



Knowledge and attitude towards hypertensive emergency management among staff nurses in Dessie Referral hospital Ethiopia, 2018 G.C. A hospital based cross sectional study

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Abstract

Background: Globally, hypertension becomes an important public health issue. Hypertension emergency is an urgent and severe increment of blood pressure measurement of patients that might be related to target organ damage. Hypertension Emergency is common at an emergency department.

Materials & Methods: Hospital based cross-sectional descriptive study was used. A total of 182 study subjects were considered for the study. Ethical approval was obtained from Wollo University ethical committee also tools used were adapted from literatures used by many researchers. Stratified sampling method was used. Data were collected using structured questionnaires that measure nurse's knowledge and attitude about hypertensive emergency management. Then data entry and analysis by using descriptive statistics like frequency and percentage were performed using an excel Microsoft office spreadsheet.

Results: Of 182 samples 179 were responded. Among 179 respondents 118 (65.9%) have good knowledge, 61 (34.1%) have poor knowledge and 77(43.1%) have unfavorable attitude. Male 58(63.7%) out of 91 participant had good knowledge, Age from 20-30 years among 126, 77(61.5%) had good knowledge, experience from 7-9 years among 24, 16(66%) had good knowledge and from each department Medical ward 16(69.6%) had good knowledge. Age 31-40 years among 39, 24(61.5%) had Unfavorable attitude, Experience from 4-6 years 28(43.7%) out of 64 participant had unfavorable attitude and from each department gynecology and obstetrics out of 27, 15(55.6%) had unfavorable attitude.

Conclusion: There's good level of knowledge and Favorable attitude among the participant on the hypertensive emergency management. Male participant were more knowledgeable as compared to females participant on the hypertensive emergency management. It is recommended as communicate necessary trainings be facilitated for increasing nurses' level of knowledge and hypertensive emergency management guidelines be prepared and nurses be abide by it.

Keywords: attitude, emergency, hypertension, knowledge, nurse

Introduction

Globally, hypertension becomes an important public health issue. It causes a great risk for cardiovascular, renal, brain and eye disorders. A study on global hypertension load over 25% of adult population in 2000, this magnitude expected to rise to 29% in 2025 [1, 3]. Hypertension emergency is an urgent and severe increment of blood pressure measurement of patients that might be related to target organ damage. Hypertensive emergency is an emergency disorder explained as an elevation of blood pressure beyond 180/110 mmhg plus presence of target organ damage. But hypertension urgency is also explained in similar manner with blood pressure measurement greater than 180/110mmhg without presence of target organ damage. Related risk factors were due to increased body weight, having hypertension, psychiatric disorders and drugs related with hypertension management [4, 5]. Worldwide it causes 7.1 million premature mortality. A big proportion of global hypertension be in economically under developed states by 2025. African finding shows around 15% population has hypertension disorder. The main risk factors were obesity, weight gain, high sodium, low calcium and potassium in diet, alcohol in diet, depression and sedentary life [6, 7, 11]. Around

6% of Ethiopian people has a hypertension disorder. 30% in Addis Ababa an adult one have above 140/90 blood pressure record. In Jimma magnitude of hypertension was 13.2%. Ignorance of life style modification were most obstacles identified for patient blood pressure control [1, 3].

The advised life changes for better outcome for blood pressure be salt reduction, alcohol restriction, weight reduction, reducing a sedentary life and consuming vegetables and fruits. From the study area awareness for risk factors of hypertension and knowledge on blood pressure control was low. This low knowledge and practice associated with illiteracy, being under developed economically [8].

Hypertensive emergency management, which is the backbone of reducing Target organ damages, didn't get enough attention in Ethiopia. Moreover, in our study area there is miss management of hypertensive emergency patients observed during clinical attachment and there is scarcity of studies so we will try to investigate knowledge and attitude of Dessie Referral Hospital nurses towards Hypertensive emergency management and indicate the measures to be taken to address the problem among nurses about hypertensive emergency management.

Methods and Materials

Study design

A Hospital based cross sectional study design was used.

Setting

A referral setting was considered since it provides medical services for a large number of patients to its catchment area since it is the only referral hospital in South Wollo Zone.

Population

Target Population

All staff nurses who were working at Dessie referral hospital at the time of study.

Accessible population

Selected staff nurses who were working in Dessie Referral Hospital during the study period.

Sample & Sampling Strategy

The sample size was 182 subjects, which is determined by using single population proportion formula. This sample size was proportionally allocated in different wards since researchers believe that hypertensive emergency can occur at any department where patients were admitted. Respondents were stratified based on the educational level and their department. From each stratum, sample respondents were selected through simple random probability sampling technique.

Eligibility Criteria

Nurses who were working in Dessie Referral Hospital during data collection would be included. Nurses who had left for education, maternity, annual break, sick leave and nurses recruited within two months before data collection period were excluded from the study.

Ethical Consideration

Ethical clearance obtained from Wollo University Ethical Review Office and permission from Referral Hospital. Nurse Participants were informed about aim of the study and only volunteers were included. With respect to ethical issues, the study was not mention individuals' name and not to commit any behavior which can affect the culture and norms of the society.

Instruments

The data was collected using interviewer administered and structured questionnaire. These questioners were adapted from other different literatures to get a valid & reliable tool since they use it to study issues in relation with hypertensive emergency management many times. The tools has demographic, Knowledge and attitude hypertensive emergency management sections. From these questions closed ended questions were considered. For knowledge & attitude tools likert scale were used and means assigned based different literatures.

Data Collection

Data were collected by six BSC nurse under close supervision of investigators. To keep quality of data, the investigators were given one day training and orientation for data collectors and supervisor. We were checked the collected data every day for its completeness and clarity from the beginning until completion. Also, pretest was done

from Borumeda hospital to correct some confusing and unclear statements before commencing to actual data collection from 5% of final sample size.

Data Analysis

Data entry and analysis by using descriptive statics like frequency and percentage were performed manually by using an excel Microsoft office spread sheet. Then descriptive statistics were performed on socio demographics, knowledge & attitude variables. Quantitative data were analyzed by tabulation and interpretation was carried out by using frequencies, and percentage. Also, data were presented by using table, graphs and chart.

Results

General description of the study

From the total 182 study population 179 of nurses fill the questionnaire completely with response rate of 98.4%. In a survey total of 179 nurses filled out 15 knowledge assessment questions, 10 attitude assessment questions.

Socio-Demographic Respondents

The majority of which 92 (51.4%) were males, 87 (48.4%) were females, Only 2(1.1%) of respondents were aged above 51 year, 126 (70.4%) were within 20-30 age-group, 63(35.2%) had 4-6 years of working experience and 99(55.3%) were BSC nurses.

30(16.8%) nurses were working in emergency and intensive care unit, 44 (24.6%) nurses were working in outpatient department, 23(12.8%) nurses were working in medical department, 30 (16.8) nurses were working in surgical department, 25 (13.9%) nurses were working in pediatric and neonatal department and 27(15.1%) nurses were working in gynecology and obstetrics department.

Among 179 nurses and midwives the type of nursing profession were diploma nurses 65 bachelor nurses 99, diploma midwives 7 and bachelor midwives 8 distributed in Dessie Referral Hospital.

Marital status (married 99(53.3%), single 80 (44.7%)), Religion (Muslim 68(37.9%), orthodox 96(53.6%), catholic 7(3.9%) and protestant 8(4.5%)) [Table 1].

Knowledge status of respondents' on Hypertensive emergency management

Nurses knowledge on hypertensive emergency management have been evaluated by using structured hypertensive emergency management knowledge assessment questionnaire, majority or highest score was 118(65.9%) answered more than or equals mean of questions correctly to be in good knowledge or lowest score, 61 (34.1%) of the respondents' have poor knowledge [Fig 1].

Attitudes of nurses on hypertensive emergency management

Majority nurses 160 (89.4%) Agreed and strongly agreed for Hypertensive patient should keep away from stress inducing condition but 15(8.4%) said Disagreed and strongly disagreed and the rest 7(3.9%) were Neutral. In the other hand the majority of respondent 112(62.6%) were disagreed and strongly disagreed for Lack of proper rest and sleep does not affect blood pressure Majority of respondent out of 179 nurses scored 102(59.6%), which shows good attitude towards Hypertensive emergency management whereas other respondent scored 77(43.1%) which denotes

Unfavorable attitude towards Hypertensive emergency management [Fig. 2].

Table 1: socio-demographic characteristics of respondents in assessment of nurse's knowledge and attitude Towards Hypertensive emergency management at Dessie referral hospital March 2018.

Variable	Frequency	Percent
Category of age		
20-30	126	70.40%
31-40	39	21.80%
41-50	12	6.70%
51-60	2	1.10%
=>61	0	0
Total	179	100
Sex		
Male	92	51.40%
Female	87	48.6
Total	179	100
Marital status		
Single	99	55.30%
Married	80	44.70%
Divorce	0	0
Widowed	0	0
Total	179	100
Religions		
Orthodox	96	53.60%
Catholic	7	3.90%
Muslim	68	37.90%
Protestant	8	4.50%
Others*	0	0
Total	179	100
*=-Jhobawitness		

Table 2: Answer of respondents for knowledge assessment questions in assessment of nurses knowledge towards Hypertensive emergency management at DRH March 2018

Questions	Answer	Frequency	Percentage
1. Define hypertensive emergency	Correct	56	31.30%
	Incorrect	123	68.70%
	Total	179	100
2. What is normal blood pressure	Correct	103	57.50%
	Incorrect	76	42.50%
	Total	179	100
3. Which is the risk factor hypertension below	Correct	111	62%
	Incorrect	68	38%
	Total	179	100.00%
4. Which is sign and symptoms of present in hypertensive emergency patient	Correct	101	56.40%
	Incorrect	78	43.60%
	Total	179	100
5. What is evidence of target organ damage	Correct	107	59.80%
	Incorrect	72	40.20%
	Total	179	100
6. What is prompt diagnostic study of hypertension	Correct	151	84.40%
	Incorrect	28	15.60%
	Total	179	100
7. which of the following method are used to control hypertension	Correct	149	83.20%
	Incorrect	30	16.80%
	Total	179	100
8. what is the nutritional therapy of hypertension	Correct	158	88.30%
	Incorrect	21	11.70%
	Total	179	100
9. How can patient maintain normal body weight	Correct	163	91.10%
	Incorrect	16	8.90%

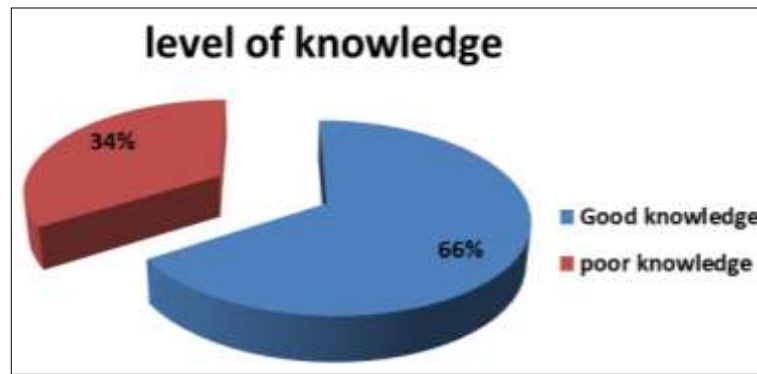


Fig 1: Percentage of knowledge about Hypertensive emergency management

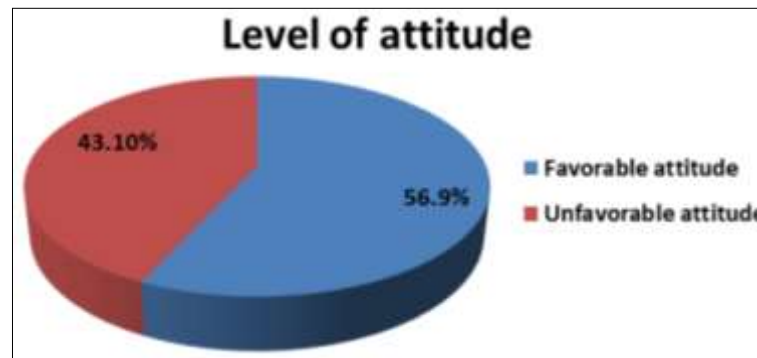


Fig 2: The level of attitude for nurses (N=179).

Discussion

In this study good knowledge among nurses who were working in the study area found to be 118 (65.9%), whereas nurses with poor knowledge were 61 (34.1%) which is in line with the study conducted in Bangladesh which was reported as 61% of nurses had good knowledge [10]. The reason for this similarity may be due to the socio demographic status, educational status, level of experience of nurses and the study areas are relatively similar.

Finally, this study revealed that knowledge and attitude of the participants were poor when comparing to study done in Egypt's and Japans nurses 61.3% and 68% respectively [9]. This variation may be due to differences in the inclusion of different professionals in the two study areas and difference study area (referral and district rural hospitals).

Conclusions

This study revealed that a good level of knowledge and Favorable attitude among the participant on the hypertensive emergency management. As the experience increase the level of knowledge also good. Diploma nurses were more know ledged as compared to degree nurse participants on hypertensive emergency management. The level of good knowledge towards hypertensive emergency management was 118 (65.9%), which was not as high as expected considering the fact that the study participants are nurses in which they are expected to be more than knowledgeable than anyone's. Besides this significant number 77 (43%) of nurses in this study also have poor attitude towards hypertensive emergency management.

It is recommended as nurses should strictly follow Hypertensive emergency management updated guideline. There is a need to communicate necessary trainings be facilitated for increasing nurses' level of knowledge and updated hypertensive emergency management protocol

/guidelines be prepared and nurses be abide by it.

Competing interests

"The authors declare that they have no competing interests"

Acknowledgement

We want to say thanks to Wollo University for giving a chance to run this research paper.

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