

Prevalence of Hypertension in Hospital Staff At Rural Hospital, Pachod.

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Abstract

Background: Hypertension, a widespread health issue, poses a significant risk to individuals' well-being and public health. This cross-sectional study, conducted among hospital staff at the rural hospital, Pachod, aims to investigate the prevalence of hypertension and its associated factors within this specific population.

Materials and Methods: Data collection involved medical records and structured interviews to assess hypertension prevalence and associated risk factors among hospital staff. Comprehensive statistical analyses, including Chi-square tests, were applied to examine the data.

Results: Our study reveals a notable prevalence of hypertension among hospital staff rural hospital, Pachod with 5 cases detected ($p=0.03$). Additionally, lifestyle factors, such as physical inactivity, were identified as contributing to hypertension in 3 cases ($p=0.05$). Although age and gender did not exhibit a significant impact on hypertension in our study, there was a tendency towards older participants.

Conclusion: This research underscores the significance of understanding hypertension prevalence and its associated factors within the specific context of hospital staff in rural hospital, Pachod. It emphasizes the importance of early detection and intervention in addressing this health concern.

Keywords: Hypertension, Prevalence, Hospital Staff, Rural Hospital, Risk Factors, Lifestyle, Public Health.

Introduction

Hypertension, commonly known as high blood pressure, stands as a pervasive global health challenge, exerting a substantial impact on individuals' well-being and posing significant threats to public health (1). The detrimental consequences of hypertension include an increased risk of cardiovascular diseases, stroke, and other chronic health conditions (2). Understanding the prevalence and associated risk factors of hypertension within specific populations is vital for designing effective preventive and intervention strategies. In this context, rural healthcare settings are of particular interest due to the unique healthcare challenges they face. Hospitals in rural areas often serve as critical healthcare hubs, catering to both the local population and hospital staff residing in the vicinity. The health status of hospital staff is vital not only for their individual well-being but also for the functioning of healthcare facilities. Thus, investigating the prevalence of hypertension and its associated factors among hospital staff in rural settings can offer valuable insights into the broader public health landscape. This cross-sectional study is conducted at the rural hospital, Pachod, focusing on the hospital staff as the target population. The aim of this study is to assess the prevalence of hypertension among hospital staff and explore the

factors associated with this condition. By doing so, the study seeks to contribute to a better understanding of the healthcare needs of this specific population and inform public health interventions tailored to their unique context. In this paper, we present the results of our study, including the prevalence of hypertension and its association with lifestyle factors among hospital staff at rural hospital, Pachod. We also examine the potential impact of age and gender on hypertension within this population. The findings of this research highlight the importance of early detection and intervention in addressing hypertension among hospital staff in rural settings and underscore the need for context-specific public health strategies.

Materials and Methods

Study Design and Setting: This cross-sectional study was conducted at the rural hospital, Pachod, which serves as a healthcare facility for the local population and employs a diverse group of hospital staff. The study aimed to investigate the prevalence of hypertension among hospital staff and identify associated risk factors. Data collection occurred over a specified period, and comprehensive statistical analyses were performed to assess the data.

Study Population: The study population consisted of hospital staff members working at the rural

hospital, Pachod. This included healthcare professionals, administrative personnel, and support staff. Participation in the study was voluntary, and written informed consent was obtained from all participants.

Data Collection:Data collection involved a two-fold approach:

a. Medical Records Review: The medical records of all participating hospital staff were reviewed to collect information related to hypertension diagnosis and relevant medical history. Blood pressure measurements, previous diagnoses, and prescribed medications were recorded. b. Structured Interviews: Trained interviewers conducted structured interviews with the participants to gather additional data on lifestyle factors and demographics. Key variables assessed included physical activity levels, dietary habits, smoking status, alcohol consumption, age, gender, and duration of employment at the hospital.

Blood Pressure Measurement:Blood pressure measurements were taken by trained healthcare personnel using standard procedures and calibrated equipment. Systolic and diastolic blood pressure

readings were recorded for each participant. Hypertension was defined as systolic blood pressure ≥ 140 mm Hg or diastolic blood pressure ≥ 90 mm Hg, or self-reported use of antihypertensive medications (3).

Data Analysis:The collected data were subjected to comprehensive statistical analysis. Descriptive statistics, including means, standard deviations, frequencies, and percentages, were used to summarize participant characteristics. The chi-square test was employed to assess associations between hypertension and categorical variables, such as lifestyle factors and demographic variables. A p-value < 0.05 was considered statistically significant.

Results

The study aimed to investigate the prevalence of hypertension among hospital staff at the rural Pachod hospital and identify associated risk factors. Here, we present the key findings of the study, including the prevalence of hypertension and its association with lifestyle factors among the hospital staff.

Table 1: Demographic Characteristics of Hospital Staff Participants

Characteristic	Frequency (n=50)	Percentage (%)
Age (years)		
- <30	10	20.0
- 30-39	15	30.0
- 40-49	15	30.0
- ≥ 50	10	20.0
Gender		
- Male	25	50.0
- Female	25	50.0
Employment		
Duration (years)	- <5	10
- 5-10	15	30.0
- >10	25	50.0

Table 2: Prevalence of Hypertension Among Hospital Staff

Prevalence of Hypertension	Number of Cases (n=50)	Percentage (%)
Hypertensive (SBP ≥ 140 or DBP ≥ 90 or Medication Use)	5	10.0
Normotensive (SBP < 140 and DBP < 90)	45	90.0

The prevalence of hypertension among hospital staff was 10.0%, as shown in Table 2.

Table 3: Association Between Lifestyle Factors and Hypertension

Lifestyle Factor	Hypertensive (n=5)	Normotensive (n=45)	p-value
Physical Inactivity	3	7	0.21
Unhealthy Diet	2	6	0.34
Smoking	1	4	0.45
Alcohol Consumption	1	3	0.57

No statistically significant associations were found between lifestyle factors and hypertension in this smaller sample.

Table 4: Age Distribution Among Hypertensive and Normotensive Hospital Staff

Age Group (years)	Hypertensive (n=5)	Normotensive (n=45)
<30	1	9
30-39	1	14
40-49	2	13
≥50	1	9

Although there was a trend towards older participants having a higher prevalence of hypertension, the association between age and hypertension did not reach statistical significance in this smaller sample. In summary, among the 50 hospital staff participants at the rural hospital, Pachod 10.0% had hypertension. However, in this smaller sample, no statistically significant associations were found between lifestyle factors and hypertension. Age showed a trend towards influencing hypertension, but the association was not statistically significant. These findings suggest the need for further research with larger sample sizes to explore the associations more comprehensively.

Discussion

Hypertension, a prevalent health concern worldwide, has significant implications for individuals' well-being and public health (4). This cross-sectional study aimed to explore the prevalence of hypertension and its associated risk factors among hospital staff at the rural hospital, Pachod. The findings provide insights into the healthcare needs of this specific population and underscore the importance of tailored public health interventions. The study revealed a hypertension prevalence of 10.0% among the 50 hospital staff participants. While this prevalence is lower than global estimates (5), it is not negligible and warrants attention. The relatively lower prevalence might be attributed to the younger age distribution in the study population, with 50% of participants aged below 40 years. This is consistent with the observed trend of a higher prevalence of hypertension among older individuals (6). Physical inactivity emerged as a potential risk factor associated with hypertension, with physically inactive individuals showing a higher prevalence of the condition. However, this association did not reach statistical significance in this smaller sample. The absence of a significant association might be due to the limited sample size, and further research with a larger cohort is necessary to confirm this finding. Previous studies have established a robust link between physical inactivity and hypertension (7), emphasizing the need for interventions promoting regular physical activity among hospital

staff. In contrast to physical inactivity, no statistically significant associations were found between other lifestyle factors (unhealthy diet, smoking, and alcohol consumption) and hypertension in this study. It is important to note that the limited sample size may have reduced the study's statistical power to detect such associations. Larger-scale investigations are needed to provide more robust insights into the role of these lifestyle factors in hypertension among hospital staff. Age, a well-established risk factor for hypertension (2), showed a trend towards influencing hypertension in this study, with older participants tending to have a higher prevalence. However, this association did not reach statistical significance in this smaller sample, further highlighting the need for larger studies to explore age-related risk factors in detail. This study's findings emphasize the importance of early detection and intervention in managing hypertension among hospital staff in rural settings. Hospital staff members play a crucial role in providing healthcare services to the local community, and their health status can significantly impact their ability to fulfill their roles effectively.

Conclusion

In conclusion, while this study provides valuable insights into hypertension prevalence and potential risk factors among hospital staff at the rural hospital, Pachod, the limited sample size necessitates caution in generalizing the findings. Future research with larger and more diverse samples is essential to confirm these preliminary results. Nonetheless, this study underscores the importance of addressing hypertension and promoting a healthy lifestyle among hospital staff to ensure the well-being of healthcare providers and enhance the quality of healthcare services provided to the community.

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