

**A STUDY TO ASSESS THE KNOWLEDGE ON DASH DIET AMONG PRE  
HYPERTENSIVE PATIENTS IN SELECTED HOSPITAL AT KOLLAM**

**Anziya N.\*, Nishana Noushad, Treessa Mathew, Vishnupriya S. and Ann Benzily**

B. Sc Nursing students, Bishop Benziger College of Nursing Kollam, Kerala, India. Nusing Tutor, Bishop Benziger College of Nursing Kollam, Kerala, India.

**\*Corresponding Author: Anziya N.**

B. Sc Nursing students, Bishop Benziger College of Nursing Kollam, Kerala, India. Nusing Tutor, Bishop Benziger College of Nursing Kollam, Kerala, India.

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**ABSTRACT**

The research project undertook was “A study to assess the knowledge on DASH DIET among prehypertensive patients in selected hospitals at Kollam.” The objectives of the study was to assess the knowledge on DASH diet among prehypertensive patients in selected hospital at Kollam and to find out the association between the pretest knowledge score of selected prehypertensive patients and selected demographic variables such as age, sex, food habits, education, occupation, ill habits, family type . A Quantitative research approach was adopted for this study. This study was conducted among 200 prehypertensive patients in the selected hospitals at Kollam. In order to assess the knowledge of prehypertensive patients regarding DASH diet, the study sample was selected by convenient sampling technique. The tool used for data collection consist of demographic profoma and self-structured questionnaire. Basic introduction of the study was given to the subjects. The analysis of the data was based on the objectives of the study using quantitative and inferential statistics. The findings of the present study revealed that there was significant association between knowledge and demographic variables like sex and education. There is no significant association between age, food habits, occupation, ill habits and family type. Based on the findings the investigator have drawn implication which were of vital concerns in the field of nursing practice, nursing administration, nursing pattern and nursing education for the future development.

**KEYWORDS:** Assess, Knowledge, DASH Diet, Prehypertensive patients.

**INTRODUCTION**

DASH stands for dietary approaches to stop hypertension. The US National Heart Lung and Blood institutes recommends the DASH diet for people with high blood pressure. DASH diet is a flexible and balanced eating plan. The DASH diet encourages the dieter to consume less sodium (salt) and increases his/her intake of magnesium, calcium and potassium in order to help lower blood pressure. DASH diet originated in 1990s. In 1992 National Institute of Health (NIH) started funding several research projects to see if specific dietary interventions were useful in treating hypertension.

The DASH diet includes plenty of fruits, vegetables, low fat dairy products and whole grains as well as legumes, poultry and fish, plus small amounts of red meat, fat and sweets. It is low in saturated fat, total fat and cholesterol. It includes intake of a typical 2000 calorie per day. Based on the evidence of the action of DASH diet in controlling hypertension, a structured teaching plan regarding DASH diet may help the people to improve the knowledge of DASH diet and to practice it to control the hypertension.

In an analysis of worldwide data for the global burden of hypertension , 20.6% of Indian men and 20.9% of Indian women were suffering from hypertension in 2005. The rates for hypertension in percentage are projected to go up to 22.9 and 23.6 for Indian men and women, respectively by 2025. Recent studies from India have shown the prevalence of hypertension to be 25% in urban and 10% in rural people in India. According to the WHO 2008 estimates, the prevalence of raised BP in Indians was 32.5% (33.2% in men and 31.7% in women). However, only about 25.6% of treated patients had their BP under control, in a multicentre study from India on awareness, treatment, and adequacy of control of hypertension.

**STATEMENT OF THE PROBLEM**

A study to assess the knowledge on DASH diet among pre-hypertensive patients in selected hospitals at Kollam.

**OBJECTIVES**

Objectives of the study are  
To assess the knowledge on DASH diet among prehypertensive patients in selected hospitals at Kollam.

To find out the association between the pretest knowledge scores of prehypertensive patients and the selected demographic variables such as age, sex, food habit, education, occupation, ill-habit and family type.

### OPERATIONAL DEFINITION

#### 1) Assess

It refers to the organized systematic and continuous process of collecting knowledge on dash diet.

#### 2) Knowledge

It refers to information possessed by prehypertensive patients on DASH diet and is obtained as a score by using a knowledge questionnaire.

#### 3) DASH diet

DASH is an acronym for Dietary Approaches to Stop Hypertension. It is a dietary program superficially designed to cater to reducing the risk, lowering and managing hypertension. The DASH diet is a flexible and balanced eating plan that helps create a heart-healthy eating style for life. The DASH diet is rich in vegetables, fruits and whole grains. It includes fat-free or low-fat dairy products, fish, poultry, beans and nuts. It limits foods that are high in saturated fat, such as fatty meats and full-fat dairy products. The main aim of the DASH diet is not to lose weight but to reduce blood pressure. However, it can also help those who want to lose weight, lower cholesterol, and manage or prevent diabetes.

#### 4) Pre-hypertension

Prehypertension is defined as a systolic pressure from 120–139 millimeter of mercury (mm Hg) or a diastolic pressure from 80–89 mm Hg.

### HYPOTHESIS

The hypothesis was tested at 0.05 level of significance.

$H_1$  – There will be significant association between pretest knowledge score and demographic variables.

### DELIMITATION

The delimitation of the study were

The age group selected for this study was 20-35 years

Those who have the family history of hypertension

Those who come in outpatient department

Present during the time of data collection

Those who are willing to participate

### RESEARCH APPROACH

In this study, a quantitative research approach was adopted.

### RESEARCH DESIGN

In this descriptive study, the survey research design was used.

### VARIABLES

#### Research variable

In this study research variable was the knowledge on DASH diet among prehypertensive patients in selected hospitals at Kollam.

#### Demographic variables

In this study it refers to variables that influence the knowledge on DASH diet among prehypertensive patients such as age, sex, occupation, family type, ill habit and health condition.

### SETTING OF THE STUDY

The study was conducted in nearby hospitals at Kollam namely,

Bishop Benziger Hospital

Upasana Hospital

Sankars Hospital

### POPULATION

Population for the present study was the patients who were in the age group of 20-35 years in outpatient department in selected hospitals at Kollam.

### SAMPLE

Patients who are in the age group of 20-35 years in outpatient department of selected hospitals at Kollam.

### SAMPLE SIZE

The sample selected for the study was 200 patients in the age group of 20-35 years in outpatient department in selected hospitals at Kollam.

### SAMPLING TECHNIQUE

Samples were selected by convenience sampling.

### RESULT AND DISCUSSION

#### Scoring Procedure

The score were interpreted as:

KNOWLEDGE	SCORE
POOR	1-10
MODERATE	11-15
GOOD	16-20

#### Description of demographic data

- Regarding age, it was found that 41% were in the age group of 20-25 years of age, 31.5% were in the age group of 26-30 years, 27.5% were in the age group of 30-35 years.
- Regarding sex, it was found that 42% were males and 58% were females.
- Regarding food habit, it was found that 20.5% were vegetarians and 79.5% were non-vegetarian.
- Regarding education, it was found that 4% had primary education, 31.5% had higher secondary education, 60% had degree or diploma and 4.5% were post graduates.
- Regarding occupation, it was found that 8.5% were government employees, 34.5% were self employed,

- 37% were unemployed and 20% belonged to other categories.
- Regarding ill habits, it was found that 15.5% are alcoholic, 9% are smokers, 3% use tobacco, 4% use other substances and 68.5% have no ill habits.
  - Regarding family type, it was found that 78.5% were from nuclear family, 18.5% were from joint family, 1.5% were from conjoint family and 1.5% were from other categories.

**Table 1: Frequency and percentage distribution of pretest score on knowledge regarding DASH Diet.**  
N=200

Score	Score range	Frequency	Percentage
1-10	Poor knowledge	91	45.5
11-15	Moderate knowledge	84	42
16-20	Good knowledge	25	12.5

The data presented in table 1 shows that 45.5% had Poor knowledge 42% had moderate knowledge and 12.5% had good knowledge.

**Table 2: Association between knowledge and selected demographic variables.**

Sl No	Variables	Knowledge			Df	Chi square value	Table Value	Level of significance
		Good	Average	Poor				
1.	<b>Age</b>							
	20-25	10	33	39	4	2.769	9.488	NS
	26-30	7	23	33				
	31-35	8	27	20				
2.	<b>Gender</b>							
	Male	6	33	45	2	6.283	5.991	S
	Female	18	51	47				
3.	<b>Food habit</b>							
	Vegetarian	9	14	18	2	4.303	5.991	NS
	Non-vegetarian	16	67	76				
4.	<b>Education</b>							
	Primary	0	5	3	6	17.535	12.592	S
	Higher Secondary	2	20	41				
	Degree/ Diploma	21	54	45				
	Post graduate	2	4	3				
5.	<b>Occupation</b>							
	Government	4	9	4	6	11.535	12.592	NS
	Self employee	6	22	41				
	Unemployed	8	36	30				
	Others	7	16	17				
6.	<b>Ill habits</b>							
	Alcohol	3	10	18	8	4.682	15.507	NS
	Smoking	2	9	7				
	Tobacco	0	2	4				
	Others	0	4	4				
	No ill-habits	20	58	59				
7.	<b>Family type</b>							
	Nuclear family	18	65	74	6	2.219	12.592	NS
	Joint family	5	16	16				
	Conjoint family	0	1	2				
	Others	1	1	1				

0.05- Level of significance

NS –non significant

S\*-Significant

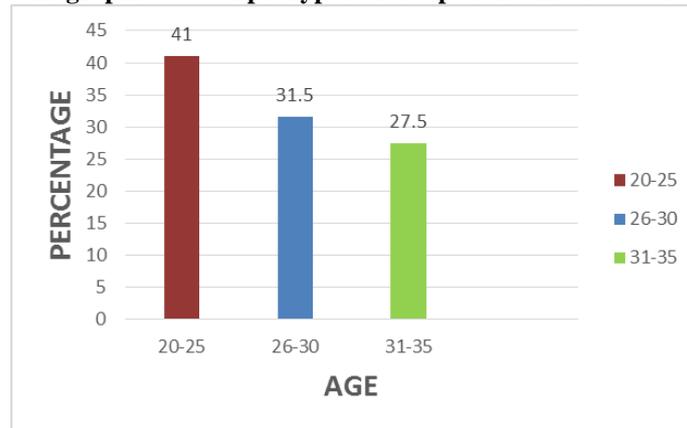
The association was computed by using chi square test. It was inferred that the present study showed significant association between knowledge and demographic

variables like sex and education and no significant association between knowledge and demographic variables like age, food habit, occupation, ill habit,

family type at 0.05 level of significance (calculated value is greater than tabulated value at 0.05 level of significance). Hence hypothesis H1 which states that

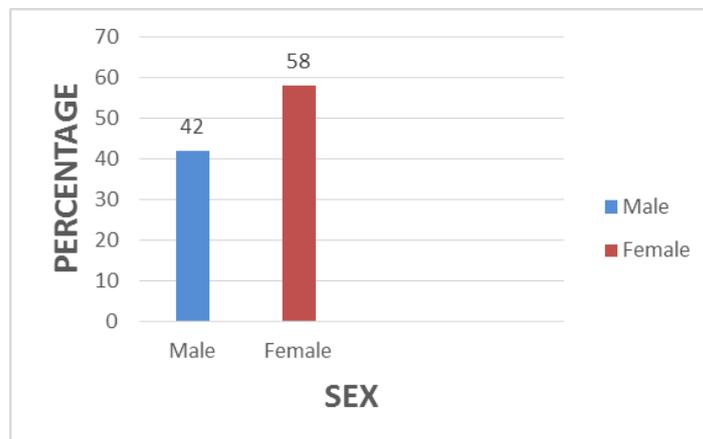
there will be significant association between pretest knowledge score and demographic variables is partially accepted.

### Section 1: Description of Demographic data of prehypertensive patients in selected hospitals Kollam



**Figure 1: Bar diagram showing percentage distribution of prehypertensive patients according to their age.**

The data presented in figure 1 shows that 41% were in the age group of 20-25 years of age, 31.5% were in the age group of 26-30 years, 27.5% were in the age group of 31-35 years.



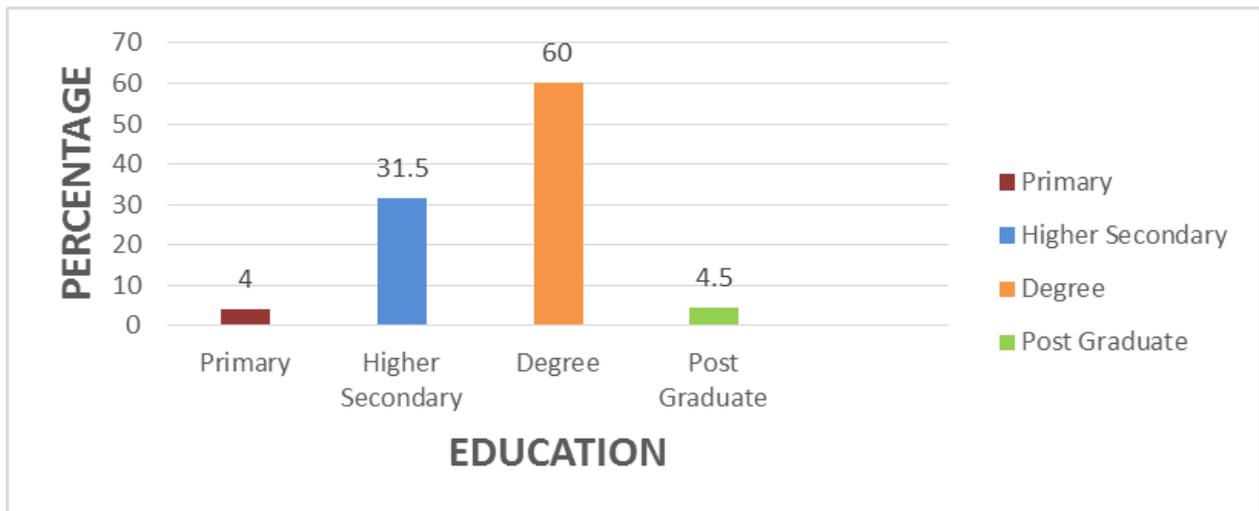
**Figure 2: Bar diagram showing percentage distribution of prehypertensive patients according to their sex.**

The data presented in figure 2 shows that 42% were males and 58% were females



**Figure 3: Bar diagram showing percentage distribution of prehypertensive patients according to their food habit.**

The data presented in figure 3 shows that 20.5% were vegetarians and 79.5% were non-vegetarians.



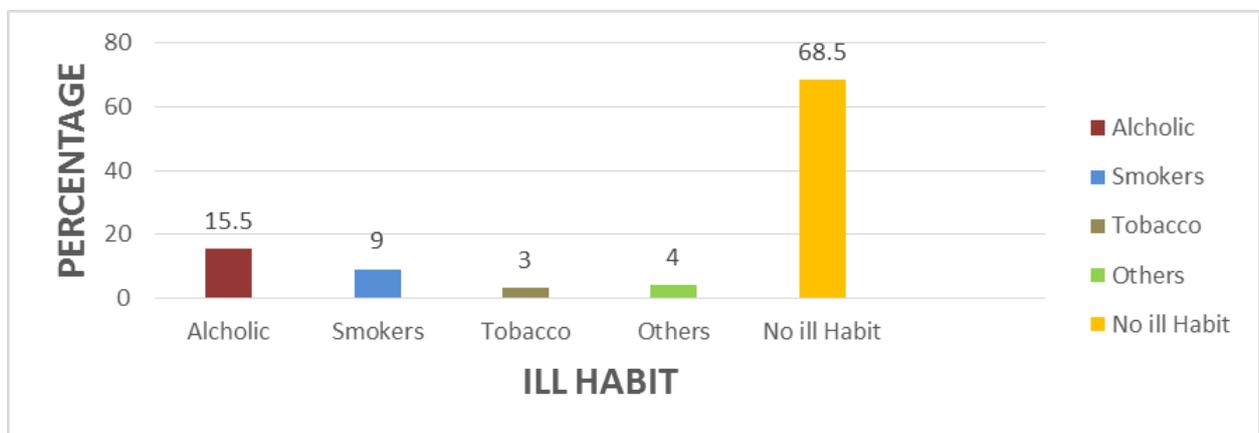
**Figure 4: Bar diagram showing percentage distribution of prehypertensive patients according to their education.**

The data presented in figure 4 shows that 4% had primary education, 31.5% had higher secondary education, 60% had degree or diploma and 4.5% were post graduates.



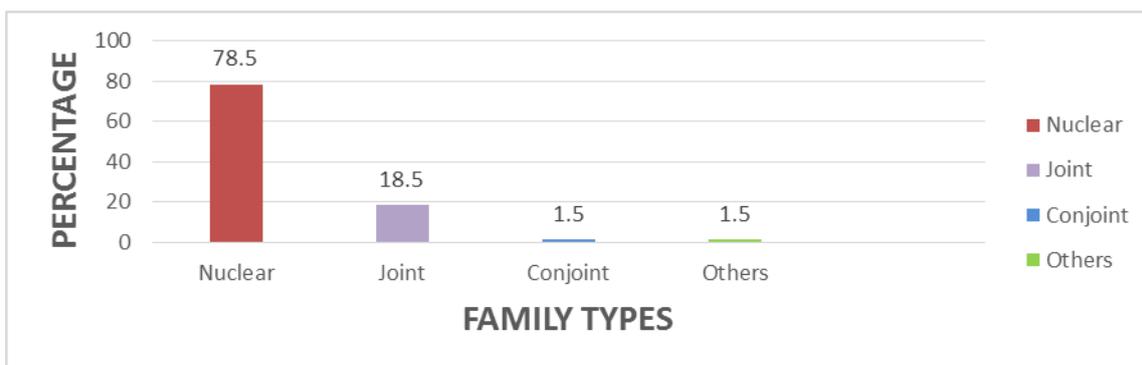
**Figure 5: Bar diagram showing percentage distribution of prehypertensive patients according to their occupation.**

The data presented in figure 5 shows that 8.5% were government employees, 34.5% were self-employed, 37% were unemployed and 20% belonged to other categories.



**Figure 6: Bar diagram showing percentage distribution of prehypertensive patients according to their ill habit.**

The data presented in figure 6 shows that 15.5% are alcoholic, 9% are smokers, 3% use tobacco, 4% use other substances and 68.5% have no ill habits.



**Figure 7:** Bar diagram showing percentage distribution of prehypertensive patients according to their type of family.

The data presented in figure 7 shows that 78.5% were from nuclear family, 18.5% were from joint family, 1.5% were from conjoint family and 1.5% were from other categories.

## DISCUSSION

The study was intended to assess the knowledge on DASH diet among prehypertensive patient in selected hospital at Kollam. In order to achieve the objectives of the study, a non experimental descriptive research design was adopted. The subjects were selected by convenient sampling. The sample consisted of 200 prehypertensive peoples of selected hospitals at Kollam. The finding of the study have been discussed in relation to the objectives and other similar studies.

### Objectives of the study are

To assess the knowledge on DASH diet among prehypertensive patients in selected hospitals at Kollam.

To find out the association between the pretest knowledge scores of prehypertensive patients and the selected demographic variables such as age, sex, food habit, education, occupation, ill-habit and family type.

### Discussion of findings with other studies based on objectives

#### ◆ Assess the knowledge on DASH diet among prehypertensive patients in selected hospitals at Kollam.

The present study shows that out of 200 sample, that 45.5% patients had poor knowledge, 42% patients had moderate knowledge and 12.5% patients had good knowledge regarding DASH diet.

The above findings are supported by a study to assess the effectiveness of STP on knowledge regarding DASH diet in controlling blood pressure among hypertensive patients in Unicare hospital at Rajkot. Purposive sampling technique was adopted to select the desired sample. The sample size was 40. The collected data were analysed by using both descriptive and inferential statistical methods. Study shows that pre-test level of knowledge among selected 30 samples of hypertensive patients, reported 29 (97%) Inadequate knowledge, 1 (3%) Moderate knowledge.

### To find out the association between the pretest knowledge score of selected prehypertensive patients and the selected demographic variables

In the case of age chi square value was 2.769 which is less than table value at 9.488 level of significance. So there was no association between age and knowledge. In the case of gender, chi square value was 6.283 which is greater than the table value at 5.991 level of significance. So there was association between gender and knowledge. In the case of food habit the chi square value was 4.303 which is less than the table value at 5.991 level of significance. So there was no association between food habit and knowledge. In the case of education chi square value is 17.537 which is greater than the table value at 12.592 level of significance. So there was association between education and knowledge. In the case of occupation chi square value is 11.535 which is less than the table value at 12.59 level of significance. So there is no association between occupation and knowledge. In the case of ill habit chi square value is 4.682 which is less than the table value at 15.507 level of significance. So there is no association between ill habit and knowledge. In the case of family type chi square value is 2.219 which is less than the table value at 12.592 level of significance. So there is no association between family type and knowledge.

## CONCLUSION

The present study was conducted to assess the knowledge on DASH diet among prehypertensive patients in selected hospital at Kollam. Nursing implication of the study included in the area of nursing practice, nursing research and nursing administration.

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