

# Assessment of Level of Depression, Anxiety and Stress among Hypertensive Patients

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## Abstract

Assessment of the level of depression, anxiety and stress among hypertensive patients attending Medicine OPD, in selected Tertiary Care Hospital, Kanchipuram District, Tamil Nadu, India. The objectives were to assess the level of depression, anxiety and stress among hypertension patients and to associate the selected demographic variables with the level of depression, anxiety and stress of hypertension patients. 80 patients were selected using by purposive sampling technique. We have used DASS-21 standardized tool for our research study. The study findings showed that majority of the patients 64(80%) were normal, 13(16%) were mildly depressed and only 3(4%) were moderately depressed, On the aspects of anxiety majority 58(73%) were normal, 13(16%) were having mild anxiety and only 9(11%) were having moderate anxiety and on the level of stress majority 75(94%) were normal and 5(6%) were mildly stressed. Over all mean of level of depression of hypertensive patients were found to be (6.67), for the level of anxiety the mean was found to be (5.7) and (8.9) for the level of stress aspects of the of the hypertensive patients. Standard deviation aspects of the hypertensive patients for the level of depression (3.79), for the level of anxiety (3.08) and for the level of stress were found to be (3.77). There was significant association between the level of depression and type of diet ( $\chi^2 = 22.84$ ) and the level of stress and age ( $\chi^2 = 33.44$ ) of the hypertensive patients. The study concludes that most of the hypertensive patients were normal in the level of depression, anxiety and stress. Nurses when we confront patients with hypertension, if they have symptoms of depression, stress and anxiety, we have to refer them for psychiatric consultation and provide health education on stress management strategies.

**Keywords:** *Depression, Anxiety, Stress and Hypertension patients.*

## Introduction

A global hypertension prevalence of 26% is projected to ascent to 29% by the year 2025. Patients with chronic conditions like hypertension may experience many negative emotions which increase their risk for development of mental health disorders particularly anxiety, stress and depression.<sup>1</sup>

Hypertension or high blood pressure is generally defined as persistent elevation of Blood pressure above 140/90 mm of Hg. It is a major contributor to the mortality and morbidity. Hypertension is the single most important predictor of cardiovascular risk. It is also related to increased severity of the atherosclerosis, stroke, nephropathy, peripheral vascular disease, aortic aneurysms & congestive heart failure. When a Coronary Artery is narrowed or blocked. The area of the heart muscle supplied by that artery becomes ischemic and injured and infarction may result and also can lead failure of the heart.<sup>(2,3)</sup>

Hypertension is the most important risk factor for cardiovascular disease, the consequences of which include death, stroke and myocardial infarction.

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Hypertension is also an important risk factor for chronic kidney disease, left ventricular hypertrophy and congestive heart failure and dementia. Severe and acute elevations in blood pressure may cause encephalopathy, retinopathy, acute decompensate congestive heart failure, aortic dissection and acute kidney injury. Globally, hypertension accounts for 13% of all deaths, 51% of deaths from stroke, 45% of deaths from ischemic heart disease and 4% of disability. So there is need to provide attention on studies on prevention of hypertension<sup>4</sup>.

**Mohammad Shoaib et.al, (2018)** conducted a study to determine the prevalence and factors associated with anxiety and depression among adult hypertensive outpatients in Afghanistan. 234 consecutive hypertensive patients were recruited to complete the Hospital Anxiety and Depression scale (HADS) questionnaire, which has scores for classifying the participants having anxiety and depression symptoms of the total 234 patients. 81(34.6%) were males and 153(65.4%) were females. As there is a relationship between mental and physical health, depression and anxiety are been linked with the development of several chronic diseases. The study conducted that anxiety and depression are highly prevalent among hypertensive patients in an outpatient clinic in Afghanistan. Several studies suggest that individuals experiencing anxiety and depression are at high risk for developing hypertension, as well as being predisposed to stroke and ischemic heart disease.<sup>5</sup>

**Sushil Kumar Sharma and Vineeta Sawhney (2016)** conducted a study to determine the level of Stress, Anxiety and Depression among hypertensive patients attending cardiac OPD in super specialty hospital in Jammu and Kashmir, India. 200 hypertensive patients were selected for this study. Data collection was done using Depression Anxiety Stress Scale – 21. The result shows that it was observed that most (72.5%) of the patients were aware of symptoms and its complications and regarding psychological symptoms mild to severe depressive symptoms was present in 10%, anxiety in 70% and stress in 10% of patients. There is need of psychiatric evaluation and counseling in these patients and support services to be made available to these patients.<sup>6</sup>

## Methodology

**Research Approach:** Quantitative descriptive approach was used for the study. The present study was conducted to assess the level of depression, anxiety and

stress among hypertensive patients attending Medicine OPD, in selected Tertiary Care Hospital, Kanchipuram District, Tamil Nadu.

**Research Design:** Non-experimental descriptive research design was used.

**Research Setting:** The study was conducted at selected tertiary care hospital, Kanchipuram District, Tamil Nadu.

**Population:** The populations of the study to assess the level of depression, anxiety and stress among hypertensive patients attending Medicine OPD, in selected tertiary care Hospital, Kanchipuram District, Tamil Nadu

**Sample Size:** The sample size was 80 hypertensive patients.

**Sampling Technique:** Purposive sampling technique was used for the present study.

### Sampling Criteria:

#### Inclusion Criteria:

- Hypertensive patients who were in the ages above 18 years
- Those who were diagnosed case of hypertension.
- Those who were on anti-hypertensive drugs for a minimum period of 2 months.
- Those who were willing to participate in the study.
- Those who can understand Tamil & English.

#### Exclusion Criteria:

- Patients with pre-hypertension.
- Hypertensive patients who were having known mental illness.

#### Description of the Tool:

It consisted of two sections.

1. Personal Information Sheet of the participant.
2. Depression, Anxiety and Stress Scale (DASS -21)

**Section-A:** It consisted of personal information about the participants which includes age, gender, educational qualification, occupation, monthly income, marital status, types of family, diet, presence of bad habits that affect health and co-morbid condition.

**Section-B:** Depression, Anxiety and Stress Scale (DASS -21) in the form of rating scale was used to assess the level of depression, anxiety and stress of the hypertensive patients. It is a public domain tool.

**Scoring and Interpretation of the Tool:** DASS-21 is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress.. Each of the three DASS-21 scales contains 7 items, divided into subscales.

**S (Stress) Q1, 6, 8, 11, 12, 14, 18**

**A (Anxiety) Q2, 4, 7, 9, 15, 19, 20**

**D (Depression) Q3, 5, 10, 13, 16, 17, 21**

**S score x 2 = Stress**

**A score x 2 = Anxiety**

**D score x 2 = Depression**

The obtained scores were interpreted as follows

Level of Symptoms	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

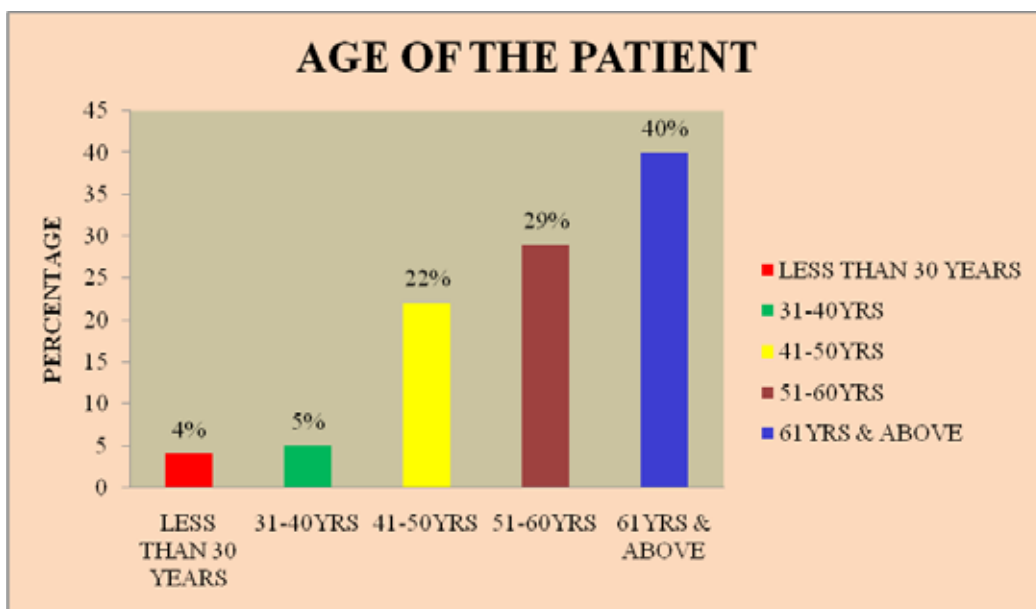
**Method of Data Collection:** The data was collected using Depression, Anxiety and Stress Scale (DASS - 21)

in the form of rating scale was used to assess the level of depression, anxiety and stress of the hypertensive clients. The researcher filled the demographic data sheet and Depression, Anxiety and Stress Scale by conducting interview of the participants. The interview was conducted for 10 minutes in the month of April 2019.

**Statistical Analysis:** The data was analysed using descriptive statistics like frequency distribution, percentage, mean and inferential statistics was used to find out the association between the level of depression, anxiety, stress and selected personal information of the hypertensive patients.

### Results and Discussion

The study reveals that majority of the hypertensive patients were males (55%),majority of the hypertensive patients were in the age group of 61years & above (40%).Majority of the hypertensive patients were completed primary school (50%).Majority of the hypertensive patients are self employed (39%).Majority of the hypertensive were getting monthly income is less than 5000(51%).Majority of the hypertensive patients were married (92%).Majority of the hypertensive patients were belongs to nuclear family (59%). Majority of the hypertensive patients were in the type of mixed diet (85%).Majority of the hypertensive patients were having the habits that affecting health (80%). Majority of the hypertensive patients were having the co-morbid condition (55%).



**Figure 1: Percentage distribution of the patients with hypertension based on their age**

**Table 1: Mean and Standard Deviation of the hypertensive patients in the level of depression, anxiety and stress.**

S.No.	Aspects of Hypertensive Patients	Mean	Standard Deviation
1	DEPRESSION	6.67	3.79
2	ANXIETY	5.7	3.08
3	STRESS	8.9	3.77

The study findings showed that majority of the patients 64(80%) were normal, 13(16%) were mildly depressed and only 3(4%) were moderately depressed, on the aspects of anxiety majority 58(73%) were normal, 13(16%) were having mild anxiety and only 9(11%) were having moderate anxiety and on the level of stress majority 75(94%) were normal and 5(6%) were mildly stressed. There was significant association between level of depression and type of diet ( $\chi^2 = 22.84$ ) and level of stress and age of the patient ( $\chi^2 = 33.44$ ).

It also reveals that there was no significant association between the level of depression and gender ( $\chi^2 = 1.53$ ), age ( $\chi^2 = 12.67$ ), educational qualification ( $\chi^2 = 14.42$ ), occupation ( $\chi^2 = 3.308$ ), monthly income ( $\chi^2 = 2.321$ ), marital status ( $\chi^2 = 2.525$ ), type of family ( $\chi^2 = 1.44$ ), do you have any habits that affect health ( $\chi^2 = 0.386$ ) and presence of any co-morbid condition ( $\chi^2 = 0.61$ ).

The study concluded that most of hypertension patient were normal in the level of depression, anxiety and stress. Nurses who are working in hospital play a vital role in teaching about the symptoms of depression, anxiety, stress and its effects on hypertension. The nurses can give health education related to coping strategies to hypertensive patients to manage stress.

### Conclusion

The study concluded that most of hypertension patient were normal in the level of depression, anxiety and stress. Nurses who are working in hospital play a vital role in teaching about the symptoms of depression, anxiety, stress and its effects on hypertension. The nurses can give health education related to coping strategies to hypertensive patients to manage stress.

**Conflict of Interest:** Nil

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**Ethical Clearance:** Obtained clearance from institutional human ethical committee on 04.02.2019.

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