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Research Article

**PREHYPERTENSION, HEART RATE, OBESITY AND THEIR
CO-RELATION; SURVEY ON MEDICAL STUDENTS**¹Dr.Sadaf Gul, ²Dr.daniyal Saqib Alvi 3 Dr.Farkhanda Shiekh¹Fatima Jinnah Medical University; Lahore, ²Bahria University Medical and Dental College,
3 Quaid e Azam Medical College Bahawalpur**Article Received:** April 2019**Accepted:** May 2019**Published:** June 2019**Abstract:**

A standard man may believe that a restorative understudy for the most part thinks about his condition of wellbeing, dependably utilizes sterile sustenance, remains in a decent and clean condition and has a normal that keeps him sound. In actuality, among therapeutic understudies and society as a rule there is a requirement for better wellbeing and a sound way of life. The reason for this examination is to research the commonness of prehypertension, hypertension and weight among restorative understudies and related components. The present examination is a cross-sectional investigation went for 265 therapeutic understudies at the Fatima Jinnah Medical College lahore, who willfully gave their agree to partake. For this gathering of understudies, clinical investigations were performed on temperature, pulse, circulatory strain, respiratory rate, pulse and weight list. The family ancestry of hypertension, diabetes, heftiness and ischemic coronary illness was likewise recognized in the examination. The pre-bundled and pre-approved configuration has been utilized as an approach for this exploration. In light of the above tests and on the assessment of the gathered information, the measurable investigation demonstrated a noteworthy connection between's pre-hypertension, pulse and stoutness. The outcome plainly demonstrates that in the gathering of therapeutic understudies in the present examination a high level of pre-hypertension won.

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INTRODUCTION:

There is an expanding rate of hypertension at a youthful age contrasted with the more established age bunch than previously. Hypertension is a free indicator of cardiovascular ailment and cerebrovascular occasions, which influences about a fourth of the grown-up populace around the world. The Joint National Committee for the Prevention, Recognition, Evaluation and Treatment of Arterial Hypertension (JNC7) 1 characterizes hypertension as blood vessel pressure > 140/90 mmHg. Individuals with a systolic circulatory strain of 120-139 mm Hg or a diastolic pulse of 80-89 mm Hg have a "pre-hypertension". Patients with pre-hypertension have a higher danger of growing hypertension and an expanded danger of major cardiovascular occasions, paying little respect to other cardiovascular hazard factors. Cardiovascular ailments cause in any event 33% of all passings in Pakistan every year. In spite of the fact that hypertension has been very much considered, there is an absence of information on the commonness and hazard factors for hypertension in Pakistan.

With expanding urbanization, way of life issues have expanded. These clutter progressively influence youngsters and teenagers. Audit. Physical latency, the worry of innovation, PCs and the disturbing utilization of lousy nourishment in youth have driven adolescents to experience the ill effects of corpulence and hypertension. Prehypertension generally goes unnoticed. Be that as it may, the requirement for the hour is to recognize these cases ahead of time to avert sequelae. I. H. Hypertension and other cardiovascular complications⁶. The expansion in riches has likewise changed the sustenance model, which is described by a more prominent admission of eating regimens wealthy in fats, sugars and calories⁴. It has additionally been appeared complete mortality is half higher in pre-hypertensive grown-ups than in normotensive grown-ups.

Medication treatment for early hypertension isn't prescribed for an assortment of reasons. 2.3. Our examination populace comprised of understudies who were joined up with a restorative school and who had comparable dietary patterns and a comparable way of life. Early analysis of pre-hypertension in this subgroup assumes a significant job in screening for the metabolic disorder and distinguishes the modifiable components required to propose systems to forestall cardiovascular hazard.

Objective:

Survey on the prevalence of Prehypertension, hypertension and obesity in medical students of our institute and on associated factors.

METHODOLOGY:

A cross-sectional investigation was led and cross-sectional study was done in the 18 to 22 age gathering were taken a crack at the examination. Composed assent was given. Their statistic information has been recorded, including tallness, weight and propensities. The examination found a family ancestry of hypertension, diabetes, corpulence and ischemic coronary illness. The BMI was determined by the worldwide standard equation. A standard mercury sphygmomanometer was utilized to gauge circulatory strain. A sleeve rankle that spreads in any event 80% of the circuit of the arm was connected to the non-overwhelming arm. The vanishing of stage V Korotkoff sounds was taken as a diastolic perusing.

The normal of three estimations recorded at a separation of 2 minutes was taken. On the off chance that these readings contrasted by in excess of 5 mm Hg, three different readings were recorded at 2 minute interims and the normal of every one of the six readings taken. All understudies experienced Pulse, BP, RR, HR and BMI estimations and an exhaustive clinical examination was performed. The outspread heartbeat rate was recorded physically for a time of 1 minute. The subjects were named normotensive, prehypertensive and hypertensive. Hypertensives and surely understood understudies with antihypertensive treatment and understudies in contradiction were barred from the examination. For information investigation, the SPSS - 2 rendition was utilized to ascertain the relationship coefficient of the understudy's T-test.

RESULTS:

Of an objective gathering of 265 understudies there were 106 men and 159 ladies. The commonness of normotonia was 28.8%, the predominance of prehypertension was 61.1%, of which 40.7% were men and 59.3% were ladies. The pervasiveness of hypertension was 10.1%, of which 59.3% were male and 40.7% ladies. The connection among sexual orientation and BP (prehypertensive and hypertensive) is noteworthy (p esteem = 0.039664).

Table 1: Prevalence of Prehypertension and Hypertension in Males and Females

	Males	Females	Total
Normotensive	24	52	76
Prehypertensive	66	96	162
Hypertensive	16	11	27
Total	106	159	265

As indicated by their IMC 171 (64.5%), the understudies had an ordinary weight, 65 were underweight (ie 24.5%), 25 were pre-gauged (ie 9.43%) and 4 were overweight (ie H. 1.5%). Among the pre-Romanian understudies, 76% were men furthermore, 24% ladies, while among overweight understudies, 25% were men and 75% were ladies.

The connection among sexual orientation and weight is significant ($s < 0.0001$). Among pre-hypertensive understudies, 94.44% were hefty, while all (100%) were hypertensive and large. In this way, there is a critical relationship among's weight and pre-hypertension with an estimation of $p = 0.0042$.

Table 2: Gender Wise Weight Distribution

	Males (% of Total Students)	Females (% of Total Students)	Total (% of Total Students)
Underweight	12 (4.5%)	53 (20%)	65 (24.5%)
Normal Weight	74 (27.9%)	97 (36.6%)	171 (64.5%)
Preobese	19 (7.16%)	6 (2.27%)	25 (9.43%)
Obese	1 (0.37%)	3 (1.13%)	4 (1.5%)
Total	106	159	265

Most extreme pre-hypertensive understudies, d. 55.55%, showed at least a bit of kindness rate somewhere in the range of 80 and 90/min and 37.01% of hypertensive understudies showed at least

a bit of kindness rate somewhere in the range of 80 and 90/min. 35.19% of prehypertensives had positive family hypertension and 12.96% of understudies had positive family stoutness.

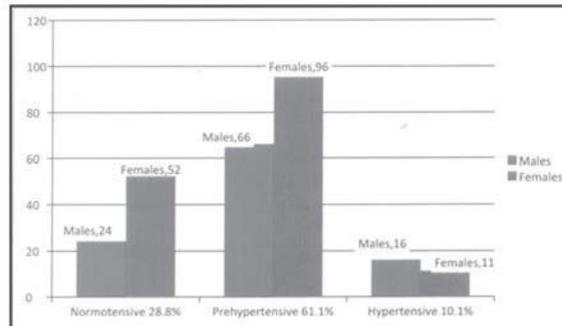
Chart 1: Prevalence Of Prehypertension And Hypertension In Males And Females

Chart 2: Genderwise Weight Distribution

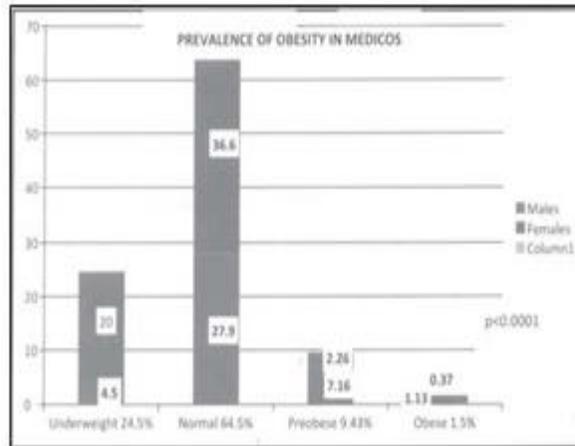


Chart 3: Obesity And Its Correlation With Blood Pressure

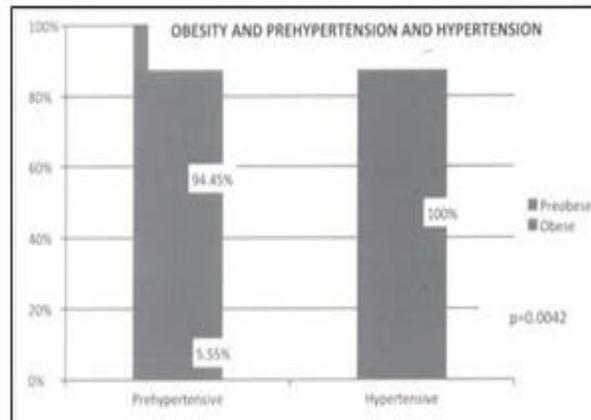
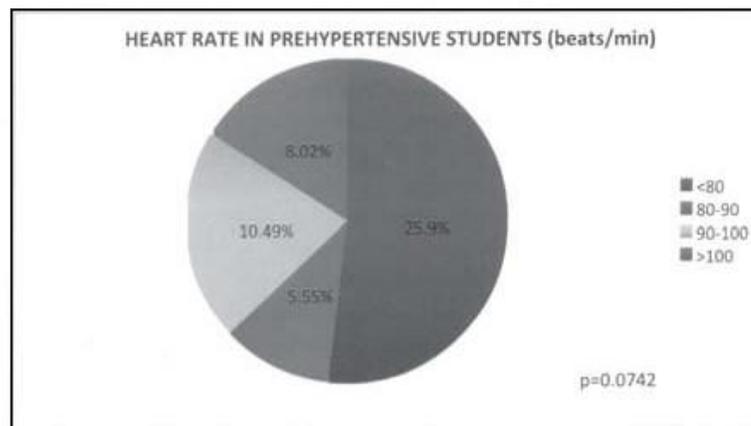


Chart 4: Heart Rate In Prehypertensive Students



DISCUSSION:

Hypertension, a realized hazard factor for cardiovascular accidents⁵, has been very much concentrated everywhere throughout the world. Pre-hypertension is a conceivably modifiable hazard factor for hypertension. As indicated by our examination, practically 61.1% of our understudies fell in the region of pre-hypertension, which is higher than the overall public. During their preparation, therapeutic understudies experience the ill effects of comparable or more elevated amounts of pressure, low physical action, changing dietary patterns and social relaxation propensities, for example, smoking and liquor, which may clarify the expanding predominance of hypertension. Every one of the understudies had a place with the equivalent financial stratum and devoured a similar kind of sustenance. For specialists around the globe, the pervasiveness of the metabolic disorder is higher than anticipated. There is a critical need to evaluate dangers among wellbeing experts. In the present investigation, all hypertensives were viewed as corpulent with a positive connection with hypertension. Of the prehypertensives, 94.4% were large. The impact of sex on the predominance of hypertension was seen in guys who had a higher pervasiveness of systolic and diastolic hypertension at a youthful age⁷. The present study identifies a subgroup, vulnerable but unnoticed, which requires immediate attention and efforts to avoid progression Hypertension and possible cardiovascular diseases. In our study group 35.19% had positive family hypertension. This obviously implies that a strong family history is an independent risk factor and that these students tend to develop hypertension prematurely. Their struggle should therefore be our top priority, to prevent or delay future comorbidities. Furthermore, 12.96% of the students had a positive family history of obesity. This suggests that not only genetic and family factors play a role, but also eating habits. The type of food consumed by the family can also have an impact on the future effects of lifestyle-related diseases. In this way, good dieting propensities

The instructing by guardians from adolescence would be of extraordinary assistance in avoiding and postponing the beginning of these way of life related ailments, and specifically stoutness.

It has been assessed that the bringing down of systolic pulse by 5 mmHg in the populace diminishes the danger of stroke by 14% and the danger of coronary illness by 9% - hypertensive medications to forestall the hypertension scourge and its results, for example, coronary illness and endless kidney ailment. Corpulence and maturing have been appeared to

speak to potential dangers for the future advancement of hypertension. In this manner, the administration of stoutness and way of life changes are potential variables for the counteractive action of hypertension⁹, and we stress the need to authorize this in the beginning periods of therapeutic understudy preparing. Pre-hypertension and hypertension are likewise significant hazard factors for the improvement of insulin resistance^{11,13} and the broad metabolic disorder in India. At present, no medication treatment is prescribed for the treatment of pre-hypertension, aside from those with other co-grimness hazard factors¹⁰. The examination incorporates a homogeneous gathering of individuals with for the most part comparative financial foundations and parameters. The investigation demonstrated realities dependent on a solitary visit, a little example measure, absence of follow-up information. A correlation of changes in esteems with an adjustment in the circumstance (for instance, information that may have been gathered during the examination time frames) was not considered and remains an impediment.

CONCLUSION:

We infer that even among medicinal understudies, future wellbeing laborers, we have a disturbing number of patients with hypertension. Likewise, this subgroup in the network would likewise be phenomenal, which must be distinguished and educated about future entanglements. Hypertension can be adjusted by straightforward way of life changes. Thusly, therapeutic understudies and society when all is said in done likewise need better wellbeing mindfulness and a sound way of life.

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