Original Article

Community and Public Health Nursing
Volume 8 Number 3, September - December 2023
DOI: http://dx.doi.org/10.21088/cphn.2455.8621.8323.2

Descriptive Study to assess the Knowledge Regarding Control of Hypertension among the Patient of Selected Hospital

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How to cite this article:

Shikha Malik, Shivani Chauhan, Smita Prajapati, *et al.*/Descriptive Study to assess the Knowledge Regarding Control of Hypertension among the Patient of Selected Hospital/Community and Public Health Nursing. 2023;8(3):89–93.

Abstract

Hypertension a silent killer as it is symptomless and remains undiagnosed, and not controlled if diagnosed. Hypertension is a major non-communicable disease. Lack of knowledge about hypertension and its control are barriers for effective hypertensive care.

Aims: The study aims to assess the knowledge regarding control of hypertension among the adult hypertensive patient.

Settings and Design: Descriptive study carried out among the patients in CTVS ward, selected hospital.

Methods and Material: Non-probability purposive sampling technique, Participant's selected by inclusion and exclusion criteria, informed consent was taken before administering knowledge questionnaires, data was collected after ethical clearance from the institution.

Statistical Analysis used: Data was analyzed by using descriptive statistics.

Result: Knowledge score of participants: Out of 73 participants, (4.1%) had good knowledge regarding hypertension. Majority of participants (38.36%) know about hypertension and its meaning, (69.86%) normal value of hypertension, (31.51%) frequency of BP measurement in hypertensive patients, (39.73%) position of BP cuff to get most accurate reading. (56.16%) know the correct way of taking drugs, DASH diet (27.4%), (72.6%) have knowledge about sodium restriction. (41.1%) of the participants know about physical activities help to control BP.

Keywords: Knowledge; Hypertension; Control; Non-communicable disease.

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Received on: 25-05-2023 **Accepted on:** 30-06-2023

INTRODUCTION

Hypertension is an important risk factor for cardiovascular disease affecting about 1 billion people worldwide. Elevated BP levels have been shown to risk factor for stroke, congestive heart failure, myocardial infarction, peripheral vascular disease. Majority of hypertension cases are primary when the cause is unknown. Underlying problem such as kidney disease or hormonal disorders that can cause secondary hypertension. It is possible to correct the underlying cause, high blood pressure usually improves and may even return to normal.

Other factors that can contribute to hypertension include: age, diet, excessive alcohol consumption, lack of exercise, obesity, sleep apnea and stress.[1,2]

Background of the Study

WHO (2016) stated that "970 million people worldwide have hypertension. In the developed countries, 330 million people and 640 million in the developing countries have hypertension". Hypertension is rated as one the most important causes of premature death worldwide by WHO.[3] The estimate of hypertension in 2025 will be 1.56 billion adults. Hypertension is responsible for 62% of cardiovascular diseases and 49% of ischemic heart disease affecting 25 to 30% of the urban population and 10 to 12% of the rural population in India with high blood pressure. Currently, 30% are still unaware that they have hypertension and even though 59% are receiving treatment; only 34% have maintained the target blood pressure.[4]

Objectives

1. To assess the knowledge of the patients regarding control of hypertension.
2. To implement health education regarding control of hypertension.

MATERIALS AND METHODS

Research approach: In present study quantitative non experimental approach was used to collect data and to carry out the study.

Research Design: The research design selected for study was descriptive research design.

Setting of the Study: Setting of the study was CTVS ward of Lari, KGMU, Lucknow.

Population: Patients who are admitted in the CTVS department of KGMU.

Sample Size and Sampling Technique

Sample: Selected patient of the CTVS ward who met the inclusion criteria and agreed to participate, were recruited as subject in study.

Sampling Size

Sample size is calculated on the basis of proportion of knowledge on Hypertension control using the formula:

$$n = \frac{z_{\alpha}^2 pq}{L^2}$$

Where p=43.9% the proportion of knowledge on Hypertension control (ref Babu V, *et al*.

q=100 – p,

Type I error α=5%, for the significance level of 95%.

Allowable error L=12% absolute for detecting the results with 80% power of study,

The minimum sample size required comes out to be n=65.

In the present study 80 samples were used, which was calculated on the basis of previous study, out of which 73 participated in the study.

Sampling Technique

In the present study, the sampling was done by using non-probability purposive sampling technique.

Criteria for Sample Selection

Inclusion Criteria:

- Participants who can read, write, communicate and understand Hindi and English.
- Adult patients who was admitted in CTVS ward.
- Patient with the history of hypertension.

Exclusion Criteria:

- Patient who were not willing to participate.
- Staff and other members of CTVS ward.

Variables under the Study

1. Demographic variable (Age, Gender, Marital Status, Religion, Monthly Income, Residence, Type of Family, Employment Status)
2. Knowledge on control of hypertension.

Selection and Development of Tool

The following steps were taken for the development of tool:

- Review of research and non research literature.
- Opinion of experts including guide and co-guides.
- Group discussion from persons of respected

field.

- Peer group discussion

Tools for Data Collection

The present study aimed to assess the knowledge regarding control of hypertension with a view to develop information booklet.

Description of Structured Questionnaire

Assessment of knowledge regarding control of hypertension is divided into two parts:

Part-A: Demographic Tool

It consists of 11 questions.

Part-B: Knowledge questionnaire on Hypertension

The tool consists of 20 questions which is divided into three sections:

Section-1 consists of 5 questions on knowledge of Hypertension and BP monitoring.

Section-2 consists of 10 questions on treatment modalities to control BP.

Section-3 consists of 5 questions on complications.

Content Validity of Tool

To ensure content validity, the tools along with the blue prints, objectives and criteria checklists were given to 5 experts from the field of medical surgical and pediatrics. The experts were requested to give their opinion and verify the item for relevance, accuracy and appropriateness and suggested modifications were done.

Reliability

Reliability coefficient for knowledge test was 0.75 at the acceptable range. The tools were found to be reliable.

Pilot Study

A pilot study was conducted in order to find the feasibility of the study and so plan for the analysis of the data, the pilot study was conducted in the CTVS ward of King George Medical University. The pilot study was carried out from the 24/6/2019 to 30/6/2019. Permission has been obtained from the concerned authority. The study was conducted on patients who fulfilled the inclusion criteria and the feasibility was assessed. The problems faced during the study were regarding the time duration for filling questionnaire, consent for participation in the study and understanding few questions. After doing pilot study the tool was found feasible and reliable for conducting the study.

PROCEDURE FOR DATA COLLECTION

The time period for data collection was before 31st of July 2019. Firstly, the permission was obtained from the Ethical Committee of Institute. Formal permission was taken from the respective HOD of the CTVS department. The data collection was initiated by using purposive sampling technique. Included all the participants meeting the inclusion and exclusion criterion. Purpose and benefits of the study were explained to the participants and informed consent was taken. If any of the participants were not able to understand the questions then it was explained to the participants.

Analysis and Interpretation

For this study, descriptive statistic was used. Data findings were organized and presented under the following sections:

Section 1: Description of demographic profile.

Section 2: Knowledge of participants regarding control of hypertension.

RESULTS

Major Findings of the Study were

Table 1: Distribution of participants as per demographic characteristics

n= 73

Demographic Characteristics	F (Frequency)	% (Percentage)
Age (in years)		
18-30	16	21.90%
31-40	22	30.14%
41-50	16	21.90%
51 and above	19	26.02%
Gender		
Male	50	68.49%
Female	23	31.50%
Transgender	0	0%
Marital Status		
Married	59	80.82%

table cont.....

Unmarried	12	16.43%
Separated	0	0%
Divorced	0	0%
Widowed	2	2.73%
Employment Status		
Employed	27	36.98%
Married	8	10.90%
Homemaker	18	24.60%
Unemployed	15	20.54%
Students	5	6.84%
Religion		
Hindu	61	83.56%
Muslim	12	16.43%
Sikh	0	0%
Christian	0	0%
Others	0	0%
Type of Family		
Nuclear Family	24	32.87%
Joint Family	46	63.01%
Extended Family	3	4.10%
Place of Residence		
Rural	42	57.53%
Urban	24	32.87%
Semi-Urban	7	9.58%
Family monthly Income (In Rupees)		
Less than 15,000	34	46.57%
15,000-30,000	24	32.87%
31,000-45,000	4	5.47%
Above 45,000	11	15.06%

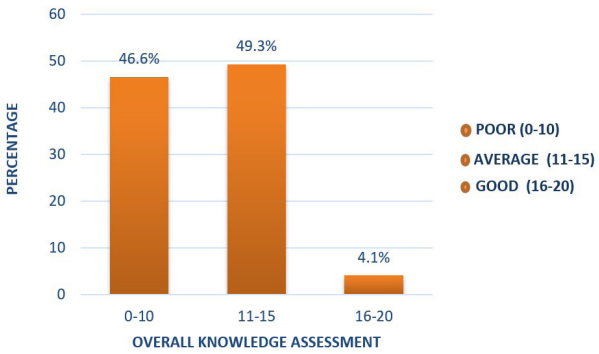

Fig. 1: Showing overall knowledge assessment

Overall knowledge score of participants was:

- Out of 73 participants 46.4% had poor knowledge, 49.3% had average knowledge and 4.1% had good knowledge regarding hypertension.
- Most of participants (38.36%) know about hypertension and its meaning.
- Majority of the participants 69.86% know about normal value of hypertension.
- Most of the participants 31.51% know about the frequency of BP measurement in hypertensive patients and 39.73% know about the position of BP cuff to get most accurate reading.
- Majority of participants 73.08% know what to do if BP increases and 56.16% know the correct way of taking drugs.
- Majority of participants 87.67% know about dietary modification to control BP and 50.68% know about DASH diet.
- Most of the participants 27.4% know about sodium restriction for hypertension and 72.6% know about food items that should be avoided to control salt level.
- Most of the participants 41.1% know about physical activities that help to control BP and 80.82% know the effective way to reduce stress.
- Majority of the participants 30% know the causes related to increase in BP and 34.25% know about major organs affected by high BP or hypertension.

Table 2: Overall Knowledge Assessment

Score	F (Frequency)	% (Percentage)
Poor (Less than 10)	34	46.6
Average (11-15)	36	49.3
Good (16-20)	3	4.1

DISCUSSION

From the above findings it was found that most of participants have average knowledge regarding control of hypertension. These findings were supported with various literature as follows:

In present study most of the participant 69.86% know the normal value of BP and result was similar to study by Bollampally M (2016) carried out to assess knowledge among hypertensive patients in which 43% of population know the normal value of BP.[5]

In present study most of participants, 31.9% know about the regular checkup of BP and result was similar to the study by Rizwana (2011) conducted among adults in which 83.6% of population know about regular checkup for BP.[6]

In the present study most of participants (38.36%)

know about hypertension and its meaning.This findings was seen in consistence with the study findings of EM Osman *et. al.* (2007) About two-thirds of patients showed a high score of knowledge about the aetiology and complications of hypertension.[7]

In the present study Out of 73 participants 46.4% had poor knowledge, 49.3% had average knowledge and 4.1% had good knowledge regarding hypertension. Present study also was supported by study of Young-Shin Lee (2007) Individuals indicated much less awareness about their own BP.[8]

CONCLUSION

The present study showed that majority (49.3%) of participants had average knowledge on the control of hypertension. Healthcare provider needs to deliver appropriate knowledge to patients with hypertension on control measures, lifestyle modification and dietary modification.

ABBREVIATIONS USED

BP	Blood Pressure
CTVS	Cardiothoracic and Vascular Surgery
DALYS	Disability Adjusted Life Years
DASH	Dietary Approach to Stop Hypertension
HTN	Hypertension
SES	Socio-economic Status
WHO	World Health Organisation

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