International Journal of Natural Medicine and Health Sciences ISSN:
Volume 1, No.1, December 2021
Journal homepage: https://journals.iub.edu.pk/index.php/ijnms


## Original Research

# Hypertension Frequency, Risk Factors and Therapeutic Dimensions in Primitive and Urban Areas 

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## Article Info.

Received: 30-10-21
Revised: 15-12-21
Accepted: 29-12-21
Online: 31-12-21

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Keywords: Chest pain; cardiovascular disease; hypertension; hormonal changes

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#### Abstract

More than a quarter of all clinical direness/crises were hypertensive emergencies ( 76 percent urgencies, 24 percent crises). Hypertensive urgencies are frequently associated with migraine ( $22 \%$ ), epistaxis ( $17 \%$ ), faintness, and motor coordination discord ( $10 \%$ ), while hypertensive crises are frequently associated with chest pain (27\%), dyspnea ( $22 \%$ ), and neurological deficit ( $22 \%$ ). ( 21 percent ). This study employed a cross-sectional design to look for differences in hypertension patients and related risk factors among Pakistan's rural and urban populations. Adult respondents experience 12 percent, 30 percent, $10 \%$, and 9 percent of related illnesses, while female patients reported 20 percent, 22 percent, 9 percent, 17 percent, 31 percent, and 13 percent for DM, Cardiovascular Disease, Renal Disease, The certain Previous Surgical intervention, Hormonal changes, and hypertension in pregnancy, respectively. True hypotheses are related to research. All medical professionals, particularly doctors, should inform their patients about these risk factors and assist them in adopting lifestyle adjustments.


## 1. Introduction

Hypertension is defined as a pulse that has risen above 140 mmHg and over 90 times, a systolic
Pressure of much more than, 140 or a diastolic pressure of much more than 90. Constant hypertension is a "silent" illness with no outward signs or symptoms. It can induce alterations in the back of the eye (retina), atypical heart muscle thickening, kidney failure, and cerebrum damage (1).

## Elevated Circulatory Strain's Absolute Weight

Approximately 1 billion people worldwide are suffering from hypertension as of now, with the population expected to rise to 1.56 billion by 2025 , accounting for 29.2 percent of the global population, according to the Global Achievement Link. The overall incidence of hypertension in adults has steadily increased from 594 million in 1975 to 1.13 billion in 2015(2). Thirty percent of adults in developed countries have hypertension, and this percentage is expected to rise to 60 percent in impending time. Overall, 40.8 percent of people have hypertension Bedouin nations; 29.5percent, Africa; 9.3- 70.8percent, Germany; 30.5 percent, and the United States; 30.5 percent in males and 28.5 percent in women (3). The prevalence of hypertension is 41.8 percent, 29.8 percent, 29.6 percent, and 30.8 percent, respectively, in Iran, India, China, as well as South Asian pariahs inside the United Center Eastern people (UAE) (4).Hypertension seems to be more common in low-income nations, where cardiovascular illnesses account for almost 80 percentage points of all deaths ${ }^{4}$. Hypertension can affect the brain, heart and to kidney (5) (Figure 1).

## Establishment

Force of blood strident in contradiction of the channels is circulatory strains that pass on blood from heart towards body(6). Beat routinely increases and succumbs to duration of time. The time period extended from which the disease can progress. High blood
pressure increases the risk of heart failure, stroke and coronary diseases(7). Every so often, hypertension can cause appearances like headaches or heaving (8). In any case, you can track down ways of controlling your heartbeat and lower your risk of coronary sickness and stroke (9). Change in life style can helping is controlling of the disease. Have a go at requiring a lively concise walk multiple times every day 5 days consistently (10). If you smoke, quit at the most punctual chance. These lifestyle changes for beat control resemble those for impeding hypertension (11).
Invigorating rate of improvement, gathering of lifestyles through people in arising countries provoked high-pitched climb in high blood pressure (12) and moves towards mortality. High blood pressure still commonly disregarded by way of overall clinical matter in making nations. High blood pressure remains prosperity worries because is a critical threat influence for different circulatory diseases (13).

## Modifiable Threat Components for hypertension

i.Tobacco Use Tobacco seething is distinguished to build the risk of making hypertension and heart disorders as stroke, blood vessel breakage and coronary episode. Smoking beginnings a fast development in beat achieving higher strolling circulatory strain (14).
ii.Alcohol Usage Alcohol use is fairly relentless in Africa. There is a quick effect between obvious levels and unequivocal instances of alcohol utilization, (for instance, in- your-face drinking) and rising risk of hypertension(15)
iii.Adequate dynamic work has been shown to have various prosperity propelling effects and has a quick, free occupation in diminishing hypertension. By and large, it has been envisioned that an obvious level of genuine work could to some extent explain the low levels of steady ailments in African city (16).

## 1. Methods

## Strategies Proposal and background:

The examination used a cross-section intend towards perceive the disparities in patients of high blood pressure and associated hazard features amongst common and urban people of Rawalpindi. The setting for this assessment was in Spaces of the Rawalpindi. Going before enlistment and data arrangement, ethics support was procured from the ethical board of the Islamia School of Rawalpindi, and Investigation Ethics Committee in the Facility. Investigation Consultant, of The Islamia School similarly provided agrees to organize the assessment.

## Investigating:

People have 1 year or more experience of hypertension from city side and commonplace organizations, have to be enlisted to check out the audit. Neighborhood were free to look into a "Prosperity check" station held in Ten visits through and through were coordinated; two in (make the name out of clinical centers). Casual enlistment frameworks were used, considering their productive use in other enrollment tries. A review based testing was moreover finished.

## Data variety:

To evaluate threat components and normality of high blood pressure in rural people of Rawalpindi, Data can assembled over prosperity post appointments .Taught consent can be get as earlier data arrangement. Individuals were taught in regards to their advantages to pull out from the survey without discipline; mystery; and their induction to examine disclosures upon focus on fulfillment. Data grouping was done through labor force teachers during April 2019.
5 neighboring sites was fixed, clinical benefits specialists were adjacent by, examining and implying individuals start to take limited toward genuine high blood pressure, English, Urdu and local language can be used. A modified type of the standardized World Prosperity Affiliation
(WHO) Stepwise method for managing perception was used for the combination of quantitative data.

## Limits:

The going with data were assembled: BP, BMI, Age, sex, self-itemized prosperity rehearses promotion peril factors included; Smoking, Alcohol Propensity, Dynamic work, Stress History, Working Hours, Raised Cholesterol. Family Parentage, Diet plan (i)without Vegetable (3-4 days as per week) (ii)- Patient encountered with disorder like; diabetes, kidney diseases, CV contaminations, previous operation, gravidity started high blood pressure. Exhausted was considered as pre diagnosed the principles propose two BP assessments confined by something as Second (1)with elevated or decreased blood pressure.

## Data analysis;

Data was analyzed by using SPSS. Discussion and Results 3.1- Patient Survey Results
There have been 1,000 participants whose completed observations, including 56 percent, as a result females and 44percent respectively gents, with 260 boys and men and 350 ladies out from metro region and 180 males and 210 women as from rural location.. The test compiled the percentage of major factors of hypertension in patients.
Nutration: There was a basic differentiation between nation and city. $5 \%$ patients use non vegetative food is more common, however $21 \%$ vegetarian food is use in provincial and patient of urban was about 18. Nevertheless, ingestion of vegetables more days over time stayed related with a reduced likelihood of hypertension in country patients.
Genuine work: Metropolitan Patients putting to some degree more energy in typical sitting or reclining than their commonplace accomplices. Notwithstanding, provincial Patients (28\%) stood out from metropolitan Patients ( $20 \%$ ) point by point achieving out and out more work including overpowering power activity (e.g.,
passing on or lifting significant weights, tunneling or advancement work) for right around 10 minutes relentlessly. Commonplace Patients had an essentially higher/lower mean systolic BP stood out from their metropolitan accomplices in the event that they point by point fiery work.
Smoldering and alcohol usage: Enormous qualification was animation utilized of cigars with usually amounts of $20 \%$ in metropolitan and $09 \%$ in country patients uncovering use of Becky things. Alcohol usage non essentially remarkable amongst commonplace $0 \%$ and $1 \%$ in metropolitan individuals.
Stress and family parentage; the difference among rural and urban country with history of pressure was about $35 \%$ in metropolitan and $22 \%$ where elevated strain history is present. Intimate lineage be situated basically remarkable among common $20 \%$, urbanite $38 \%$ individuals by the dual get-togethers at ordinary itemizing constructive domestic heritage have peril issue for high blood pressure.
Level of Cholesterol: Country diseased person had by and large lower cholesterol level stood out from their metropolitan accomplices whether they reported $10 \%$ and $21 \%$ cases with raised cholesterol exclusively. Fixed lifestyle and usage of terrible sustenance is the justification behind raised cholesterol which subsequently lifts beat.

## Related illness

Among various related sicknesses coronary disease is found in male more as compared to female among hypertensive patients. Announced degree of linked ailments with the percentage of $12,11,10$ and 9 whereas the percentage in female was $20,22,9,17,31,13$ in diabetes patients, Coronary illness, renal Infection, previous Medical procedure, Climacteric , High blood pressure in Gravidity separately.

## Discussion

By and by hypertension impacts just about one billion people global-accomplice whereas it stands guessed that up to 1.56 billion adults in world drive encounter this disorder and this number can even go further high later the JNC 8 report has moreover static the significance of high blood pressure by decreasing the heartbeat level from 140 to $130(\mathrm{mmHg})(17)$. Developing general population and diseases that strength and in Asian countries the diabetes are amid the huge con- attributing factors. The matter is moreover not sufficiently depicted by means of relatively few people based examinations surveyed the inescapability of high blood pressure in all over Pakistan. Amongst 4 regions, Punjab space is more imperative inescapability in country which have direct result of regular nutritional examples, on account of the fixed lifestyle and almost in view of speedy improvement around here from latest a few numerous years. Examination appropriated previous year counting 18 assessments exposed inescapability of high blood pressure [26.3\%] in region of Pakistan, The development in hypertension prevalence may really be credited to money related new development, urbanization, developing, variations in nutritional penchants, sensation of tension. Current survey exhibited the ordinariness of high blood pressure in a general sense higher in individuals more than 40 years, when appeared differently in relation to under years of
40.High blood pressure increase thru addition mature enough is an irrefutable fact, in an audit coordinated midst 1298 themes found basic association of high blood pressure with age (18).
Dependable by revelations trendy concentrate on drove, that revealed profession, connected strain in independent risk element of hypertension. The examination displayed high blood pressure normal in beginner, master classes.

Surrendered personnel have advanced degrees of high blood pressure since mature. Befuddling factors altered in various assessments which disclosed that primary surrendered themes essentially higher possibilities of high blood pressure. Existing survey presented only16\% of focuses remained acknowledged hypertensive in ingesting antihypertensive medications. There to be a result of lowslung tobacco usage in general population, when appeared differently in relation to public typical of 35 percent that's about 48percent in folks, 20percent in ladies whereas 9 prcent in republic and 20percent in municipal.
High blood pressure was basically elevated in individuals that take alcohol other then people who has not interested in alcohol. Alcohol represented as independent risk aspect via various makers as well. Basically,

## References

1. Amara AH, Aljunid SM. Noncommunicable diseases among urban refugees and asylum-seekers in developing countries: a neglected health care need. Globalization and health. 2014;10(1):1-15.
2. Appiah C, Arndt C, Siemsen K, Heitmann A, Staubitz A, Selhuber-Unkel C. Living materials herald a new era in soft robotics. Advanced Materials. 2019;31(36):1807747.
3. Blank C, Gatterer K, Leichtfried V, et al. Short vacation improves stress-level and well-being in German-speaking middle-managers-A randomized controlled trial. International journal of environmental research and public health. 2018;15(1):130.
4. Esselstyn CB. A plant-based diet and coronary artery disease: a mandate for effective therapy. Journal of geriatric cardiology: JGC. 2017;14(5):317.
5. Everett B, Zajacova A. Gender differences in hypertension and hypertension awareness among young adults. Biodemography and social biology. 2015;61(1): 1-17.
6. Heemstra PC, Heemstra E. Coastal fishes of southern Africa. NISC (PTY) LTD; 2004.
7. QASIM QA, HUSSEIN HH, SHARI FH, ALSALMAN H, AHMED GS, JEBER MA. General study: the effect of corpulence and persistent Sicknesses on the seriousness of the diseases with Covid-19. International Journal of Pharmaceutical Research. 2020;12(3)
8. Ravi R, Krishnamurthy V. Beneficial Effects of Medicinal Plants Used For the Management of ObesityA Review. International Journal of Health Sciences and Research. 2019;9(12):174-194.
9. Rehman N, MacLennan H. Danger components of osteoporosis among grown-ups, the instance of Tigrai locale: A case control study.
hypertension remained extra unavoidable in high cholestroled patients. Similar end point exposed through various examinations moreover as of now. The ordinariness of high blood pressure was seen to stay dependably extended per growing BMI by means of various creators. In various examination, elevated outright cholesterol, 40 year of north age, and guidance remained independent risk parts of high blood pressure as uncovered through various makers too.
Completely clinical consideration specialists, especially the specialists, should enlighten the patients nearby peril features and help in clearing a path of changes in life. Schemes are relied upon additionally foster a surveillance structures and performance of community grounded assessing agendas aimed at primary disclosure of high blood pressure.
10. Woo K-T, Choong HL, Wong K-S, Tan HB, Chan C-M. The contribution of chronic kidney disease to the global burden of major noncommunicable diseases. Kidney international. 2012;81(10):1044-1045.
11. Choudhary D, Singh V. Assessment on Various Techniques for Estimating Fetal Size and Growth. International Journal of Research in Medical and Basic Sciences, ISSN. 2017:2455-2569.
12. Cimmaruta D, Lombardi N, Borghi C, Rosano G, Rossi F, Mugelli A. Polypill, hypertension and medication adherence: the solution strategy? International journal of cardiology. 2018;252:181-186.
13. Giri RP, Ajit D, Gangawane K, Giri DSG. Neem the Wonder Herb: A Short Review. International Journal of Trend in Scientific Research and Development (IJTSRD). 2019;3(3):962-966.
14. Mehta A, Kondamudi N, Laukkanen JA, et al. Running away from cardiovascular disease at the right speed: the impact of aerobic physical activity and cardiorespiratory fitness on cardiovascular disease risk and associated subclinical phenotypes. Progress in Cardiovascular Diseases. 2020;
15. Rosenthal T. The effect of migration on hypertension and other cardiovascular risk factors: a review. Journal of the American Society of Hypertension. 2014;8(3):171-191.
16. Shaheen G, Noor R, Zafar F, et al. Hypertension, a review: therapeutic potential of medicinal plants for management of hypertension. plant cell biotechnology and molecular biology. 2021:103-122.
17. Turanovic JJ, Pratt TC. The consequences of maladaptive coping: Integrating general strain and selfcontrol theories to specify a causal pathway between victimization and offending. Journal of Quantitative Criminology. 2013;29(3):321-345.
18. Valtorta NK, Kanaan M, Gilbody S, Ronzi S, Hanratty B. Loneliness and social isolation as risk factors for coronary heart disease and stroke: systematic review and meta-analysis of longitudinal observational studies. Heart. 2016;102(13): 1009-1016.


Figure 1: Occurrence of High blood pressure in entire world

| Sr. No | Factors | Rural |  |  |  | Urban |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Total | \% | Male | Female | Total | \% |
| 1 | Smoking | 70 | 20 | 90 | 9 | 130 | 70 | 200 | 20 |
| 2 | Alcohol Addiction | - | - | - | - | 10 | - | 10 | 1 |
| 3 | Physical Activity | 160 | 120 | 280 | 28 | 80 | 120 | 200 | 20 |
| 4 | Stress History | 90 | 130 | 220 | 22 | 140 | 210 | 350 | 35 |
| 5 | Working Hours (More than 8) | -???? | -??? | ???? | - | 30 | 50 | 80 | 8 |
| 6 | High Cholesterol | 20 | 80 | 100 | 10 | 60 | 150 | 210 | 21 |
| 7 | Family History | 90 | 110 | 200 | 20 | 170 | 210 | 380 | 38 |
| 8 | Diet <br> I. non- <br> Vegetable <br> (3-4 days a | 20 <br> 90 | $\begin{gathered} 30 \\ 120 \end{gathered}$ | $\begin{gathered} 50 \\ 210 \end{gathered}$ | 5 <br> 21 |  |  | $\begin{aligned} & 160 \\ & 180 \end{aligned}$ | $\begin{aligned} & 16 \\ & 18 \end{aligned}$ |
|  |  |  |  |  |  | 80 | 100 |  |  |

Figure 2: Resultant percentage of risk factors for hypertensive patients


Figure 3- Graphical portrayal of related sicknesses patient experienced hypertension


Figure 4- Graphical portrayal of Hazard factors for hypertensive patients.

