



Original Article

**INCIDENCE OF HYPERTENSION AMONG
MEDICAL AND DENTAL STUDENTS**

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ABSTRACT:

Hypertension, also known as high blood pressure (HBP), is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. High blood pressure typically does not cause symptoms. This cross-sectional study was conducted among the medical and dental students of different colleges. A total of 340 medical and dental students, both male and female were included. The mean age of the students was 22.23 ± 2.23 years. The mean age of male students was 23.23 ± 1.23 years. The mean systolic and diastolic blood pressure among the medical students was 118.01 ± 2.32 mmHg

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and 79.21 ± 3.21 mmHg. The mean systolic and diastolic blood pressure among the medical students was 117.42 ± 1.23 mmHg and 78.32 ± 2.19 mmHg.

Keywords: Hypertension, medical, dental students.

INTRODUCTION:

Hypertension, also known as high blood pressure (HBP), is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. High blood pressure typically does not cause symptoms. Long-term high blood pressure, however, is a major risk factor for coronary artery disease, stroke, heart failure, atrial fibrillation, peripheral arterial disease, vision loss, chronic kidney disease, and dementia (1).

High blood pressure is classified as primary (essential) hypertension or secondary hypertension. About 90–95% of cases are primary, defined as high blood pressure due to nonspecific lifestyle and genetic factors. Lifestyle factors that increase the risk include excess salt in the diet, excess body weight, smoking, and alcohol use. The remaining 5–10% of cases are categorized as secondary high blood pressure, defined as high blood pressure due to an identifiable cause, such as chronic kidney disease, narrowing of the kidney arteries, an endocrine disorder, or the use of birth control pills(2).

Blood pressure is expressed by two measurements, the systolic and diastolic pressures, which are the



maximum and minimum pressures, respectively. For most adults, normal blood pressure at rest is within the range of 100–130 millimeters mercury (mmHg) systolic and 60–80 mmHg diastolic. For most adults, high blood pressure is present if the resting blood pressure is persistently at or above 130/80 or 140/90 mmHg. Different numbers apply to children. Ambulatory blood pressure monitoring over a 24-hour period appears more accurate than office-based blood pressure measurement (3). The purpose of this study is to see the prevalence of hypertension among the medical and dental students in different colleges.

MATERIAL AND METHODS:

This cross-sectional study was conducted among the medical and dental students of different colleges. A total of 340 medical and dental students, both male and female were included. All the students were given a predefined proforma and responses were collected. The data was collected and analyzed using SPSS Ver. 25.0. The qualitative data was presented as frequency and percentages. The quantitative data was presented as mean and standard deviation.

RESULTS:

The mean age of the students was 22.23 ± 2.23 years. The mean age of male students was 23.23 ± 1.23 years and the mean age of female students was 21.45 ± 1.32 years.



There were 220 (64.70%) medical students and 120 (35.30%) dental students. The mean systolic and diastolic blood pressure among the medical students was 118.01 ± 2.32 mmHg and 79.21 ± 3.21 mmHg. The mean systolic and diastolic blood pressure among the dental students was 117.42 ± 1.23 mmHg and 78.32 ± 2.19 mmHg. Among the medical and dental students 20 including male and female students had systolic and diastolic blood pressure below 110/70 mmHg, 19 students had blood pressure above 120/80 mmHg and rest of the students 301 had blood pressure in normal range.

DISCUSSION:

The prevalence of hypertension varies across the WHO regions and country income groups. The WHO African Region has the highest prevalence of hypertension (27%) while the WHO Region of the Americas has the lowest prevalence of hypertension (18%). A review of current trends shows that the number of adults with hypertension increased from 594 million in 1975 to 1.13 billion in 2015, with the increase seen largely in low- and middle-income countries. This increase is due mainly to a rise in hypertension risk factors in those populations. The risk factors for hypertension include modifiable risk factors include unhealthy diets (excessive salt consumption, a diet high in saturated fat and trans fats, low intake of fruits and vegetables),



physical inactivity, consumption of tobacco and alcohol, and being overweight or obese. Non-modifiable risk factors include a family history of hypertension, age over 65 years and co-existing diseases such as diabetes or kidney disease. There are two types of high blood pressure. Primary (essential) hypertension is for most adults when there's no identifiable cause of high blood pressure. This type of high blood pressure, called primary (essential) hypertension, tends to develop gradually over many years. Secondary hypertension is when people have high blood pressure caused by an underlying condition. This type of high blood pressure, called secondary hypertension, tends to appear suddenly and cause higher blood pressure than does primary hypertension. This study concludes that only few medical and dental students had blood pressure more than 120/80mmHg and most of the students have blood pressure in normal range (4,5,6).

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