

Evidence based nursing practice on hypertension with an objective to prepare nursing management protocol on hypertension

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Abstract: Background of the study: Hypertension (HTN) is considered a disease of civilization because of the higher incidence of blood pressure elevation in developed countries. As per the World Health Statistics 2012, of the estimated 57 million global deaths in 2008, 36 million (63%) were due to non communicable diseases (NCDs). Non-communicable diseases (NCDs) kill 40 million people each year, equivalent to 70% of all deaths globally. **Aim:** Aim of the study was to prepare nursing management protocol on hypertension. **Material and method:** An integrative literature review approach was used in phase 1 to find out the commonality and applicability of research protocol, whereas qualitative research approach was used in phase 2, to understand the effectiveness of protocol among staff nurses. The Sampling technique was purposive sampling. Data was collected by using by open ended questionnaires. **Results:** In phase one most of the reviewed evidence base protocol agreed on accurate blood pressure monitoring and history collection should be basic step in algorithm management; most of protocols suggest that next step should be classification of hypertension for accurate management. Almost all protocol suggest that pharmacological, lifestyle changes are basic in hypertension management protocol. About 90 % of protocol suggest diuretics like thiazide, calcium channel blocker and beta blocker are effective in management. Almost all reviewed protocol agreed on lifestyle medication like smoking cessation, weight reduction, dietary management and exercise helps in the management. Based on the reviewed protocol and evidence researcher develop new nursing management protocol and implement that protocol on 20 critical care nurses to find out its effectiveness. Most of nurses felt that blood pressure monitoring is useful to assess hypertensive patient as mentioned in the protocol and classification mentioned in protocol help to provide effective care. Almost all nurses have provided positive response regarding diagnostic evaluation and life style modification mentioned in protocol. Nurses were found that, pharmacological management is effective on patient. Almost all nurses found this nursing protocol effective and agree to apply it on routine. **Conclusion:** The study finding revealed that nursing management protocol is effective for providing effective nursing care to the hypertension patients.

Key Words: Evidence based nursing practice, nursing management protocol, and hypertension.

1. INTRODUCTION:

Hypertension (HTN) is considered a disease of civilization because of the higher incidence of blood pressure elevation in developed countries.¹ largest proportion of NCD deaths is caused by cardiovascular diseases (48%). In terms of attributable deaths, raised blood pressure is one of the leading behavioural and physiological risk factor to which 13% of global deaths are attributed. ² Every fourth individual in India aged above 18 years has raised blood pressure and the prevalence has increased by 10% from 2010 to 2014.³ As blood pressure rises above 115/75 mm Hg, the risk of CVD doubles for every increment of 20/10 mm Hg.⁴ Protocol help to identify area of variation and giving prompt guidance regarding nursing management.⁵

2. STATEMENT OF THE STUDY:

Evidence based nursing practice on hypertension with an objective to prepare nursing management protocol on hypertension.

3. OBJECTIVES:

1. To review previous evidences related to the nursing practice on hypertension.
2. To prepare nursing management protocol on hypertension.
3. Implementation of protocol.

4. MATERIALS & METHODS:

An integrative literature review approach was used in phase 1 to find out the commonality and applicability of research protocol, whereas qualitative research approach was used in phase 2, to understand the effectiveness of protocol among staff nurses. Sample size constitutes 26 case studies related to Nursing Management of hypertension in Phase 1 & 30 staff nurses in Phase 2. The study was conducted at Dhiraj hospital, Piparia, Waghodia.

Inclusion criteria

Phase 1:

- The data collected from online access; pubmed, google scholar and Cochrane.
- Reviews collected from duration of 2001 to 2017.
- Reviews related to nursing management of hypertension.

Phase 2:

- Staff nurses belong to critical care areas.
- Staff nurses with more than 2 years of working experience in critical care areas.

Exclusion criteria

Phase 1:

- Reviews excluded from other websites.

Phase 2:

- Staff nurses who are having qualification of ANM and MSc.

Instrument used for the study:

This open ended questionnaire is designed to collect relevant information from staff nurses of Dhiraj hospital regarding implementation of protocol regarding nursing management of hypertension.

Data collection procedure:

After obtaining formal administrative approval from the concerning authorities and informed consent from the samples the data collection has been carried out from the demographic data. After that data was collected in the following phases;

Data collected from following:

Phase 1:

1. PubMed (U.S. National Library of Medicine and National Institutes of Health),
2. Cochrane and
3. Google Scholar

Phase 2:

The staff nurses who fulfil inclusive criteria were selected. Open ended questionnaires were given to staff nurses and relevant information obtained.

5. RESULT:

Analysis of Phase 1:

Analysis of phase 1 has been done according to following close ended questionnaires:

- Does accurate blood pressure monitoring should be initial state of hypertension management?
 - 85.7% of protocols provide evidence that accurate blood pressure monitoring should be initial state of hypertension management.
- Is the protocol emphasizing the importance of history collection and physical examination?
 - 50 % of protocols emphasize the importance of history collection and physical examination.
- Does the protocol classify hypertension?
 - 78.5% of protocols classifies hypertension.
- Is stage 1 hypertension defined as 140-159/90-99?
 - 57.1% of protocols defined stage 1 hypertension as 140-159/90-99
- Does pharmacological management, lifestyle modification and nursing management stated as basic component in management of hypertension?
 - All the protocols emphasize evidence of pharmacological management, lifestyle modification and nursing management stated as basic component in management of hypertension.
- Is thiazide type diuretic effective in management of stage 1 hypertension?
 - 50% of protocols emphasize on thiazide type diuretic effective in management of stage 1 hypertension.
- Is the patient advised to reduce weight if obese?
 - 64.2% of protocols gives evidence that patient advised to reduce weight if obese.
- Is salt restriction essential for management of the hypertension?
 - 64.2% of protocols stated that salt restriction essential for management of the hypertension.
- Does cessation of smoking help in reducing risk of hypertension?

- 64.2% of protocols stated cessation of smoking help in reducing risk of hypertension.
- Does cessation of alcohol help in reducing risk of hypertension?
 - 64.2% of protocols confirms cessation of alcohol helps in reducing risk of hypertension.

Analysis of phase 2:

Following questions were given to the samples and according to their views inference has been drawn regarding the protocol.

- Do you feel that blood pressure monitoring is useful to assess hypertensive patient as mentioned in the protocol?
 - Most of the samples feel that blood pressure monitoring mentioned in protocol is useful because it help to diagnose patient and according to hypertension level it's easy to categories patients and providing prompt management.
- Do you think that classifying hypertensive patient is providing care accordingly?
 - Yes, classifying hypertensive practice is helpful as this protocol is evidence based and classification of hypertensive patient help to care hypertensive patient accordingly. This statement was given by 85% of the samples.
- Do you think that measures mentioned in the protocol regarding life style modification are appropriate?
 - The samples stated that life style modification measures in protocol is appropriate and correct as smoking, alcohol and overweight are the risk factors for hypertension and can affect the blood pressure. So by giving health education regarding cessation of these modifiable risk factors risk of hypertension can be reduced.
- Do you think that this nursing protocol is beneficial to the patient in life style modification?
 - Most of the person agrees that this protocol is beneficial for life style modification because this protocol is based on evidence and life style modification measures mentioned in protocol are definitely useful in management of hypertension. As exercises and weight reduction are the important measures.
- Do you feel this protocol is useful in collecting data pertaining to diagnostic evaluation?
 - Many samples think that diagnosis of hypertension is normally based on history collection, blood pressure monitoring and physical examination and ECG helps to diagnose hypertension accurately. So most of person agree that this protocol is helpful to collecting data to diagnose hypertension.
- In nursing interventions regarding pharmacological management effective?
 - Most of samples have given their positive view regarding pharmacological management mentioned in this protocol. They believe that intervention regarding hypertension is evidence based and divided in categories. It is more effective to give medication according to stages and it's easy to provide best & effective intervention.
- Have you noticed this protocol is aid you in preventing complication of hypertension?
 - Majority of samples given statement like, yes; as this protocol is based on evidence and provide appropriate care of hypertension from diagnosis to management so the protocol help to diagnosis hypertension appropriately and help to provide effective care according to different category which definitely help to prevent hypertension complication.
- Do you believe that this nursing protocol is effective in management to hypertension patient as compared to routine care?
 - Most of the samples believe that, this protocol is much effective in management of hypertension as the protocol provide clear picture related to management and supported by evidence. Other than the routine care, this protocol help to provide qualitative care so there is less chance of any complication.
- Do you assume this nursing protocol is implementable in trace the etiological factors of hypertension?
 - 98% of samples stated that this protocol is advising to collect detail history collection of the patient and giving evidence regarding many diagnostic evaluation which can be carried out in the patients who suspected for hypertension. So by knowing these factors nurses can trace etiological factor of hypertension.
- Do you consider that such protocols help in organizing and implementing the quality nursing care?
 - Many samples give their review that there is such protocol regarding nursing care of hypertension and it is based on evidence and it provide the effectiveness of nursing management which increase the confidence of nurses to provide preventive, promotive and curative care to the patient. So it will automatically increase the quality of nursing care.
- Will you adopt this protocol in your routine nursing care? Why?
 - Participants shown their promptness to adopt this protocol in routine nursing care because it is based on evidence and provide brief knowledge regarding management of hypertension. All the necessary things from history collection, diagnostic evaluation, lifestyle modification to pharmacological

management are give in this protocol. It is very essential to provide preventive, promotive and curative care to the hypertensive patients.

6. DISCUSSION:

The aim of study was to develop evidenced based nursing management protocol on hypertension. Evidence based treatment protocol on hypertension management was described by WHO, which is showing better management outcome if health care personnel following it while providing care to hypertensive patient.⁶ American Heart Association has stated that, the use of evidence-based protocols is one strategy to manage and lower cholesterol levels among patients with established ASCVD and patients at risk for heart attack, stroke, or ASCVD.⁷ A study suggested that Standardized treatment with use of protocol will help clinicians, teams, and patients achieve and maintain healthy blood pressures and thereby prevent myocardial infarction and stroke.⁸ a study shown that evidence based protocol is providing uniformity in providing care to the patients with hypertension.⁹ A study given evidence of, clinician empathy increases patient trust, motivation and adherence to therapy. By the use of protocol clinicians can consider patients' cultural beliefs and individual attitudes in formulating a treatment plan and simplifying medication regimens.¹⁰

7. CONCLUSION:

The present study was conducted to develop an evidence based nursing practice protocol on nursing management of hypertension. Reviewed literatures supported that, protocols are useful in providing initial guidelines to nurses while handling patients with hypertensions. Nurses stated that protocol is very helpful while providing care to hypertensive patients. This suggests that nursing management protocol is very useful tool for nurses.

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