



# A STUDY TO ASSESS THE LEVEL OF STRESS AMONG HYPERTENSIVE PATIENTS ATTENDING CARDIOLOGY OPD, SVIMS, TIRUPATI.

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## ABSTRACT:

## OBJECTIVES:

- To assess the level of stress in hypertensive patients.
- To find out the association between level of stress among hypertensive patients with selected Socio demographic variables.

## Materials and methods:

**Methodology:** he research approach adopted for this study was **Cross Sectional Descriptive research design**. The study was conducted in Cardiology OPD at SVIMS using structured questionnaire and the sampling technique was **Non Probability Convenience sampling technique**. The tool used in this study consists of two sections : Section - I contains socio demographic variables, Section – II contains modified perceived stress scale (**S.Cohen 1983**).

## Results:

The actual study was done on 355 patients who were falling under inclusion criteria. The collected data was analyzed by using descriptive and inferential statistics. The study findings revealed that 57 (16.1%) patients had low stress, 162 (45.6%) patients had moderate stress, 136 (38.3%) patients had high stress with a mean score  $22.71 \pm 5.93$  respectively.

**Conclusion:**

The findings of association between the level of stress and demographic variables with the age, gender, formal education, occupation, family income, shows highly significant association at  $p < 0.01$  level; place of residence, type of work, shows significant association at  $p < 0.05$  level and the other variables such as marital status, religion, type of family, type of diet do not have significant association.

**KEYWORDS:** Assess, Stress, Hypertension, Patients.

**INTRODUCTION:**

Hypertension, sometimes referred to as high blood pressure, is a chronic illness characterized by a consistently high blood pressure in the arteries. Typically, high blood pressure is asymptomatic. However, a significant risk factor for peripheral arterial disease, dementia, heart failure, atrial fibrillation, stroke, peripheral artery disease, and chronic kidney disease is high blood pressure. Globally, one of the main causes of premature death is hypertension.<sup>1</sup> Stress is characterized as a condition of anxiety or tension in the mind brought on by a challenging circumstance. Stress is a normal human reaction that motivates to deal with obstacles and dangers in our lives.<sup>2</sup>

Stress might temporarily raise your blood pressure. However, there is no proof that stress can lead to a sustained increase in blood pressure.<sup>3</sup> Stress causes the body to release a burst of hormones. The blood arteries narrow and the heart beats more quickly as a result of these hormones. For a while, these behaviours raise blood pressure. There's no evidence that stress on its own results in chronically elevated blood pressure. However, improper stress reactions can also increase blood pressure and the risk of heart attacks and strokes.<sup>4</sup>

**NEED FOR STUDY:**

Stress can induce hypertension by both inducing frequent increases in blood pressure and stimulating the neurological system to generate high levels of vaso constricting hormones.<sup>5</sup> Nearly 50 million persons in America are estimated to have hypertension, which is defined as a systolic blood pressure of more than 139 mm Hg or a diastolic blood pressure of more than 89 mm Hg, according to recent results from the National Health and Nutrition Examination Survey. Ninety-five percent of these patients are classified as "essential" hypertension because the source of the hypertension is not recognized.<sup>6</sup> A cross-sectional study including adult residents of rural Chittoor District was carried out in a community-based manner. A WHO STEPS application was used to collect data from 1,742 study participants who were at least 18 years old. Using the chi-square test, taro yamane test and ANOVA test, the relationship between elevated blood pressure and intragroup and intergroup variables was determined. The prevalence of males was higher than that of females. There is a noteworthy correlation between age, gender, marital status, body mass index, abdominal

obesity, tobacco use, and physical inactivity and hypertension. According to this study, there is a significant prevalence of hypertension and prehypertension in Andhra Pradesh rural areas. <sup>7</sup>

### STATEMENT OF THE STUDY:

**“A STUDY TO ASSESS THE LEVEL OF STRESS AMONG HYPERTENSIVE PATIENTS ATTENDING CARDIOLOGY OPD, SVIMS.”**

### OBJECTIVES OF THE STUDY:

- To assess the level of stress in hypertensive patients .
- To determine the association between level of stress among hypertensive patients with selected socio demographic variables.

### OPERATIONAL DEFINITIONS:

- **Assess:** Assess refers to determining the level of stress among hypertensive patients.
- **Stress:** Stress refers as a state of worry or mental tension that can affect blood pressure , increased heart rate , cardiac output.
- **Hypertension:** High blood pressure, also referred to as hypertension, is when your blood pressure, the force of blood flowing through your blood vessels, is consistently above 140/90 mm of Hg.
- **Patients:** Patients with hypertension attending Cardiology OPD for treatment and follow up.

### ASSUMPTIONS:

- Hypertensive patients may not have stress .

### CONCEPTUAL FRAME WORK :

The conceptual framework for the present study was adopted from General System Theory with input, process, and output as developed by **LUDWIG VON BERTALANFFY (1968)** serves as the theoretical basis for the present study. In general system theory, systems are composed of both structural and functional components. which interacts within boundary that filters the type and rate of exchange with the environment. Living systems is open because of ongoing exchange of matter, energy and information.

The open system describes the following components:

- Input
- Through put
- Out put

## **METHODOLOGY:**

### **RESEARCH APPROACH:**

The study's aims were met through the use of a non-experimental research approach, which is thought to be the most suited in the field of education due to its applicability in real-world scenarios. Its benefits include being feasible, practicable, and relatively generalizable.

### **RESEARCH DESIGN:**

A research design is the overall plan, structure and strategy investigation of answering the questions. It is the blue print that the researcher selects to carry out the study. The research design selected for the present study was Cross Sectional Descriptive Research Design.

### **VARIABLES:**

**Socio demographic variables :** Includes age in years, gender, formal educational qualification, marital status, religion, occupation, family income per month, place of residence ,type of work, type of family, type of diet.

**Research variable:** Level of stress among hypertensive patients attending Cardiology OPD.

### **SAMPLE SETTING**

The study was conducted at Cardiology OPD, SVIMS, Tirupati. The setting was chosen based on of investigation's feasibility in terms of availability of required sample.

**POPULATION:** Patients attending Cardiology OPD, SVIMS, Tirupati.

### **SAMPLE:**

The sample includes patients attending Cardiology OPD and who fall under inclusion criteria.

**SAMPLE SIZE:** Sample size consists of 355 patients

- Sample size calculation was done by using TARO YAMANE Formula(1967).

### **SAMPLING TECHNIQUE:**

Non probability convenience sampling technique was adopted based on the inclusion criteria.

**CRITERIA FOR SAMPLE SELECTION:****Inclusion criteria:**

- Both genders are included.
- Age between 35 - 65 years.
- Diagnosed with hypertension .
- Who are willing to participate in the study and available during the period of data collection.

**Exclusion criteria:**

- With other cardiac problems like inflammatory heart disease , Valvular heart diseases, arrhythmias, heart failure
- With other comorbidities like diabetes mellitus , peripheral vascular disease
- Who are on alternative therapies
- who are not able to read and write.

**3.10. DEVELOPMENT AND DESCRIPTION OF THE TOOL**

The tool was developed with the help of related literatures from text books, journals, websites, discussions and guidance from experts in the field of Nursing and Cardiology department.

**The Tool Consists of two sections:**

**SECTION I :**Socio demogaphic data such as age, gender, formal educational qualification, marital status, Religion, occupation, income, type of residence, type of work, type of family, type of diet.

**SECTION II :** The questionnaire consists of 10 questions which were selected by using modified standardized perceived stress scale ( S.COHEN 1983) to assess the level of stress among hypertensive patients .



**SCORING KEY:**

**SECTION I :** By coding the demographic variables.

**SECTION II :** The pre structured questionnaire consists of 10 questions from modified a perceived stress scale (S.Cohen 1983).

**SCORING INTERPRETATION:**

SCORE	PERCENTAGE	LEVEL OF STRESS
0-15	40-50%	Low stress
16-25	51-75%	Moderate stress
26-40	76-100%	High stress

**RESULTS:** Among 355 patients 23.7 were belongs to age of 35-40 years 14.6 were belongs to age group of 40-55 years 54.1% were belongs to age group of 55-65 years , 45.4% were males, 54.6% were females, 27.6% were illiterates ,43.7% were primary education, 23.9 were secondary education, 4.8% were graduate ,96.1 % were married, and 3.9% were divorced ,80% belongs to Hindu religion, 12.4% were christian,7.6% were muslims, 35.5 % were private employee, 44.8% income were between Rs15,000/- 30,000per month, 37.2 %were living in urban, 47% were doing moderate work, 65.1% were nuclear family, 24.8% were joint family, 10.1% were extended,94% were consuming non vegetarian diet, 5.1% were vegetarian.

The study findings revealed that 57 (16.1%) patients had low stress, 162 (45.6%) patients had moderate stress, 136 (38.3%) patients had high stress with a mean score  $22.71 \pm 5.93$  respectively.

**SECTION :1****DISTRIBUTION OF LEVEL OF STRESS AMONG HYPERTENSIVE PATIENTS ATTENDING  
CARDIOLOGY OPD.****Table-1:** The level of stress was divided into 3 categories

&lt;50% Low stress

51 - 75% Moderate stress

&gt;76 % High stress

N=355

Sl.No	Level of stress	Frequency	Percentage
1	Low Stress	57	16.10
2	Moderate stress	162	45.60
3	High Stress	136	38.30
	Total	355	100.00

**SECTION -II****DISTRIBUTION OF MEAN AND STANDARD DEVIATION OF OF LEVEL OF STRESS AMONG HYPERTENSIVE PATIENTS ATTENDING CARDIOLOGY OPD.****Table-2:****N=355**

<b>STRESS</b>			
<b>SI.No</b>	<b>Level of Stress</b>	<b>Mean</b>	<b>Std. Deviation</b>
1	Low Stress	15.02	0.13
2	Moderate stress	19.83	3.01
3	High Stress	29.38	1.34
	Total	22.71	5.93

Revealed that age,gender,formal education,occupation,family income, shows highly significant association at  $p<0.01$ level; place of residence, type of work, shows significant association at  $p<0.05$  level and the other variables such as marital status, religion,type of family ,type of diet do not have significant association and study reveals that mean and standard deviation the overall mean scores were  $22.71 \pm 5.93$ . Considering to the level of stress, low stress the mean score was  $15.02 \pm 0.13$ , and the moderate stress mean score was  $19.83 \pm 3.01$  and withhigh stress mean score was  $29.38 \pm 1.34$ .

**CONCLUSION:**

The study findings revealed that, a majority of the patients attending OPD's had moderate stress (45.6%), some of the demographic variables were statistically significant and hence it can be concluded that, patients should improve their knowledge regarding stress management. So, informational booklet has been given for improving knowledge and practices.

**IMPLICATIONS:**

The implications drawn for the present study are vital concern to all of patients, including nursing practice, nursing education, nursing administration and nursing research.



**NURSING PRACTICE:**

The present health care delivery system gives emphasis on comprehensive health care, which includes preventive, promotive, curative and rehabilitative care.

- Planned health teaching programme to be scheduled at Cardiology OPD for all patients and their family members on fixed days regarding stress management.
- Hand notes can be given to the patients and family members, in their own language, with an appropriate picture.

**NURSING EDUCATION:**

Nursing students should be encouraged to teach the patients and their family members regarding the importance of the general information, stress management both in hospital and community.

- Conduct in-service education programme for nurses regarding stress management in hypertensive patients.
- Educational programme should emphasize teaching of patients to improve their knowledge and awareness on stress management.

**NURSING ADMINISTRATION:**

The nurse administrator has to conduct workshops on stress management in hypertensive patients.

- Nursing administration should give instructional module to the patients and their caretakers on stress management during their outpatient visit.
- The nurse administrators can take part in developing strategies and health education programs.

**NURSING RESEARCH:**

- Research studies can be conducted on hypertensive patients to identify their knowledge in that aspect.
- Nursing research can be done on management of stress.

**LIMITATIONS:**

- The study is limited to the patients attending Cardiology OPD, SVIMS, Tirupati.

**RECOMMENDATIONS:**

On the basis of findings the following recommendations have been made for further study:

- Similar study can be done among nurses and nursing students.
- A structured teaching programme can be conducted on management of stress among hypertensive patients in different settings and different population.

- A comparative study can be conducted on level of stress among hypertensive patients and patients with other comorbidities.

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