AWARENESS OF DISEASE AND SELF CARE AMONG HYPERTENSIVE PATIENTS ATTENDING TRIBHUVAN UNIVERSITY TEACHING HOSPITAL, KATHMANDU, NEPAL.

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Abstract:

Background: *Hypertension (HTN) is a major risk factor for cardiovascular and renal diseases. The prevalence of hypertension has substantially increased during the past four decades. Information on prevalence as well as awareness regarding treatment and prevention of hypertension is scarce particularly in rural settings. The levels of awareness, treatment, and control of HTN vary between different countries and population groups*. Objectives: The objective of this study was to find out the awareness of hypertensive patients about *their own disease and self care.* Methodology: *Descriptive cross sectional study was conducted among 50 hypertensive patients who were admitted to Tribhuvan University Teaching Hospital (TUTH) and attended to medical OPD. Data was collected by using interview schedule by face to face interview method.* Results*: Among 50 hypertensive patients, 56% were aware about meaning of hypertension, 68% symptoms, 34% cause, 62% prognosis, and 62% complication of HTN. Likewise regarding self care, 70% were doing regular follow up, 92% using regular medication, most of them (80%) were not smoker and 84% were non alcoholic, and 74% taking low fat and low salt diet.* Conclusion: *Study finding reflects many of them (56%) had more than 50% of knowledge about the hypertension and more than half (54%) were giving more than 50% emphasis about their own self care.*

Key words*: Awareness, Hypertension, Control, Self care, Treatment*

Introduction:

Hypertension (HTN) affected 26.4% of the world's adult population (972 million) in 2000, and the rates are expected to increase to 29.2% (1.56 billion) by 2025. In particular, the global burden of HTN is highest in developing countries, although the prevalence may be comparatively lower than that in developed countries.[1] Cardiovascular disease is rapidly becoming a major cause of morbidity and mortality in developing countries throughout the world.[2,3] Hypertension is one of the major risk factors leading to an increased risk of stroke, myocardial infarction, end-stage renal disease, congestive heart failure and peripheral vascular disease.[4] Despite the availability of effective agents, the control rate is low, with less than 5% of patients with hypertension having adequate control[5.] HTN can be effectively controlled by antihypertensive drug therapy, educational and lifestyle interventions.[6,7] Unfortunately, the levels of awareness, treatment, and control of HTN vary between different countries and population groups. HTN awareness among hypertensive individuals ranged from 25.2% to 75.0%, whereas treatment ranged from 37.9% to 89.6% among

those aware of their HTN status.[8]However, little is known about the factors associated with awareness, treatment and control of HTN. Therefore, information on prevalence, awareness, treatment, and control and self care of hypertension in these poor resource settings is very scarce. The aim of the present study is to further elucidate the demographic factors that are associated with the awareness about disease and self care in order to better understand public awareness of the problem. This information is a pre-requisite to improvement of current clinical management.

Methodology:

Descriptive cross sectional study was conducted in the Medical Ward and Medical OPD of Tribhuvan University Teaching Hospital, Maharajgunj Kathmandu among the known cases of hypertension. A total of fifty hypertensive patients were included in the study following non probability purposive sampling method and adult patients with hypertension were included in the study whereas those who had developed complication of hypertension and severely ill patients were excluded from the study. Semi structured and structured interview schedule was used to collect necessary information using face to face interview technique by the researcher herself. For calculation of knowledge score, total nine questions regarding knowledge of hypertension and sixteen questions regarding self care was asked to all patients. Each affirmative answer was given one mark and total percentage was calculated based on their answers. Validity and reliability of the instrument was maintained by doing extensive literature review, consulting with experts and doing pretesting of the questionnaire. Collected data was checked, rechecked and edited at the end of data collection and coding and categorization was done. Data entry and analysis was done using Microsoft Excel and SPSS 11.5 version. Verbal consent was taken from the participants to participate in the study. Respondents were acknowledged for their participation in the study.

Results:

Among 50 hypertensive patient, many (44%) of the respondents were among middle age group. Higher percentage were male (54%) and (52%) from rural area. More than half (64%) were literate and 46% were suffering from hypertension between 1 to 5 yrs**. (Table no. 1)**

The awareness of hypertensive patient about their own disease is shown in **Table 2**, More than half (56%) of them were aware about the meaning of hypertension and 58% thought that the most common age group susceptible for hypertension is middle age group (40 to 59yrs). Regarding the reason of hypertension 34% thought that it is due to hereditary and stress. Another 34% thought that it is due to all the reasons like age, obesity, smoking, alcoholism, stress and hereditary factors. Most of them (84%) were aware about sign and symptoms of hypertension. Regarding prognosis, 62% of them thought it is controllable whereas 4% had no knowledge about it. And almost all patients were aware about control measure of hypertension and 62% of them knew about complications of hypertension.

Table 1: Distribution of Socio demographic variables of respondents (N=50)

Characteristics	Categories	No	Percentage
Age in years	20 - 39	10	20
	40 – 59	22	44
	60 and above	18	36
Sex	Male	27	54
	Female	23	46
Residence	Rural	26	52
	Urban	24	48
Education Status	Literate	32	64
	Illiterate	18	36
Duration of hypertension	Less than 1 years	14	28
	1 – 5 years	23	46
	5- 10 years	4	8
	More than 10 years	9	18

Regarding the habit of doing self care related to their own disease, 80% were not smoker and almost 84% did not have habit of taking alcohol **(Table 3).** Most of them (74%) had habit of taking low salt and low fat diet. More than half (64%) had habit of doing regular physical exercise and 62% were using different measure to reduce stress. Similarly 92% of them were taking their medication regularly but some of them (10%) were changing their doses of their medication by themselves. Thirty percent of them were discontinuing their medicine anytime. It was very good practice that 70% of them were doing regular follow up, and 74% were checking their blood pressure regularly.

Maximum knowledge score about hypertension is 88.8% (8) was obtained by 10% (5) of respondents and minimum score was 22.2% (2) by 4% (2) respondents. Similarly the maximum score of awareness about self care was 87.5% (14) was obtained by 4% (2) of respondents and minimum score was 26.5% (4.25) which was obtained by 2% (4) of respondents

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Table 2: Distribution of respondents according to their knowledge about hypertension (N=50)

Knowledge	Responses	No	percentage
Meaning of hypertension	Yes	28	56
	No	22	44
Beliefs of most affected age group	20- 39yrs	4	8
	40- 59yrs	29	58
	60 yrs and above	3	6
	No idea	14	28
Reason of hypertension*	Overweight and old age	11	22
	Smoking and alcoholism	13	26
	Hereditary and stress	17	34
	All of above	17	34
Sign and Symptoms of Hypertension*	Dizziness and fatigue	24	48
	Headache and palpitation	32	68
	Flushing face and blurred vision	13	26
	No idea	8	16
Prognosis	Controllable	31	62
	Curable	9	18
	Not curable	8	16
	No idea	2	4
Control Measures*	Reducing weight and stress	16	32
	Intake of low salt and low fat diet	43	86
	By regular exercise	23	46
	By medication	26	52
Complication of hypertension	Know	31	62
	Don't know	19	38

* = *Multiple response answers*

Table 3: Distribution of respondents about habit of doing self care (N=50)

Self care practices	**Responses**	**No**	**percentage**
Smoking	Yes	10	20
	No	40	80
Alcoholism	Yes	8	16
	No	42	84
Dietary habit	Low fat and salt diet	37	74
	Low salt	11	22
	Low fat	2	4
Physical Exercise	Regular exercise	32	64
	No regular exercise	18	36
Using Measure to reduce stress	Yes	31	62
	No	19	38
Taking medication	Regularly	46	92
	Irregularly	4	8
Changing dose by themselves	Yes	5	10
	No	45	90
Discontinuing medicine anytime	Yes	15	30
	No	35	70
Follow up	Regular	35	70
	Irregular	15	30
Monitoring blood pressure	Regularly	37	74
	Irregularly	13	26

Discussion:

Health care resources are scarce, and focusing investment in areas that would render the greatest benefits with the least cost needs to be identified. Morbidity and mortality from cardiovascular disease is high. Self-care can be defined as activities that a patient undertakes with the intention of improving health or preventing disease. Self-care for hypertension includes taking medicine as prescribed, monitoring blood pressure response to therapy, and adopting lifestyle recommendations increasing exercise, decreasing salt intake. Present study examined the level of awareness of hypertensive patients about their own disease and self care. The prevalence of hypertension was higher 44% among middle age groups (40-59yrs) followed by young adults (20-39yrs) 36% whereas WHO study 1996[9]showed 30% in above 30yrs and 14.19% among young adults. In a study in the productive age groups (30–49 years), 36.5% of the males were affected and 27.1% of the female affected.[10] Our study showed male more suffered from hypertension 54% supported by other study[11].

This study showed 56% of respondents were aware about hypertension which is higher than the study done in China 29.5%[12] and study done in Kathmandu valley 41.1%. Main reason of hypertension given by respondents were hereditary and stress 34% and another 34%

thought all the given factors i.e. overweight, old age, smoking, alcoholism, hereditary and stress. This study reflects control of hypertension can be done by taking low fat and low salt diet similar to the other studies which showed by doing regular exercise, changing healthy dietary habits. These healthy activities can control blood pressure of 25% of people and reduce by 77% by controlling weight and 35% by reduction of sodium in diet.[13] Another study showed 80% of the patients knew they should limit their salt intake, only one third always avoided salty foods.[14]Patients should be advised that excess salt ingestion will increase blood pressure. Salt restriction could make the difference between needing only 1 rather than 2 antihypertensive agents. Daily smokers were less likely to be aware of having HTN or being treated, whereas ex-smokers were more likely to be aware of their diagnosis. A possible explanation might be that some smokers quit smoking by themselves or followed by physicians' advice after detection of HTN.

Individuals who drank alcohol were also more likely to be untreated if they had HTN.[15]Similarly this study shows 80% had no habits of smoking and 84% were not taking alcohol. Additionally, 25% of the patients did not appreciate the risk of alcohol use and 36% believed they should drink a lot of fluids.[14]The Joint National Committee 7 (JNC 7) also recommends that male patients consume not more than 2 alcoholic drinks per day and female patients no more than 1 drink per day. Limiting alcohol consumption may decrease (Systolic Blood Pressure) by 2 to 4 mm Hg. The JNC 7 recommends that patients involve themselves in aerobic exercise for at least 30 minutes per day on most days of the week. For approximately every 20 pounds of weight lost, it is believed that patients may reduce their SBP by 5 to 20 mm Hg.[16]This study showed more than half (64%) had habits of doing regular exercise supported by other study which mention that exercise can help to reduce blood pressure and keep weight down. It is also a good stress reliever.[17]This study found out 92% of them were taking their medication regularly and more than 90% never change their drug by themselves 70% of them did not discontinue their medication.

Despite the availability of effective treatment, over half of the patients being treated for hypertension drop out of care entirely within a year of diagnosis and of those who remain under medical supervision only about 50% take at least 80% of their prescribed medications.[18]Similarly the present study showed that 70% of them were doing regular follow up, and 74% monitoring their blood pressure regularly and 40% were using blood pressure control measure if their blood pressure increases. So highest knowledge score about awareness of hypertension was 88.8% by 10% respondents and highest knowledge score of awareness of self care was 87.5% obtained by 4% respondents.

Conclusion:

The results of present study suggest that level of knowledge about disease and self care is good among the study population. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure states that self measurement of blood pressure may benefit patients by providing information on response to antihypertensive medication and improving adherence with therapy. The study also notes that the patient and clinician must agree on blood pressure goals. That patient motivation to adopt lifestyle changes and take prescribed medication improves when patients have positive experiences. Study suggests that there should be more research to find out new strategies to tackle these issues of awareness and self care about Hypertension.

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