental group[11].

To compare the pre and post-test level of blood pressure among hypertensive clients in control group and experimental group.

To find out the effectiveness of yoga on post-test level of blood pressure among hypertensive clients in experimental group[12].

To determine association between the pretest blood pressure level among client with hypertension with their selected demographic variables such as age, gender, educational status, occupation, duration of hypertension, family history, food pattern[13].

## Hypothesis

H1: There will be a significant mean difference in pre and post-test level of blood pressure level among hypertensive client in experimental group

H2: There will be a significant mean difference between the post-test level blood pressure among hypertensive clients in experimental and control group[14].

H3: There will be significant association between pretest control and experimental group level of blood pressure among hypertensive clients with their selected demographic variables

## METHODOLOGY

This deals with the methodology adopted by the investigator to find out the effectiveness of Yoga Therapy among hypertensive Clients in Olpad, Surat, Gujarat[15]. It deals with research approach, research design, the population, sample and sampling technique, development and description of tool, procedure for data collection and plan for data analysis[16].

### Research approach

Quantitative research approach

### Research design

Quasi experimental research design (pre-test post-test)

### Variables

Independent variables

Yoga Therapy

Dependent variables

Level of blood pressure

Demographic variables

Age, gender, educational status, occupation, duration of illness, food pattern, Family history

### Setting of the study

The present study was conducted at 2 Village of Olpad Taluka, Surat, Gujarat. The present study was conducted at:

Olpad Village ta: Olpad, Surat, Gujarat

Talad Village ta: Olpad, Surat, Gujarat

Sample size

The samples consist of 60 Hypertensive Clients.

Sampling technique

Non-Probability (Purposive) sampling Technique

Sample selection criteria

Clients who are willing to participate in the study.

Clients who are diagnosed as hypertension.

Clients who are hypertensive client.

Clients whose Age Group is (36-65).

Clients whose blood pressure level is between 130/90-160/100mmHg.

### Delimitations

Only hypertensive clients aged between 36-65 years.

Talad & Olpad village at Olpad Taluka, Surat, Gujarat.

Major findings of the study

The data were analyzed and interpreted in terms of objectives of the study. Descriptives and inferential statistics were utilized for data analysis of the data the major findings were as follow:

The mean score on blood pressure level in experimental group was 2 in pretest and 1 in post-test. The paired 't' value was 12.04 which is significant at  $p > 0.0001$ . It shows that yoga was effective in reducing the blood pressure level among clients with hypertension[17]. In control group the mean score on blood pressure level was 1.97 in pretest and 1.83 in post-test. The paired 't' value was 2.11 which is significant. There is association between pretest level of blood pressure among the hypertensive clients and their selected demographic variables like occupation, Gender, Duration of illness, family history expect age, Food pattern[18].

The calculated 't' was significantly greater than the tabulated 't' so there was significant, decrease of blood pressure among hypertensive client after providing the Yoga Therapy in experimental group.

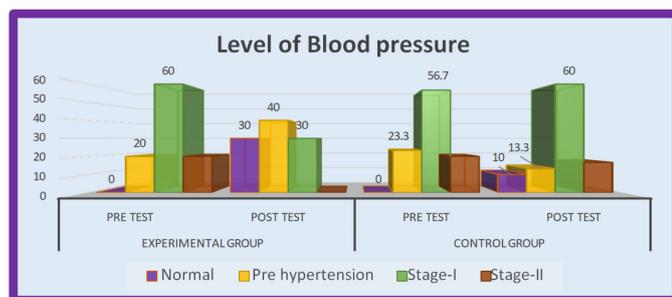


Figure 1: Frequency and percentage wise distribution to assess the effectiveness of yoga therapy in reducing of blood pressure among hypertensive clients in selected rural area of Olpad.

DISCUSSION

It deals with the discussion of the data analyzed based on the objective and hypothesis of the study. The problem stated was an experimental group, a study to evaluate the effectiveness of yoga in reducing the blood pressure level among hypertensive clients in selected village of Olpad taluka. The discussion was based on the objectives of the study[19].

The findings of the study have been discussed with references to the objectives and hypothesis. The pretest score among the hypertensive client in the study was higher than the post test score in the experimental group so the blood pressure level has been improved after giving the yoga therapy to hypertensive client in Olpad ta: Surat, Gujarat[20].

CONCLUSION

In conclusion, this study was undertaken to evaluate the effectiveness of yoga therapy in reducing blood pressure among individuals diagnosed with hypertension in a selected rural area of Olpad, Surat, Gujarat. The findings clearly indicate that yoga therapy had a significant impact on lowering both systolic and

diastolic blood pressure levels in the participants. This supports the growing body of evidence that yoga, as a non-pharmacological intervention, can be an effective complementary approach in the management of hypertension. The results demonstrated noticeable improvement in blood pressure readings after the consistent practice of yoga therapy over the study period. This suggests that incorporating yoga into the daily routine of hypertensive individuals can contribute to better cardiovascular health and overall well-being. Yoga's combined effect of physical postures, breathing exercises, and relaxation techniques appears to help regulate autonomic functions and reduce stress, both of which play crucial roles in blood pressure control. Furthermore, the study emphasizes the importance of community-based interventions in rural areas where access to healthcare may be limited. Yoga therapy can be a cost-effective and easily implementable strategy for managing chronic conditions like hypertension, especially in underserved populations. Overall, the findings strongly support the integration of yoga into primary healthcare services and hypertension management programs. Future research with larger sample sizes and longer follow-up durations is recommended to confirm these results and explore the long-term benefits of yoga therapy in diverse populations[21].

RECOMMENDATIONS

The following studies can be undertaken to strengthen yoga on reducing blood pressure level as a good remedy for hypertensive clients.

A similar study can be conducted with increased in the sample size.

A similar study can be conducted among other hypertensive clients.

A similar study can be conducted in various community settings.

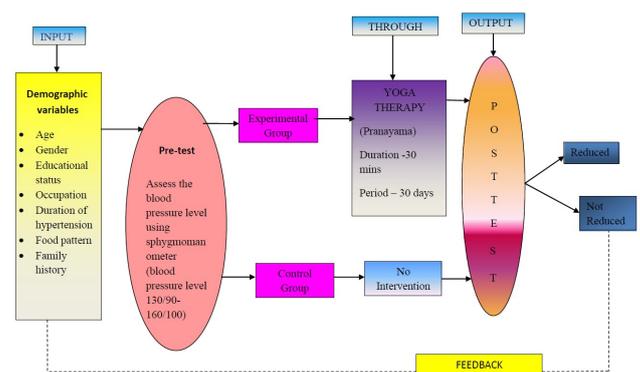


Figure: 2 Modified conceptual frame work based on ludwin bertalanffy (1968) general system theory

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