# A STUDY OF PREVALENCE OF PREHYPERTENSIVE FEATURES IN HEALTHCARE PROFESSIONAL STUDENTS 

Abhay. A. Pawar ${ }^{1}$, Poonam Patil*2<br>${ }^{1}$ Final year BPTh, Department of Cardiopulmonary, Faculty of Physiotherapy, Krishna Vishwa Vidyapeeth, Karad, Maharashtra, India<br>${ }^{2}$ Assisstant Professor, Department of Cardiopulmonary, Faculty of Physiotherapy, Krishna<br>Vishwa Vidyapeeth, Karad, Maharashtra, India

## ARTICLE INFO

## Article History:

Received $12^{\text {th }}$ February, 2023
Received in revised form $26^{\text {th }}$ February, 2024
Accepted $14^{\text {th }}$ March, 2024
Published online $28^{\text {th }}$ March, 2024

## Key words:

Hypertension, prehypertensive features, healthcare professional, medical students, BMI


#### Abstract

Background: Hypertension is a leading cause of health concern in India. It leads to various conditions like cardiovascular and cerebrovascular diseases. Among Indian undergraduate medical students the prevalence rate of pre hypertension was $37.45 \%$ to $45 \%$. Objectives: To calculate the prevalence rate of pre hypertensive features in healthcare professional students. Methods: 94 subjects aged below 30 years both male and female were selected according to the inclusion and exclusion criteria. The outcome measures were Questionnaire and BMI. According to which the conclusion was made. Result: The study showed $13.8 \%$ were under weight, $54.2 \%$ were normal weight, and $31.9 \%$ were overweight among total 94 subjects. Among 13 under weight subjects, 5 subjects had normal BP and 8 subjects had elevated BP. Among 51 normal weight subjects, 46 subjects had normal BP and 5 subjects had elevated BP. Among 30 over weight subjects, 6 subjects had normal BP and 24 subjects had elevated BP. Conclusion: The study showed the prevalence rate of prehypertensive features in healthcare professional students. This study also shows maximum number of healthcare professional students with prehypertensive features would have hypertension as they grow.


Copyright $®$ The author(s) 2024.This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## INTRODUCTION

Hypertension is a leading cause of health concern in India. It leads to various conditions like cardiovascular and cerebrovascular diseases. ${ }^{1}$ Prevalence rate of hypertension among Indian population under 2011 census population and the WHO reference was $29.7 \%$ to $32.8 \%$. $^{2}$ There are various factors causing hypertension like socio demographic characteristics, nutritional facts, biological factors, lifestyle habits and genetic factors. ${ }^{4}$ The blood pressure above optimal levels but not clinical hypertension is known as pre hypertension. ${ }^{3}$ Among Indian undergraduate medical students the prevalence rate of pre hypertension was $37.45 \%$ to $45 \%$. The relationship between BMI and hypertension varies by age and gender. ${ }^{4}$ Though pre-hypertension has a predisposition, the patho physiological mechanisms that cause its progression have not yet been fully explained. ${ }^{5}$ Most of the studies are done among elderly population and there are previous study data among teenagers and young adults, as they are considered to be at a lower risk of developing the disease. 6

There is a concern that hypertension in young adults may also be on the rise and that cases are not detected because of inadequate screening of pre hypertensive features in this age group. ${ }^{6}$

Earlier studies are carried out among medical students and nursing students, as being healthcare professionals they are well aware of the unhealthy lifestyle and its concerns. Still many of them follow these unhealthy practices. Healthy lifestyles play an important role in maintaining good health. Daily exercise and good dietary patterns are considered as benefits for psychological and physical fitness and good academic performance. ${ }^{7}$ Therefore, assessing the lifestyle of university students is important to develop their quality of life and predict future health issues.

Thus present study is to increase our knowledge on lifestyle among health care professionals and enhance our understanding about healthy or unhealthy behaviour that significantly affect students' present and future health. ${ }^{7}$ So the study was done to assess the prevalence rate of pre hypertensive features in healthcare professional students. ${ }^{8}$

## METHODS

## Methodology

Type of study- Observational study
Study design- Cross sectional study
Place of study- Krishna Vishwa Vidyapeeth, Karad
Sample size- $\mathrm{n}=\mathrm{Z} 2 \mathrm{pq} / \mathrm{L} 2$

[^0]Assisstant Professor, Department of Cardiopulmonary, Faculty of Physiotherapy, Krishna Vishwa Vidyapeeth , Karad, Maharashtra, India.

Sampling method- simple random sampling Duration of study- 6 months

## Materials

Data collection sheet
Sphygmomanometer

## Inclusion criteria

All healthcare professional students
Both genders
All the undergraduate students (UG students)

## Exclusive criteria

Individuals above 30 yrs of age group Individuals already taking hypertensive drugs
Individuals who have recently consumed caffeine, saltsodium, alcohol, cigarettes, tobacco, drugs etc.

## Outcome measures

Data collection sheet
BMI

## Procedure

> This was a study, a study of prevalence of prehypertensive features in healthcare professional students.
> The study was conducted in Krishna Vishwa Vidyapeeth, Karad.
> Members were selected in step with the inclusion and exclusion criteria.
> Then they have been asked to fill the records series sheet for this reason.
$>$ The results of the study become done on the basis of outcome measures.

## RESULT

## Gender Distribution in the Study

| Gender | No of subjects |
| :---: | :---: |
| Male | 52 |
| Female | 42 |

The table shows that 52 males and 42 female subjects participated in the study.

## Body mass index in the study

| BMI | No of subjects |
| :--- | :---: |
| Underweight | 13 |
| Normal weight | 51 |
| Overweight | 50 |

The table shows that 13 underweight, 51 normal weight and 50 overweight subjects participated in the study.

## Body mass index \& blood pressure

| BMI / BP | Normal BP | Elevated BP |
| :---: | :---: | :---: |
| Under weight | 5 | 8 |
| Normal weight | 46 | 5 |
| Over weight | 6 | 24 |

The table shows that 5 normal BP, 8 elevated BP among underweight subjects, 46 normal BP, 5 elevated BP among
normal weight subjects, 6 normal BP, 24 elevated BP among overweight subjects participated in the study.

## DISCUSSION

This study 'A Study of Prevalence of Prehypertensive Features In Healthcare Professional Students' was done to find out the prevalence rate of prehypertensive features in healthcare professional students.

Healthcare group is a agency that provides fitness care and related offerings, including but not limited to be provision of inpatient and outpatient care, diagnostic and therapeutic offerings, laboratory services, medicinal capsules, nursing care, assisted residing, aged care and housing inclusive of retirement groups and device used or useful for the availability of healthcare and associated offerings.

They offer services for twenty-four hours in line with day and 7 days in line with week. So this paintings sample has a direct or indirect effect on their fitness. Even in healthcare establishments, competition has accelerated nowadays to keep their popularity and fulfil their day by day desires. As healthcare professional students need to study as well as excel their skills in academic years by preparing for exams by reading endless syllabus, attend long duration lectures, posting and practical classes. They face lot of stress and face difficulty in studies. Many of them start to gain weight or loses weight. Eating pattern has changed and have irregular diet and daily routine, also don't have fixed sleeping time.

As the world is changing at an extraordinary pace. And in today's competitive landscape, there are survival skills that young people need to master so that a measure of success can be assured. To master these skills people are living a stressful life. Most common health issue these healthcare professional students face as they grow is hypertension. So this study needs to be done to find out the prevalence rate of pre hypertensive features among healthcare professional students. The targets of this observe had been to find the superiority price of prehypertensive functions among healthcare professional students.

The have a look at was performed with 94 subjects Krishna Vishwa Vidyapeeth, Karad. Subjects were decided on in keeping with the inclusion and exclusion standards and written consent changed into taken. Both the women and men' subjects have been equally included for study. Subjects have been defined approximately the method of the study. Then they have been requested to fill the questionnaire as a result. Survey changed into finished in step with the consequences received and for this reason end turned into given.

## CONCLUSION

The study showed the prevalence rate of prehypertensive features among healthcare professional students. This study also shows the maximum number of healthcare professional
students with prehypertensive features would have hypertension as they grow.

## ACKNOWLEDGEMENT

Acknowledge the guidance and support from the faculty of physiotherapy.

## AUTHORS CONTRIBUTION

Abhay. A. Pawar conducted the study by working on protocol preparation, collecting samples, literature review for this manuscript, developed the introduction section of the manuscript, together with the discussion of the study findings, collected data and analysed the data. Dr Poonam Patil guided in providing a description of the background information and participated in preparation of the manuscript.

## CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest concerning the content of the present study.

## FUNDING SOURCE

This study was a self-funded study.

## References

1. Ranjan, A., \& Shinde, P. (2021). Prevalence of prehypertension amongst the medical students in Telangana. European Journal of Molecular and Clinical Medicine, 8(4), 1772-1777.
2. Ramakrishnan, S., Zachariah, G., Gupta, K., Rao, J. S., Mohanan, P. P., Venugopal, K., Mani, K. (2019). Prevalence of hypertension among Indian adults: Results from the Great India Blood Pressure Survey. Indian Heart Journal, 71(4), 309-313.
3. Lindor, A., \& Pettersson, E. (2018). The prevalence of hypertension in young medical students in Vietnam.
4. Al-Shloul, M. (2022). Prevalence and determinants of pre-hypertension among undergraduate nursing students of private health Sciences College. Journal of Hunan University Natural Sciences, 49(2).
5. Debbarma, A., Bhattacharjya, H., Mohanty, A., \& Mog, C. (2015). Prevalence of pre-hypertension and its relationship with body mass index among the medical students of Agartala Government Medical College. International Journal of Research in Medical Sciences, 3(5), 1097-1101.
6. Chattopadhyay, A., Taraphdar, P., Kumar Sahu, B., Maulik, S., Ghosh, R., Sinha, A., \& Biswas, M. (2014). A study on prevalence of hypertension and its related risk factors among undergraduate medical students in Kolkata. IOSR Journal of Dental and Medical Sciences, 13(11), 1-7.
7. Sharma, S. K., Mudgal, S. K., Thakur, K., Gaur, R., \& Aggarwal, P. (2020). Lifestyle behavior of budding health care professionals: A cross-sectional descriptive study. Journal of Family Medicine and Primary Care, 9(7), 3525.
8. Chitrapu, R. V., \& Thakkallapalli, Z. M. (2015). Prehypertension among medical students and its association with cardiovascular risk factors. Journal of Dr. NTR University of Health Sciences, 4(1), 8.

## How to cite this article:

Abhay. A. Pawar, Poonam Patil. (2024). A study of prevalence of prehypertensive features in healthcare professional students . International Journal of Current Advanced Research.13(03), pp.2901-2903.


[^0]:    *Corresponding author: Poonam Patil

