Introduction

Noncommunicable diseases (NCDs) are a major cause of morbidity and mortality globally. These diseases account for two-thirds of all deaths worldwide; in opposition to the common misconception, the burden of these diseases is worst in low- and middle-income countries where 80% of all NCDs occur.[1] Hypertension is one of the main public health challenges because of its high frequency and associated risks of cardiovascular and kidney diseases such as myocardial infarctions, strokes, and renal failures.

Hypertension is the biggest risk factor for death, responsible for 9.4 million deaths and 7% of disability worldwide. This makes it the single most important cause of morbidity and mortality worldwide. Hypertension is not only an important public health problem; rather, it will also have a big economic impact as a significant proportion of the productive population becomes chronically ill and stays at home, leaves their job, or dies, leaving their families in poverty. It is called the “silent killer” because it often has no warning signs or symptoms, and many people do not realize they have it.

Various factors contribute to the occurrence of hypertension including excessive intake of saturated fatty acids and higher consumption of salts, which are risk factors for cardiovascular diseases. Unhealthy diet and physical inactivity contribute to around 30% of preventable morbidity and mortality from NCDs, including due to hypertension.

The dietary approach is to promote food items containing fruits, vegetables, low-fat dairy products, and whole grains while limiting the amount of meat, sweets, and sugar and reducing sodium intake to reduce the mean population blood pressure (BP)

Sedentary life style is also a cause of overweightness that produces higher body mass indexes (BMIs) and waist-to-hip ratios. In turn, these factors are associated with hypertension and other cardiovascular diseases.

In developing countries like India where urbanization is expanding, lifestyles are changing, literacy rate was low earlier but now growing, and people are still living in poverty, hypertension and its impact on development and health is particularly critical. However, little work has been done on NCDs. Therefore, there is a need to fill the gap regarding the magnitude (prevalence) of high BP and to identify factors associated with high BP in our country, which prompted the conduct of this study. Once the prevalence of hypertension and its associated risk factors have been identified in the target area, the findings will contribute to regional health offices and concerned bodies designing intervention strategies and prevention measures. Moreover, research organizations and those who are interested in the field of cardiovascular diseases would benefit from this information.

Source population

All adult aged 30 years or more living in the area during the study period were eligible for the study.

Exclusion criteria

Pregnant women were excluded from the study to avoid confounding.

Data collection procedures and data collection tools

The data was collected using a structured interview questionnaire and physical measurements. The questionnaire was adapted from "WHO STEP wise approach to chronic disease risk factor surveillance (STEPS)"

A digital measuring instrument was used to measure the weight of adult individuals who were included in the study. Weight measuring scales were checked and adjusted at zero level between each measurement. Height was measured with stadiometers following the standard steps. Waist circumference was measured just at the midpoint between the anterior superior iliac spine and the lowest rib using tape meters, marking the area with a single thin piece of cloth.

BP was measured twice in a sitting position (using a standard sphygmomanometer BP cuff with an appropriate size to cover two-thirds of the upper arm) after the participant rested for at least 5 minutes, with no smoking or caffeine allowed for 30 minutes before measurement. The second measurement was taken 5–10 minutes after the first measurement.

Seven clinical nurses acted as data collectors, and two supervisors were recruited for the field work.

Data quality management

The questionnaire was initially prepared in English, was translated into the local language (Amharic) in order to obtain the required information from the respondents, and was translated back to English to check for any inconsistencies in meaning of words by language experts.

A pretest was done among 5% of the sample population among individuals, that were not included in the main survey. Data collectors and supervisors were trained for period of 2 days on procedures of measuring BP, heart rate, weight, height, and waist and hip circumferences of the participants, and were also made familiar with the questionnaires.

Background: Hypertension is one of the most common causes of premature death and morbidity and has a major impact on health care costs. It is an important public health challenge to both developed and developing countries. The aim of this study was to determine the magnitude and correlates of hypertension.

Methods: A community-based cross-sectional study was conducted in 01-04-2020 among 250 adult visiting outdoors of I.R.H.A.H for treatment, using multistage sampling techniques. An interview-administrated questionnaire and physical measurements such as blood pressure (BP), weight, height,

and waist and hip circumferences were employed to collect the data. The data were coded, entered, and analyzed.

Results: A total of 250 responses were included in the analysis resulting in a response rate of 99.6%. The findings declared that 17.6%, 19.8%, and 2.2% of respondents were pre-hypertension, hypertension stage I, and hypertension stage II, respectively, on screening test. The overall prevalence of hypertension (systolic BP ≥140 mmHg, or diastolic BP ≥90 mmHg, or known hypertensive patient taking medications) was 25.1%. According to the multivariate logistic regression analysis, age; having ever smoked cigarette; number of hours spent walking/cycling per day; number of hours spent watching TV per day; history of diabetes; adding salt to food in addition to the normal amount that is added to the food during cooking; and body mass index were statistically significant predictors of hypertension.

Conclusion: One out of every four respondents of the study had hypertension, and more than one out of three cases of hypertension (38.8%) did not know that they had the hypertension; 17.6% of the respondents were in pre-hypertension stage, which adds to overall future risk of hypertension. Therefore, mass screening for hypertension, health education to prevent substance use, regular exercise, reducing salt consumption, and life style modifications are recommended.

Keywords: blood pressure, body mass index, non-communicable disease, salt consumption