



## A Descriptive Study To Assess The Knowledge of Staff Nurses Regarding Management and Prevention of Complications Related to Hypertension

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### Abstract

**Background-** Hypertension is also called silent killer disease which remains asymptomatic until the damage effect can be seen. Hypertension is a common risk factor for morbidity and mortality not in the industrialised world but also in developing countries. Thus the problem of hypertension can be truly considered as pandemic. It can be determinable to all major organs including heart, brain and kidney. It may contribute to death from heart failure, heart attack and stroke. The control of hypertension is essential even though it's a secondary aspect. The ultimate goal in general should prevent and control of hypertension. If prevention start earlier there is more likely to be effective control of hypertension. **Aim and Objective:** The study is to enhance the knowledge of the staff nurses regarding management and prevention of complications related to hypertension with view to prepare pamphlets. The objectives of the study were to assess the knowledge of staff nurses regarding management and prevention of complications related to hypertension. **Material and Method:** The Quantitative research approach was adopted and quantitative non experimental research design was used. The study sample size was 100 staff nurses. Non probability convenient sampling techniques were used to select the sample for the study. **Results:** The knowledge of staff nurses related to hypertension revealed that most of the staff nurses i.e. 47% had excellent knowledge, 24% had average knowledge, 19% had good knowledge and 10% had poor knowledge regarding management and prevention of complications related to hypertension. Overall staff nurses level of knowledge was highest 5.4(67.5%) in general information, followed by the area of complication 3.22(64.4%), than in sign and symptoms 3.81(63.5%) prevention of complication 5.24(58.22%) and lowest in management 4.40(55%) as well as in the cause and risk factor 4.47(49.66%). **Conclusion:** Staff nurses had adequate knowledge in the area of prevention of complication on hypertension, sign and symptoms, general information, whereas staff nurses had deficit knowledge on recognising the causes, risk factor and

management and hence the pamphlet which I distributed regarding management and prevention of complication related to hypertension was more effective in the staff nurses. Thus in future this kind of study can be replicated to the large group of samples.

**Key Words-** Hypertension, Nursing, Knowledge, Staff Nurse etc.

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## INTRODUCTION

Hypertension is one of the most crucial health problem and the most common chronic disease in developed and undeveloped countries although hypertension is a preventable and treatable condition but without treatment it leads to serious and life threatening complications such as heart, kidney and brain disorders which in most cases results in patients disability ,prevention plays significant role in controlling this disease which by increasing the knowledge and awareness of the public and their attitude and practice. The prevalence of hypertension was 59.9 and 69.9 per 1000 in males and females respectively in urban population and 35.5 and 35.9 per 1000 in males and females respectively in rural population.

Hypertension is a condition in which the amount of pressure exerted on the walls of the blood vessels is consistently higher than it should be. This is significant because placing too much pressure on the walls of blood vessels

could be damaging. Normal blood pressure includes systolic blood pressure of less than 120 mm of Hg and diastolic blood pressure of less than 80mm of Hg. If systolic pressure is greater than 140mm of Hg or diastolic pressure greater than 90mm of Hg hypertension is present.

The study was conducted on controlled trail of nurse counselling on lifestyle change for hypertensive treated in general practise. The patients were counselled using a stage of changed behavioural model and motivational interviewing to reduce alcohol consumption, dietary fat and salt intake, weight, cease smoking and increase leisure time physical activity. They conclude that nurse counselling targeted to specific aspect of life style can improve blood pressure control in treated hypertensive patient.

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Torrance C et al (2012) conducted a student nurse's knowledge in several areas of blood pressure measurement by sphygmomanometer and auscultation. Questions were asked about factors that might influence blood pressure; on resting the subject before Blood Pressure measurement; which arm should be used for the interval between repeat readings; the marking of mercury column; on the details of sphygmomanometer technique and recording of the result. The questionnaire was administered to a group of project 200 students nearing the end of their common foundation programme. Out of 93 students, 78 consented to take part, representing 84% of the cohort. Deficits were evident in student's background knowledge – 90% had not heard of either Korotkoff sounds or auscultators gap. Major deficit were also evident in the student's knowledge of correct measurement techniques. The result of study suggests that more attention is required in preparing students to carry out this basic nursing activity.

Nam-Ju et al (2013) conducted a study on detection of errors related to hypertension management and to apply the taxonomy to retrospectively analyse the documentation of nurses in advanced practise nurse training. In the study standard query language queries to retrieve

hypertension related data from the central database were used. Blood pressure was documented in 77.5% of encounters, 21% had high blood pressure values. Missed diagnosis, incomplete diagnosis and misdiagnosis rates were 63.7%, 6.8% and .5% respectively. In terms of treatment the omission rates were 17.9% for essential medication and 69.9% for essential patient teaching. The study concluded that the results provide an initial understanding of the nature of errors associated with hypertension diagnosis and management of nurses in advanced practise nurse training.

### **Statement of Problem**

A descriptive study to assess the knowledge of staff nurses regarding management and prevention of complications related to hypertension in selected hospitals, SGNR (Rajasthan).

### **Objectives of study**

1. To assess the knowledge of staff nurses regarding management and prevention of complication related to hypertension.
2. To find out deficit area of staff nurses knowledge regarding management and prevention of complications related to hypertension.
3. To find out relationship of staff nurses knowledge regarding management and prevention of complications related to

hypertension with selected variables e.g. age, gender, religion, marital status, course of training, area of work, year of experience, training institute, monthly income and source of information.

- To prepare pamphlets based on the management and prevention of complication related to hypertension.

**Assumption-** The staff nurses may have knowledge regarding management and prevention complication related to hypertension.

## METHODOLOGY

**Research Approach** - In this study, quantitative non-experimental research approach was adopted.

**Research Design** - The research design used for this study was quantitative non experimental design.

**Research Setting-** This study was conducted in various hospitals in Sri Ganganagar, Rajasthan namely, Tania General Hospital, Periwal Nursing Home, Astha Kidney and General Hospital etc.

**Target Population-** The population of the present study was staff nurses working in different areas of selected hospitals in Sri Ganga Nagar (Rajasthan).

**Sample Size and Sampling Technique-** The total sample size was composed of 100 staff nurses. Non-Probability

convenient sampling technique was used for selecting the samples.

**Description of Tool:** The tool was organised in two sections. They were

	Tools	No of items
Section A	Demographic Variables	10
Section B	Knowledge Questionnaire	45

### Section A: Demographic data/ Sample characteristics:

This part consists of I.Q. items for obtaining personal information about respondent such as age, gender, religion, marital status, professional qualification, area of work, year of experience, monthly income, source of information and training institute.

### Section B: Knowledge questionnaire:

The items were framed to assess the knowledge of staff nurses regarding management and the prevention of complications related to hypertension. There 6 are areas which consist of 45 items. Area wise distribution of questions:

Area	Question No.	Total no of questions
Introduction	1-8	8
Causes and Risk Factors	9-17	9
Signs and Symptoms	18-23	6
Complications	24-28	5
Prevention of Complications	29-37	9
Management	38-45	8

**Validity of the Tool-** Content validity of the tool was done by the expert's opinion regarding the relevance clarity, appropriateness of the items. As per their suggestions, needed amendments were made in the tool i.e. one item was deleted from structured knowledge questionnaire and three were modified. Finally tool consists of 45 items. In the final tool there were 10 items in demographic data and 45 items in structured knowledge questionnaire.

**Reliability of the Tool-** Reliability of tool was estimated by split half method and was calculated by applying Karl Pearson's coefficient of correlation and thereafter spearman Brown prophecy formula was used to realize the internal consistency of tool. The reliability of knowledge questionnaire tool was  $r=0.89$  and validity coefficient of tool found to be  $r=0.90$  indicate that the tool was statistically significant and thus the tool was reliable.

**Data collection procedure-** The researcher introduced herself to the subjects and explained the purpose of the study. Verbal consent was taken from staff nurses and confidentiality was assured to them. A structured knowledge questionnaire tool was given to respondents which took 35-40 minutes for completing and were assured. After collecting the filled forms the answers

were equalized and evaluated, pamphlets were distributed immediately after the data collection.

**Analysis of Data** -Both descriptive and inferential statistic analysed on the basis of the objectives and assumptions of the study. The knowledge of the staff nurses regarding management and prevention of complications related to hypertension was assessed by using mean, mean percentage, standard deviation and ANOVA Statistics used. The data was also presented graphically and in the form of table.

## RESULT

**Objective-1:** To assess the knowledge of staff nurses regarding management and prevention of complications related to hypertension

**Table 1-** Percentage distribution of level of knowledge among staff nurses regarding management and prevention of complications related to hypertension. (N=100)

Level of knowledge	Score	Knowledge score	
		N	%
Excellent (>80%)	>36	47	47.0
Good (53-77%)	23-55	19	19.0
Average (27-50%)	11-22	24	24.0
Poor (<23%)	<10	10	10.0

Max Score-45, Minimum Score-0

Majority of the staff nurses i.e. 47 (47.0%) had excellent knowledge, then 24 (24%) had average level of knowledge, followed by 19 (19%) had good level of knowledge and 10 (10%) had poor level of knowledge regarding management and prevention of complications related to hypertension.

Hence, it was concluded that majority of staff nurses had excellent knowledge regarding management and prevention of complications related to hypertension.

**Objective 2:** To find out the deficit area of staff nurses knowledge regarding management and prevention of complications related to hypertension.

**Table 2 -** Mean, mean percentage and rank order of knowledge score

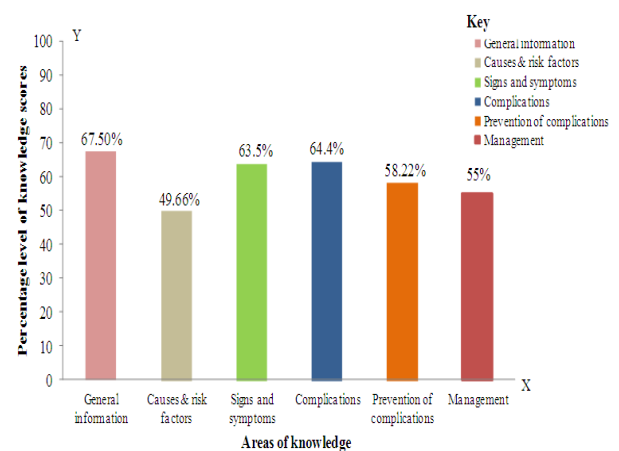
Area of Knowledge	Max. Score	Knowledge Score		
		Mean Score	Mean %	Rank
General Information	8	5.4	67.5	1
Cause & Risk factor	9	4.47	49.66	6
Sign & Symptoms	6	3.81	63.5	3
Complications	5	3.33	64.4	2
Prevention of complication	9	5.24	58.22	4
Management	8	4.40	55.0	5

Maximum Score-45, Minimum Score -0

The overall staff nurses level of knowledge was highest 5.4 (67.50%) in general information, followed by in the area of complication 3.22 (64.40%), then in sign and symptoms 3.81 (63.50%), prevention of complications 5.24

(58.22%), and lowest in management 4.40 (55.00%) as well as in causes and risk factors 4.47 (49.66%).

Hence, it was inferred that staff nurses had adequate knowledge on the area of prevention of complication on hypertension, whereas staff nurses had lack of knowledge on recognizing causes and risk factors.



**Fig- Bar Diagram of Area of Knowledge**

Mean percentage knowledge score among staff nurses regarding management & Prevention of complication related to hypertension according to area of knowledge.

### Summary

- Most of the staff nurses 48% were in the age group of 21 to 30 years and minimum 16% were in the age group above 41 years.
- Maximum of the staff nurses 78% were females and least 22% were male.
- Finding according to the staff nurses religion 56% were Sikh and minimum 4% were Muslim.

- Highest number 48% of staff nurses were married and 10% were divorced.
- According to the professional qualification of the staff nurses 46% had training of GNM course and minimum 6% had training of ANM.
- According to the area of work of staff nurses 32% staff nurses were working in wards and minimum 6% were working in OT.
- Highest number of 43% of staff nurses had less than 5 years of experience and least 12% had 11-12 years of experience.
- Majority of staff nurses 51% had course training from private colleges and minimum 7% had training from charitable colleges.
- Most of the staff nurses 57% were earning Rupees 5000 to 10000, 19% and least 11% were earning more than Rupees 15000.
- Highest number of the staff nurses 78% got information from printed media and least 7% got from friends and relatives and health care professionals.
- Most of the staff nurses i.e. 47% had excellent knowledge, 24% had average knowledge, 19% had good knowledge and 10% had poor knowledge regarding management and prevention

of complications related to hypertension.

## CONCLUSION

The staff nurses had adequate knowledge in the area of prevention of complication on hypertension, signs and symptoms and general information, whereas staff nurses had deficit knowledge on recognizing the cause, risk factor and management. Hence by teaching strategy and the pamphlet which I distributed regarding management and prevention of hypertension was more effective for the nurses.

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## Recommendation

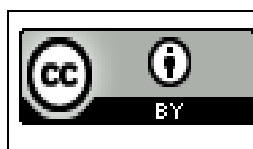
1. A similar study can be conducted with larger sample.
2. A similar study can be carried different site and setting.
3. A study can be conducted with group i.e. experimental group and control group comparison.
4. A study can be conducted by taking nursing students and find out their knowledge.

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