

# Hypertension Knowledge, Attitude and Practice in Adult Hypertensive Patients at LUMHS

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## ABSTRACT

**OBJECTIVE:** To study the knowledge, attitude and practice about hypertension in adult hypertensive patients at LUMHS

**METHODOLOGY:** The prospective and descriptive, study was carried out on one thousand diagnosed hypertensive patients from Jan 2010 to Sep 2010 at medical outdoor department of LUMHS. Appointed medical persons questioned the patients assessing various factors as lifestyle and risk factors. The special case sheets were prepared, containing all the information as name, age, sex, address, family history, personal history, marital status of the patients. Case sheets were containing special questionnaire to study the knowledge about hypertension, its control and complications. Results were analyzed by SPSS 10.

**RESULTS:** The age of patients ranged from 19 years to 95 years with mean age of 50.5 years and median age of 47.5 years. Forty eight percent patients belonged to grade 1 education grade, thirty two percent belonged to grade 2, thirteen percent belonged to grade 3, and seven percent belonged to grade 4. Ten percent patients can explain the hypertension, mostly in higher education grade. Seventy six percent patients can tell that salt is not good for hypertension. Twenty two percent patients had good compliance about the drugs. Fifty percent can say good control is advantageous for health. Six percent have knowledge about complications. The education grades and result of questionnaire is shown in Table I.

**CONCLUSION:** Our study concludes that a significant proportion of hypertensive patient's have poor knowledge about hypertension.

**KEY WORDS:** Hypertension, Knowledge, Attitude, Awareness.

## INTRODUCTION

Hypertension a silent killer is a major risk factor for cardiovascular disease worldwide and is one of the most important reasons to visit to physician<sup>1</sup>. Hypertension leads to various complications as increased risk of stroke<sup>2-4</sup>. Good control of blood pressure will result in prolonged survival<sup>5-6</sup>. Increasing the knowledge, awareness, and control of hypertension will reduce morbidity and mortality. Studies show that many patients did not have appropriate knowledge about hypertension<sup>7</sup>.

Uncontrolled hypertensive's can be educated by special programmers. Hypertension has also been thought as a standard for the quality of a health care system<sup>8</sup>. The study on residents provides new insight into the practice patterns of physicians in treating hypertension<sup>9</sup>. The study conducted on hypertensive strokes shows that there is a considerable difference between evidence based recommendations and actual practice of physicians in managing hypertension in stroke patients<sup>10</sup>. This would require an urgent attention to emphasize evidence based practice.

Most of people are unaware of regular visit to medical persons. In a study conducted in medical students at time of entry test, out of 179; 52(29.05%) were hyper-

tensive. In long term follow up only 4(2.24%) were found to be hypertensive<sup>11</sup>. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure<sup>12</sup> (JNC-7) reports that 50 million Americans were hypertensive ( $\geq 140/90$  mm Hg); of these, 70% know that they are affected, but only 50% are treated and 25% controlled (140/90 mm Hg). It has been found that combined home blood pressure monitoring and telephone intervention improved blood pressure control at 24 months relative to usual care<sup>13</sup>. During 1976 to 1980, 50% of adults with hypertension were unaware of it, through programs of professional, patient, and public education, today more than 75% of Americans are aware<sup>14</sup>. The identification of groups more likely to be unaware can inform the targeting of educational messages.

To achieve the good control of blood pressure, the programs like national public health programs and initiatives such as the National High Blood Pressure Education Programs as in U.S are required<sup>15</sup>. Considering the high morbidity and mortality due to hypertension, and knowing that if a patient has knowledge about the disease, patient will be more careful about the management, and a better control can be achieved. This study was conducted to know about

knowledge, attitude and practice about hypertension in adult hypertensive patients at (LUMHS) Liaquat University of Medical and Health Sciences.

## METHODOLOGY

The prospective and descriptive study was carried out on one thousand diagnosed hypertensive patients in the months of Jan 2010 to Sep 2010. The study is conducted to assess basic hypertension knowledge, attitude and practice among hypertensive patients in LUMHS Sindh, to determine whether knowledge of various aspects about hypertension varies across sub-groups. Appointed medical persons questioned the patients assessing various factors as lifestyle and risk factors. Special case sheets were prepared, containing all the information as name, age, sex, address, family history, personal history, marital status about the patients. Criteria used for hypertension were from JNC 7. Upper limit for controlled blood pressure was taken as 139/89 mmHg. Above which was considered as uncontrolled blood pressure. The upper limit for controlled blood pressure was taken as (129/79) in diabetics and patients with kidney disease.

Case sheets were containing special questionnaire to study the knowledge about hypertension, its control and complications. To assess this questionnaire education status of patient was divided into four education grades (E grade). Education Grade 1: Never gone to school, Education Grade 2: Less than secondary school, Education Grade 3: Secondary school, Education Grade 4: College or more. Though all personal information was taken but few questions were analyzed. Questions asked were: What is hypertension? What is role of salt intake in hypertension? What is the compliance about drugs? What is advantage of good control? What are the complications, effect on heart, kidney and brain? Patients were from both the urban and rural areas. Patients were diagnosed and being treated by various doctors in the catchment area. Inclusion criteria were; History of hypertension, and history of taking antihypertensive medicines for at least

one month duration. Results were analyzed by SPSS 10.

## RESULTS

One thousand patients were enrolled in this study. 431 (43.1%) patients were females and 569 (56.9%) patients were males. 439 (43.9%) patients were from rural areas and 561 (56.1%) were from urban areas. Their ages ranged from 19 years to 95 years with mean age of 50.5 years and median age of 47.5 years. 359 (35.9%) patients were below 40 years of age and remainders were above the age of 40 years. Family history of hypertension was positive in 486 (48.6%) patients. 552 (55.2%) patients were smokers. Forty eight percent patients belonged to grade 1 education grade, thirty two percent belonged to grade 2, thirteen percent belonged to grade 3, and seven percent belonged to grade 4. Ten percent patients can explain the hypertension, mostly in higher education grade. Seventy six percent patients can tell that salt is not good for hypertension. Twenty two percent patients had good compliance about the drugs. Fifty percent can say good control is advantageous for health. Six percent have knowledge about complications. The education grades and result of questionnaire is shown in **Table I**.

## DISCUSSION

It has been studied that in west 82% know the meaning of hypertension, while 90% high blood pressure patients know that normalization will improve their health<sup>16</sup>. Most of the admitted cardiac patients do not know their blood pressure levels. We performed analyses regarding knowledge, control and complications of hypertension. Our study revealed that educated people (Education grade 4) had better understanding of hypertension than patients who were less educated (Education grade 3 and less). Educated people were able to understand the complications of blood pressure more effectively. It has been observed that more educated (E grade 4) patients were able to

**TABLE I: HYPERTENSION: KNOWLEDGE, ATTITUDE AND PRACTICE IN ADULT HYPERTENSIVE PATIENTS AT LUMHS E GRADE: EDUCATION GRADE**

Questionnaire	E Grade 1 48%	E Grade 2 32%	E Grade 3 13%	E Grade 4 7%	Average 100%
What is hypertension?	0%	1.25% (4)	33.33% (40)	80% (56)	10%
What is role of salt intake in hypertension?	58.75% (282)	90% (288)	100% (120)	100% (70)	76%
What is the compliance about drugs?	4.28% (12)	30.6% (98)	50.8% (61)	70% (49)	22%
What is advantage of good control?	12.5% (60)	90.6% (290)	66.66% (80)	100% (70)	50%
What are the complications, effect on heart, kidney and brain?	1.04% (5)	1.56% (5)	18% (15)	50% (35)	6%

report that they had received information regarding ideal blood pressure values compared to less educated patients (E grade 3 and less). In our study ten percent patients reported that a physician or other health care provider was a source of information about high blood pressure. Six percent of patients reported that television, newspapers, magazines, and radio were sources for information. In one study almost 30% people got information about blood pressure from near relatives<sup>17</sup>. One of studies showed that only a fraction of individuals 69.1% hospitalized with ischemic heart disease know about blood pressure values<sup>18</sup>. In a study carried out by Safdar s, et al; at Karachi low income settlements, overall prevalence of hypertension was 26%, males (34%) and females 24% and it has been further studied that specially trained general practitioners in management of hypertension, provide better doctor-patient relationship which is more effective in providing good control of blood pressure. Similar efforts are required for the states having increased burden of hypertensive cases<sup>19</sup>. Nudrat N and et al studied that young patients were more aware about hypertension and received treatment whereas those 65 years of age or above had increasing difficulty of controlling blood pressure<sup>20</sup>. Report from Greek, Efstratopoulos shows that hypertension is a common risk factor for cardiovascular disease and awareness, treatment, and control of hypertension are comparable to the best rates<sup>21</sup>. Hypertension and hypercholesterolemia are important modifiable risk factors for ischemic heart disease and frequency of high cholesterol level is about 50% of hypertensive patients in our population<sup>22</sup>. In India 22.1% people are hypertensive, 20% know about the disease and receive the treatment<sup>23</sup>.

It is of vital importance to have a good control of hypertension. In a study on children with hypertension Lande M and et al demonstrated that improvement in parental ratings of executive function occurs after 12 months of anti-hypertensive therapy<sup>24</sup>. Knowledge in our population is insufficient and partly associated with educational level, leaving much room for improvement by educational campaigns. As we know that undiagnosed, untreated, and uncontrolled hypertension clearly places a substantial strain on the health care delivery system and large benefits can be achieved by specially trained medical personals.

## CONCLUSION

Our study concludes that a significant proportion of hypertensive patients have poor knowledge about hypertension.

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