



Asian Journal of Research in Biological and Pharmaceutical Sciences

Journal home page: www.ajrbps.com



KNOWLEDGE ASSESSMENT OF HYPERTENSIVE PATIENT FROM AN URBAN CLINIC

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ABSTRACT

Hypertension is one of the major chronic diseases resulting in high mortality and morbidity in today's world. High blood pressure is called as silent killer because it damages our health without making one feel sick. Socio-economic, behavioral and nutritional and public health issues have also led to increase in cardiovascular disease throughout the world. The basic aim of this study is to assess the awareness and knowledge of patients about hypertension. Assessment of patients' knowledge about the disease and its treatment are the key components for planning an effective educational intervention. Based on expert reviews and content validity evaluation, a 23 - item questionnaire was designed and piloted. Items were added, modified and deleted based on the discussions during the various changes of development of questionnaire. A total of each 50 questionnaires were collected from the patients. An attempt was made to categorize the overall study population based on their gender, family history. The sample consisted of 32 male and 18 female patients. The analysis revealed that most of the patients were educated, 70% of patients were skilled employee. 40% of patients were suffering from hypertension for more than 2 years. 64% patients were taken other medication for their other illness. There are several limitations to the interpretations of this study. Currently, there is no standardized instrument available to assess hypertension knowledge, attitudes and life-style practices. The finding of the study may be useful in developing more effective education strategies for hypertensive patients in near future.

KEYWORDS

Hypertension, Knowledge assessment and Questionnaire.

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INTRODUCTION

Health-seeking behaviour is a part and parcel of a person's, family's or community identity being the result of an evolving mix of personal, experiential and sociocultural factors. It varies for the same individuals or communities when faced with different diseases such as tuberculosis, HIV/AIDS and hypertension¹⁻³. The desired health-seeking behaviour is for an individual to respond to an

illness episode by seeking first and foremost help from a trained allopathic doctor in a formally recognized healthcare centre⁴. Recent surveys reveal continuing deficiencies in the awareness, treatment and control of hypertension. In many cases, failure to achieve BP goals may be attributable to the poverty of patients' knowledge, perception, attitudes and life-style practices⁵⁻⁹. Hence assessing the knowledge, perception, attitudes and life-style practices of hypertensive patients is vitally important in achieving hypertension control goals at the population level and also for meeting quality standards in healthcare delivery⁴. Hypertension remains a major global public health challenge that has been identified as the leading risk factor for cardiovascular morbidity and mortality as well as all-cause mortality¹⁰⁻¹². Being the pivotal determinant of cardiovascular complications such as coronary heart disease, myocardial infarction, stroke or renal insufficiency, hypertension affects approximately 1 billion people worldwide (4.5% of the current global disease burden), 340million of these in economically developed and 340 million in economically developing countries. Annually, it causes 7.1 million (one-third) of global preventable premature deaths¹²⁻¹⁴. The prevalence of hypertension varies within different countries. The overall global prevalence among adults was recently estimated to be 26.6% in men and 26.1% in women¹².

The profession of pharmacy has undergone dramatic changes over the past decade. The disease management along with technological improvement in patient care. Pharmacists in a variety of practice settings are participating in disease management and are beginning to demonstrate their value in the management of several high cost diseases. One of the components of disease management programme is patient education programme. The intervention component of a DM program can consist of clinical practice guidelines; case management by nurses, pharmacists, or other health professionals; patient education programs; and administrative interventions aimed at avoiding duplicative services and ensuring appropriate timing of visit. The targeted outcomes

of these programs generally include clinical goals that, if achieved by a sufficient number of patients, will result in a saving that equals or exceeds the financial costs of the program itself. The term *care management* is sometimes used interchangeably with *disease management*, especially when referring to the management of conditions rather than diseases (e.g., pain)¹⁵.

The BP goals and the lifestyle modifications are poorly known by the hypertensives¹⁶. The face of hypertension has been changing rapidly over the last few decades, from a serious disease to a cardiovascular risk factor. Patient education has been instrumental in bringing about tremendous improvements in hypertension-related mortality, morbidity, life expectancy, and life quality. Patient education has evolved from an adjunct to medical therapy to an intervention in its own right. In this process patient education tasks and techniques themselves have undergone remarkable developments, driven by evolving patient needs due to medical progress. The same is true for the roles of patients and health care providers. Dealing with hypertension is a behavior change process which demands serious learning efforts from all parties involved, patients, health practitioners and health care administrators alike. This paper focuses therefore on patient education for preventive behavior change and risk factor management. Special emphasis will be placed on processes and tools for effective patient education¹⁷. Adherence to medication is a critical factor in the continued health and well-being of patients with hypertension. Patients' acceptance of medical advice and information may be influenced by their subjective beliefs about their health condition; therefore, it is essential that their beliefs be taken into account when giving health advice or medical treatment. The findings suggest that patients' greater perception of control over trying to reduce blood pressure may result in decreased reliance on medications and subsequent nonadherence to drug therapy¹⁸.

Patients may need to be taught the difference between curing hypertension and treating it with medications. Efforts to educate the public that

lifestyle modifications can prevent hypertension and that it usually causes no symptoms need to continue. It seems especially important to develop messages that reach African-Americans and people with less education. Identification of gaps in people's knowledge about hypertension can aid in the development of messages to enhance that knowledge. The identification of groups more likely to have lower hypertension knowledge can inform the targeting of educational messages¹⁹. An assessment of patient knowledge of high blood pressure ought to be a starting point for educational strategies that aim to deepen patients' understanding of their state of health²⁰.

METHOD

Almost all human life has been touched in some way by disease or illness. Some disease may be cured in due course of treatment but still there are some diseases, which need more attention by physician, pharmacist and the patients to control it one kind of such disease which need attention is hypertension which is caused due to increased blood pressure in arteries. It is symptomless, but increase the risk of various other cardiovascular disease like stroke, heart attack and non-cardiovascular disease like renal damage, end stage renal failure. The aim of this study is to determine the knowledge assessment of hypertensive patient^{21, 22}. The practice of pharmacy is continuing to undergo a paradigm shift from a dispensing - focused to a patient care focused profession. With the advances in technology and the increased supply of pharmacy technicians, pharmacists have more time to provide clinical services. One area in which pharmacists have seized the opportunity to become involved in patient care is disease management. The study on knowledge assessment of hypertensive patient was carried out in Jaswant Rai Multispeciality hospital located in Meerut. The hospital is unique and well known for its services to people who come from all over the district.

Study design

Assessment of patient's knowledge about the disease and its treatment are the key components for planning an effective educational intervention. The

first step of our study was to design a suitable questionnaire to meet objectives of our study. The format contains the details such as name, age, gender, education, occupation, monthly income and it consists of a series of question to evaluate what patients understand about their hypertension. Based on expert reviews and content validity evaluation, a 23 - item questionnaire was designed and piloted. Items were added, modified and deleted based on the discussions during the various changes of development of questionnaire. In order to test the suitability of the questionnaire the researcher administered for pre-testing with 3 respondents. The pre-test helped the researcher to frame the questionnaire more clear, practicable and simple. Few irrelevant questions have been dropped / modified. The next step was to develop educational material that suits the needs of our patients. The goal of our educational programme was to provide verbal information to hypertensive patients supplemented with simple, understandable and readily usable patient information pamphlets (PIP). PIP on hypertension, types, warning signs, risk factors, diagnosis and treatment were prepared both in English and Hindi language (the local language of study population) after considering expert opinions as in death literature review. A patient preform was separately designed. This format contains patient details such as name, sex, gender, outpatient number, date of visit, date of review, family history, diagnosis, medication chart. About 63 questionnaires were collected from the patients. After scrutinizing the filled questionnaire, there are 50 questionnaire were selected. 13 questionnaires were removed because these questionnaires were filled partially and make tick for two answers.

RESULTS

The study was conducted in the Jaswanth Rai superspeciality hospital, meerut from Feb to April 2009. A total number of 50 questionnaires were collected from the patients.

Analysis is based on the data collected from the patients

A total of each 50 questionnaires were collected from the patients. An attempt was made to categorize the overall study population based on their gender, family history. The sample consisted of 32 male and 18 female patients. The analysis revealed that most of the patients were educated, 70% of patients were skilled employee. 40% of patients were suffering from hypertension for more than 2 years. 64% patients were taken other medication for their other illness (Table No.1).

Awareness of hypertension

In the current study, 70% of patients know about their disease. 60% of participants reported that a blood pressure of 120/80 mm Hg was normal.76% of the patients know about high blood pressure can cause kidney problems and more than 90% of the patients aware about high blood pressure can cause heart attack and stroke. Also they were having the awareness of eating less salt to reduce the blood pressure (Table No.2).

Statistical analysis

According to one way student - t test, it is statistically significant at 0.05 level, i.e, patients having awareness about their disease (Table No.3).

DISCUSSION

We found that the present survey demonstrate that 70% hypertensive patients in the sampled population having awareness about their disease. There were, however, knowledge deficits identified, including

the definition of a normal blood pressure and hypertension has a lifelong duration, The finding of the study shows that most hypertensive patients are highly educated, 40% are graduate and 22% are postgraduate. 20% of the patients were affected by hypertension for more than two years. Most of the patients depend upon their cardiologist for the information about hypertension. The results of the study point out that without education, patients' level of knowledge about the cause, treatment and application of the hypertensive drug were inadequate.

There are several limitations to the interpretations of this study. Currently, there is no standardized instrument available to assess hypertension knowledge, attitudes and life-style practices²¹. Another limitation, that we can also extend this research work to analyse knowledge of patients in hypertension before and after patient education programme, which require the conduction of special patient education programme regarding the particular disease. The finding of the study may be useful in developing more effective education strategies for hypertensive patients in near future. Nevertheless, it is hoped that our findings will be worthwhile in health planning for the studied area and in implementing awareness programme to improve knowledge, attitudes, life-style practices and control of hypertension.

Table No.1: Patient Demographics and Characteristics

S.No	Patient Demographics	No. of Patients
1	Age [Mean ±SD]	52.58 ± 13.36
	Gender	
	Male	32
	Female	18
	Family history of hypertension	39 (78%)

Table No.2: Hypertension knowledge items and percentage of participants with correct responses

S.No	Hypertension Knowledge items and percentage of participants with correct responses	Response options	% Correct
1	Do you know about hypertension	Yes, No	70
2	Normal blood pressure range is	120/80 mmHg, 130/80 mmHg, 140/90 mmHg, I don't know	60
3	Blood pressure rises as body weight increase	Yes, No	56
4	There is a diet plan that can help lower or even prevent high blood pressure	Yes, No	70
5	If you make healthy lifestyle changes you won't need medication for high blood pressure	Yes, No	40
6	High blood pressure can cause kidney problems	Yes, No, Don't know	76
7	High blood pressure can cause heart attacks	Yes, No, Don't know	94
8	High blood pressure can cause strokes	Yes, No, Don't know	98
9	Eating less salt usually makes blood pressure ...	Go up, go down, stay the same	86

Table No.3: Student - t test

S.No	Student – t test	Mean ± SEM
1	Patient awareness	31.5333 ±2.832

CONCLUSION

The finding of the study may be useful in developing more effective education strategies for hypertensive patients in near future.

ACKNOWLEDGEMENT

We are grateful to the staff and patients of the health facilities used in this study as well as the interviewers for their invaluable assistance.

CONFLICT OF INTEREST

None declared.

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Please cite this article in press as: A. Vikneswari et al. Design, Knowledge Assessment of Hypertensive Patient from an Urban Clinic, *Asian Journal of Research in Biological and Pharmaceutical Sciences*, 2(4), 2014, 183-188.