

Awareness of Hypertension and Its Risks Among Youths in West Kabul: A Cross-Sectional Study

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ABSTRACT

Background: Hypertension is a leading global health risk, often silent yet significantly contributing to heart disease, stroke, and kidney failure. Its prevention relies heavily on public awareness, particularly among youths. This study examines youth awareness of hypertension, its risk factors, and complications in West Kabul, amid rising incidence due to lifestyle and urbanization.

Methods: A cross-sectional survey was conducted among 400 youths (aged 17–21) in West Kabul using convenience sampling. Participants were recruited from schools, community centers, and public spaces. Data were gathered through a pretested, structured questionnaire assessing demographics, hypertension knowledge, and awareness of risk factors. The questionnaire was validated by public health experts, and responses were analyzed using SPSS with results presented descriptively.

Results: Among male respondents (n=200), 82.5% knew about hypertension, but just 32% knew of its important risk factors. Similarly, among female respondents (n=200), 64% knew about hypertension, but just 38.5% knew of its causes accurately. A majority of respondents (male and female) held mistaken perceptions about the dietary and lifestyle risk determinants for hypertension. Moreover, only 26% of men and 31% of women indicated a good understanding of the hypertension consequences.

Conclusion: While most youths in West Kabul know about hypertension, its risk factors and causes are understood by few. Less than 32% of men and 38.5% of women know the major risk factors for hypertension and therefore we require targeted health education. Our recommendation is to include awareness about hypertension in school curricula and start culturally sensitive outreach so that preventive lifestyle changes can be promoted among youths.

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1. Introduction

High blood pressure, commonly referred to as hypertension, is a universal health condition and a major cause of cardiovascular disease, stroke, and renal failure. The development of hypertension in the young generation has raised alarm about the onset of cardiovascular complications in early age groups. Awareness of hypertension and its causal factors plays a key role (1) in its control and prevention.

In Afghanistan, there have not been many studies to assess the awareness of young people regarding hypertension. Because of the increasing burden of non-communicable diseases in Afghanistan, public awareness is highly critical in prevention strategy formulation. The aim of this study is to assess the awareness level among young people in West Kabul regarding hypertension and its risks.

Hypertension has even been referred to as the "silent killer" because it does not necessarily display apparent symptoms until it has done a lot of harm to a person's health. This places a strong focus on awareness and prevention early in life. Most individuals are left undiagnosed until symptoms (2) such as heart disease, stroke, or failure of the kidney begin to surface.

Studies from various nations have shown that young people are less educated about hypertension than other age groups, which positions them at higher risk for subsequent complications in adult life (3).

Global public health interventions emphasize lifestyle change as the main element in hypertension prevention (4). Poor diet, physical inactivity, excessive salt intake, smoking, and stress are determinants that contribute to elevated blood pressure. In developing countries such as Afghanistan, where accessibility to healthcare is low and awareness programs are limited, young individuals may be uninformed about what preventive strategies must be adopted.

This study is particularly timely because it indicates the degree of awareness among young people in West Kabul, an area with limited healthcare facilities and educational activities. The gaps in knowledge can be used to guide policymakers and healthcare professionals to create effective interventions to improve public health outcomes. By the determination of specific misconceptions and gaps in knowledge, this study can assist in creating customized learning programs sensitive to the needs of most young people in the region.

In addition, socio-cultural and economic determinants affect awareness of health in Afghanistan. The use of traditional treatment is the first point of care for the majority of individuals, rather than medical consultation, leading to underdiagnosis and inappropriate management of hypertension even further. Worse still, poor literacy and availability of appropriate health information. The current study is an effort to bridge that gap by providing evidence-based information on the knowledge of young adults regarding hypertension and putting forward measures to enhance their awareness.

2. Methodology

2.1 Study Design and Population

This study employed a cross-sectional survey design to assess awareness of hypertension among youths in West Kabul. The target population included young individuals aged 17–21 years residing in the region. Participants were selected using

a convenience sampling method, based on accessibility at schools, community centers, and public areas.

2.2 Data Collection

Data were collected through a structured and pretested questionnaire designed to assess participants' knowledge and awareness related to hypertension. The questionnaire included the following components:

- Demographic characteristics: age, gender, education level, and parental education level
- Knowledge about hypertension: definition, symptoms, and causes
- Awareness of risk factors: including diet, lifestyle, and genetics
- Understanding of complications: such as stroke, heart disease, and kidney failure

A total of 400 participants (200 males and 200 females) voluntarily took part in the survey. The questionnaire was administered in person by trained surveyors, who explained the purpose of the study and ensured participant understanding.

2.3 Inclusion and Exclusion Criteria

Inclusion criteria included youths aged 17–21 years who were permanent residents of West Kabul and consented to participate. Exclusion criteria included individuals outside the age range, those with known cognitive impairments, or those unwilling to provide consent.

2.4 Ethical Considerations

Informed consent was obtained from all participants prior to data collection. For participants aged under 18 verbal consent was also obtained from their parents or legal guardians. The study was conducted in accordance with ethical research standards, and verbal approval was granted by local education and community authorities.

2.5 Data Analysis

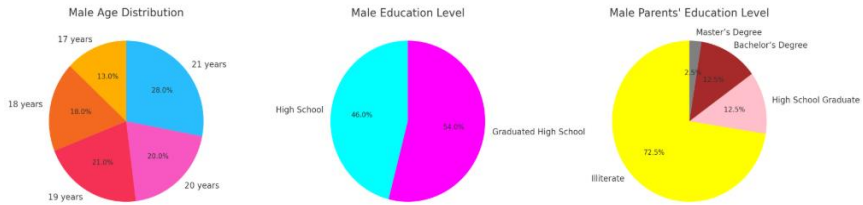
Data were analyzed using SPSS version 25 (IBM Corp., Armonk, NY, USA). Descriptive statistics, including frequencies and percentages, were calculated for categorical variables. The results were presented in tables and visualized using bar charts and pie charts for clearer interpretation.

3. Results

3.1 Demographic Characteristics

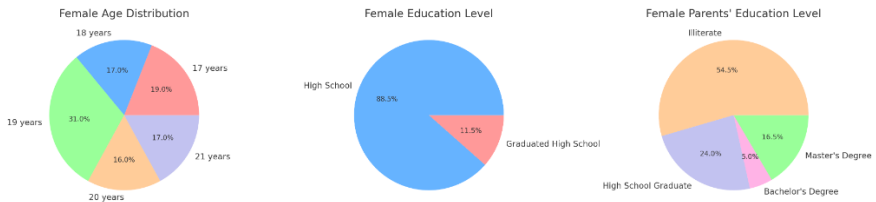
Among the male respondents (n=200):

- Age distribution: 17 years (13%), 18 years (18%), 19 years (21%), 20 years (20%), 21 years (28%)
- Education level: High school (46%), Graduated high school (54%)
- Parental education level: Illiterate (72.5%), High school graduate (12.5%), Bachelor's degree (12.5%), Master's degree (2.5%)



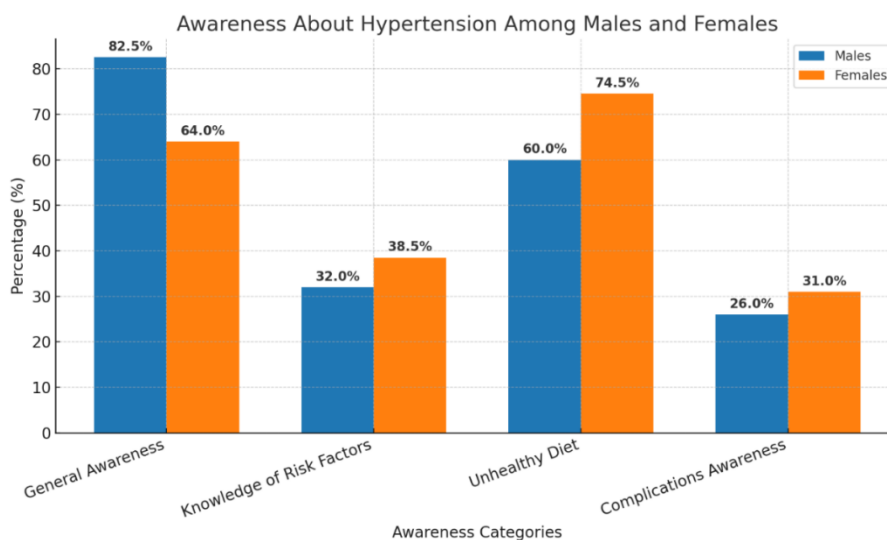
Among the female respondents (n=200):

- Age distribution: 17 years (19%), 18 years (17%), 19 years (31%), 20 years (16%), 21 years (17%)
- Education level: High school (88.5%), Graduated high school (11.5%)
- Parental education level: Illiterate (54.5%), High school graduate (24%), Bachelor's degree (5%), Master's degree (16.5%)



3.2 Awareness About Hypertension

- General awareness: 82.5% of males and 64% of females had heard of hypertension.
- Knowledge of risk factors: Only 32% of males and 38.5% of females could correctly identify risk factors.
- Dietary habits: 60% of males and 74.5% of females reported following an unhealthy diet.
- Complications awareness: 26% of males and 31% of females demonstrated high awareness of hypertension complications.



4. Discussion

Our findings show that despite the general knowledge of hypertension, there is no specific knowledge among young people in West Kabul concerning its causes, risk factors, and consequences. Most of the participants had wrong beliefs about diet and blood pressure. These results are consistent with international evidence (5) which shows that the younger age groups have lower levels of knowledge about hypertension compared to older age groups. Such a paucity of data could be the result of rare public health initiatives and limited exposure to medical education in Afghanistan. Apart from the data deficit, cultural and social beliefs greatly contribute to impacting health behavior. Most young people would never regard hypertension as a dangerous disease because it is regarded as old people's illness in customary wisdom. This makes most young people become complacent towards preventive measures, as they are more likely to underestimate the relevance of hypertension in their own lives. Moreover, irregular doctor visits and the lack of preventive medical centers (6) in Afghanistan make most young people not get access to appropriate health education on hypertension, thereby further widening the knowledge gap. Knowledge gap the false belief about lifestyle factors such as diet and physical exercise equally calls for an imperative of enhanced communication. The majority of youths in West Kabul may not understand the link between hypertension and unhealthy diet, stress, or physical inactivity. It is possibly because communities have poor knowledge (7) of preventive medicine where cultural therapies and beliefs are more prioritized than scientifically proven medical care. To help bridge these gaps, health education must be tailored to the specific cultural and socio-economic context of West Kabul. Hypertension awareness should become part of the school curriculum, and healthcare professionals should take a more active role in educating youths about the risks of high blood pressure. Media campaigns and community-based outreach programs must be crafted to challenge misbeliefs and provide accurate, comprehensible information on hypertension. Further, health promotion interventions need to include practical advice

on adopting healthier diets and regular exercise as part of daily life, emphasizing long-term prevention over short-term cure. Secondly, the results emphasize the importance of starting preventive education (8) early in life. This is not just an issue in Afghanistan. A study by Goldsetzer and colleagues in 44 low-middle income countries found that high blood pressure is often underdiagnosed due to health system limitations and lack of awareness (9). In line with our findings, Irazola and colleagues noted that implementing simple, protocol based treatment and supporting community health workers has significantly improved control of high blood pressure in several low and middle income areas (10). This aligns with findings of Islam and colleagues emphasized the importance of culturally adapted, community based interventions for improving high blood pressure in developing countries (11). According to the Global Burden of Disease study 2021, remains a leading risk factor globally, accounting for millions of deaths and disability-adjusted life years, with particularly high burden observed in low to middle SDI regions including Central Asia (12). Teaching individuals about hypertension early in life helps not only in the short term but can also affect healthier lifestyles that continue throughout adulthood, reducing the future burden of disease for non-communicable conditions. In countries like Afghanistan, where health and healthcare access is limited, such interventions may be crucial to the prevention of the development of hypertension and its complications in future generations. Through bridging the knowledge gaps, removing myths, and providing practical health education, it is possible to make sure that hypertension does not spread as an epidemic among the young people of West Kabul. According to this research, there is a requirement for successful and culturally sensitive health education programs that will raise awareness and result in better health outcomes within the area.

5. Conclusion

This study evokes an emergent need for increased awareness of hypertension among youths of West Kabul. Although all participants knew about hypertension, there was very poor awareness of its risk factors and complications. Awareness drives in the field of public health are needed to make youths study about the need for healthy living to prevent hypertension and its resultant health outcomes.

An interdisciplinary program strategy involving school, healthcare, and community needs to be utilized to address this knowledge gap. Youths need to be taught consistently and openly by healthcare workers on the prevention of hypertension.

Moreover, policy action needs to highlight incorporating non-communicable disease prevention into national health programs. Both government and non-government action will ensure there are sustainable awareness campaigns in place. Further studies need to assess the sustainability of these interventions over the long term and determine the best method for improving hypertension awareness among Afghan youths.

Furthermore, the findings of this study bring to the fore the public health issue of poor health literacy in situations of conflict and limited resources. In Afghanistan, for instance, where there is a fledgling healthcare system and minimal education facilities, concerted efforts must be taken to educate the masses—in particular, the youths—on preventable diseases like hypertension. Schools are potential sites for the delivery of

regular and culturally relevant health education, and electronic media and peer programs can transcend literacy restrictions and contact more individuals.

With as large a percentage of the responses being under the false notion regarding diet, lifestyle, and the effects of hypertension, such information gaps have to be filled through intense and sustained communication, interactive training, and youths programs. An early prevention attitude has to be imbibed, prior to adulthood when most of the risk factors are more prevalent and harder to reverse.

Last but not least, an investment in awareness today will not only lighten the load of the future Afghan healthcare system, but will allow the next generation to be the master of their own health. Empowered youths are not only healthier citizens but instigators of healthier communities as well.

6. Recommendations

Based on our findings, we recommend:

1. Educational programs: Integrating hypertension awareness into school curricula.
2. Community outreach: Conducting local workshops on hypertension prevention.
3. Media campaigns: Using social media and television to promote public awareness.
4. Health screenings: Encouraging routine blood pressure monitoring in schools and community centers.

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