Medox Journal of Public Health

Homepage: https://journals.medoxhrc.org/index.php/mjph

Original Article

Prevalence and Potential Risk Factors of Hypertension Among Young Adults in Kinondoni Municipal Council, Tanzania

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Article history: *Received: 19 Mar 2026 | Revised: 30 Apr 2026 | Accepted: 03 May 2026 | Published online: 10 May 2026*

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ABSTRACT

Background: Hypertension has emerged as a critical non-communicable disease affecting not only older populations but increasingly young adults, particularly in urbanizing regions such as Kinondoni Municipal Council in Dar es Salaam, Tanzania. Sedentary lifestyles, poor dietary choices, and inadequate awareness have intensified this trend, making early diagnosis and prevention essential. The study aimed at examining the prevalence and potential risk factors of hypertension among young adults in Kinondoni Municipal Council in Dar es Salaam, Tanzania.

Materials and Methods: The study employed a descriptive cross-sectional design, which applied quantitative approach from November, 2024 to June, 2025. A total of 398 young adults aged 18–35 years were involved from the wards of Kawe, Msasani, and Mikocheni, selected through multistage stratified random sampling. Data were collected using structured questionnaires and direct blood pressure measurements, then analyzed using Statistical Package for Social Sciences (SPSS) version 22.

Results: The study revealed high prevalence of hypertension (37.0%), with most diagnoses occurring between the ages of 20–30 years. Notably, only 16.7% of those diagnosed were on antihypertensive medication, and 71.3% rarely monitored their blood pressure. Key potential risk factors included low physical activity (71.8%), daily consumption of processed foods (76.0%), and frequent addition of salt/sugar/oil to meals (60.1%), alcohol use (40.6%), and tobacco smoking (19.8%). Psychological stress/anxiety was reported by 44.0%, while 50.0% had a family history of hypertension; obesity (12.0%) and diabetes (7.0%) were also observed as co-morbidities. Additionally, 76.7% of participants did not report hospitalization due to hypertension-related complications.

Conclusion: These findings underscore the urgent need for targeted public health interventions emphasizing routine screening, awareness campaigns, lifestyle modifications, and mental health support.

Keywords: Hypertension, Prevalence, Risk factors

Cite this article as: *Kinemelo E, Salim S, Mahenge N. Prevalence and Potential Risk Factors of Hypertension Among Young Adults in Kinondoni Municipal Council, Tanzania. Medox J Public Health. 2026;1(1):e2. https://doi.org/10.66531/mjph.2026.v1i1.e2*

INTRODUCTION

Hypertension, which is normally known as high blood pressure, is a significant public health concern worldwide. Hypertension is a major public health problem due to its high prevalence all around the globe. Around 7.5 million deaths (12.8%) of the total annual deaths worldwide occur due to high blood pressure [1]. Hypertension is a chief risk factor for cardiovascular diseases, stroke, kidney failure, and other life-threatening conditions [2]. Current studies indicate an increasing prevalence among young adults (18 to 35 years old) due to varying lifestyles, including poor dietary habits, physical inactivity, and rising obesity rates [1]. Hypertension is one of the foremost non-communicable diseases (NCDs), with an estimated prevalence of 31.1% among adults [3]. A considerable portion of the affected population resides in low- and middle-income countries, where access to healthcare and awareness about hypertension remain low. Alarmingly, studies suggest that hypertension among young adults is increasing, mainly due to urbanization, physical inactivity, and poor dietary habits [4].

Sub-Saharan Africa (SSA) is facing a rapid rise in hypertension cases, with approximations showing that 25%–40% of the adult population is hypertensive [5]. The prevalence among young adults in SSA is increasing due to urbanization, dietary shifts, and economic challenges leading to unhealthy lifestyles. A study in Nigeria found that 22.6% of young adults aged 18–35 years were hypertensive, while similar trends have been observed in Kenya, Ghana, and South Africa [6]. In East Africa, the burden of hypertension varies across countries but remains a growing concern. A systematic review found that the prevalence of hypertension among young adults (18–35 years old) in East Africa ranges from 15% to 27%, with urban dwellers exhibiting higher rates than their rural counterparts. Contributing factors include increased consumption of processed foods, reduced physical activity, and genetic susceptibility [7].

The prevalence of hypertension among young adults has been rising in African countries, including Tanzania, due to urbanization, increased consumption of processed foods high in salt, sugar, and fats, as well as sedentary lifestyles. Studies indicate that in some regions of Africa, the prevalence of hypertension among young adults ranges from 10% to 30%, with variations based on geographical location, genetics, and health behaviors [8]. This highlights the need for targeted interventions to mitigate potential risk factors, especially in urban areas like Kinondoni Municipal Council.

In Tanzania, the prevalence of hypertension among young adults is around 12–13%, with males generally showing slightly higher rates than females [9]. Hypertension is emerging as a silent epidemic, particularly in urban areas like Kinondoni Municipal Council in Dar es Salaam. Rapid urbanization, economic growth, and lifestyle changes have contributed to the increased burden of non-communicable diseases (NCDs), including hypertension [1]. Many young individuals remain unaware of their hypertensive status due to a lack of regular health check-ups and limited awareness of risk factors. This lack of knowledge and poor health-seeking behavior may lead to long-term complications [10]. In Kinondoni Municipal Council, urbanization and lifestyle changes have increased the prevalence of hypertension, yet there is inadequate research quantifying its prevalence and identifying potential risk factors among young adults. This study aimed to address this gap by assessing the prevalence and determining the major contributing factors to hypertension among young adults in Kinondoni Municipality.

MATERIALS AND METHODS

Study Area

The study was conducted in Kinondoni Municipal Council, one of the municipalities in Dar es Salaam, Tanzania. Kinondoni is an urban area with a high population density and diverse socio-economic activities such as fishing in areas near the Indian Ocean, including Msasani and Kunduchi. Small-scale manufacturing industries produce goods such as textiles, furniture, food products, and construction materials. Popular tourism spots include Coco Beach, Bahari Beach, and Oyster Bay, which generate income for local businesses. Financial institutions such as NMB, CRDB, and NBC banks support businesses through loans and investments, making it an ideal location for studying lifestyle-related health issues such as hypertension. Kinondoni Municipality consists of 20 wards, including Bungu, Goba, Hananasif, Kawe, Kibamba, Kijitonyama, Kinondoni, Kimara, Makumbusho, Magomeni,

Makongo, Mbezi, Mbweni, Mikocheni, Msasani, Mzimuni, Ndugumbi, Kunduchi, Mwananyamala, and Tandale. Kinondoni Municipal Council is bordered to the east by the Indian Ocean, providing a coastal boundary along Dar es Salaam. To the west, it neighbors Kibaha District in the Coastal Region, while to the north, it shares a boundary with Bagamoyo District in Pwani Region. In the south, Kinondoni is adjacent to Ilala Municipal Council, and to the southwest, it borders Ubungo Municipal Council, which was separated from Kinondoni in 2016.

Research Design

This study employed a cross-sectional descriptive design to assess the prevalence and associated risk factors of hypertension among young adults in Kinondoni Municipal Council from November, 2024 to June, 2025. A cross-sectional design is suitable for determining the relationship between hypertension and its potential risk factors at a specific point in time.

Research Approach

This study applied quantitative approach to provide a comprehensive understanding of the prevalence and risk factors of hypertension among young adults in Kinondoni Municipal Council**.** This allows for statistical analysis to determine the prevalence of hypertension and potential risk factors through descriptive statistics.

Study Population

The target population consisted of young adults aged 18-35 years residing within three wards which are Mikocheni, Msasani and Kawe in Kinondoni Municipal Council. These wards were selected due to the increasing prevalence of hypertension among young individuals which may be caused by lifestyle changes, urbanization, and dietary habits [11].

Inclusion Criteria

To be eligible for participation in the study, individuals aged between 18 and 35 years were selected**,** ensuring the focus remains on young adults. They resided in Kinondoni Municipal for at least one year to ensure familiarity with the local environment. Additionally, participants' willingness to participate by signing informed consent were ensured. Also, ensuring ethical compliance and voluntary involvement in the study was considered.

Exclusion Criteria

Individuals with severe illnesses that may interfere with participation were excluded to ensure their well-being and the integrity of the study. Lastly, those who declined to provide consent were excluded in adherence to ethical research guidelines that prioritize voluntary participation.

Sample Size

According to the 2022 Tanzanian Census, the total number of young adults aged 18 to 35 in Mikocheni, Msasani, and Kawe wards within Kinondoni Municipal Council is 78,638. The sample size is determined using Yamane's formula:

Formula for Sample Size (n):

$$n = \frac{N}{1 + N(e^2)}$$

Whereby:

n = required sample size

N = Total population

e = Margin of error (commonly 0.05 for 95% confidence level)

From the formula above:

N = 78,638; e = 0.05

$$n = \frac{78{,}638}{1 + 78{,}638(0.05^2)}$$

$$n = 397.986$$

$$n \approx 398$$

Therefore, the study used 398 participants.

Stratified Sample Size

Now, how to obtain the sample size of each stratum (Stratum 1, Stratum 2, and Stratum 3 which represent Kawe, Msasani, and Mikocheni respectively).

Given that the population size for:

- Stratum 1 (Kawe) = 38,618
- Stratum 2 (Msasani) = 22,073
- Stratum 3 (Mikocheni) = 17,947

Stratum 1: Kawe

$$P_1 = \frac{N_1}{N} = \frac{38{,}618}{78{,}638}$$
$$n_1 = n \times P_1 = 398 \times \frac{38{,}618}{78{,}638}$$
$$n_1 = 195.452 \approx 195$$

Therefore, in Kawe ward, 195 participants were involved.

Stratum 2: Msasani

$$n_2 = n \times \frac{N_2}{N} = 398 \times \frac{22{,}073}{78{,}638}$$
$$n_2 = 111.715 \approx 112$$

Therefore, in Msasani ward, 112 participants were involved.

Stratum 3: Mikocheni

$$n_3 = n \times \frac{N_3}{N} = 398 \times \frac{17{,}947}{78{,}638}$$
$$n_3 = 90.832 \approx 91$$

Therefore, in Mikocheni ward, 91 participants were involved.

Sampling Procedure

A multistage sampling method was applied to select participants within Kinondoni Municipal Council. In the first stage, stratification by wards was conducted by dividing Kinondoni Municipal Council into multiple wards (strata). From the 20 wards in Kinondoni, three wards which were Kawe, Mikocheni, and Msasani selected randomly to ensure geographical representation within the municipal area that covers 15% of all wards**.** In the second stage, systematic random sampling was used to select streets within each of the three selected wards (Kawe, Mikocheni, and Msasani). Since each ward consists of multiple streets (sub-units), a systematic approach was applied where streets were chosen at equal intervals from a random starting point. This method helps reduce bias while maintaining randomness, ensuring a well-distributed selection of streets across the wards**.** In the third stage, household selection was conducted by randomly choosing households within the selected streets. A random sampling technique was applied to ensure that every household has an equal chance of being selected, which prevents clustering bias and ensures a fair and representative distribution of participants across the study area**.** In the fourth stage, random selection of eligible participants was conducted within each selected household, considering only young adults aged 18–35 years.

Data Collection Tools

A structured questionnaire was used to collect demographic data, lifestyle habits, and family history of hypertension from participants.

Data Analysis and Presentation

Quantitative data were analyzed using Statistical Package for Social Sciences (SPSS) version 22 and Microsoft Excel to summarize the data, which were presented using tables.

RESULTS

Socio-Demographic Characteristics

The demographic profile of respondents provides valuable context for understanding how age, gender, and education may influence the prevalence of hypertension. The study involved 398 respondents, with the majority aged 30–35 years (49.7%), followed by 24–29 years (39.2%) and 18–23 years (11.1%). Gender distribution was nearly equal, with 50.8% males and 49.2% females, enabling meaningful gender-based comparisons in hypertension prevalence and potential risk factors. In terms of education, most respondents had higher education (60.6%), followed by secondary education (32.9%), primary education (5.5%), and no formal education (1.0%). This predominantly educated sample suggests generally good access to health information and the potential for better hypertension awareness and management, although lifestyle factors such as stress, diet, and physical inactivity may still influence outcomes (Table 1).

Table 1: Socio-Demographic Characteristics of Respondents (N=398)

Variable	Frequency (n)	Percentage (%)
Age (years)		
18–23	44	11.1
24–29	156	39.2
30–35	198	49.7
Gender		
Male	202	50.8
Female	196	49.2
Education Level		
No formal education	4	1.0
Primary	22	5.5
Secondary	131	32.9
Higher education	241	60.6

Prevalence of Hypertension and Blood Pressure Levels

Out of 398 participants, 252 (63.0%) were not diagnosed with hypertension while 146 (37.0%) reported that they had been diagnosed with hypertension (Table 2). Systolic and Diastolic Blood Pressure Levels were analysed such that; 216 (54.2%) had normal systolic blood pressure (90–119 mmHg), while 108 (27.1%) exhibited elevated systolic pressure (120–129 mmHg), a pre-hypertensive state that may progress without timely intervention. Additionally, 25 participants (6.2%) were in Stage 1 hypertension (130–139 mmHg), and 8 (2.1%) in Stage 2 (140–179 mmHg). Conversely, 41 (10.4%) recorded low systolic readings (<90 mmHg). For diastolic blood pressure, 80 (20.1%) had elevated readings (80–89 mmHg), but 46 (11.5%) showed low values (<60 mmHg), meanwhile, 46 (11.5%) had Stage 1 hypertension (90–119 mmHg), and 20 (5.2%) were in Stage 2 (>120 mmHg) as Table 2 signifies.

Table 2: Prevalence of Hypertension and Blood Pressure Levels (N=398)

Variable	Frequency (n)	Percentage (%)
Hypertension Status		
Hypertensive	146	37.0
Not hypertensive	252	63.0
Systolic BP (mmHg)		
<90 (Low)	41	10.4
90–119 (Normal)	216	54.2
120–129 (Elevated)	108	27.1

130–139 (Stage 1)	25	6.2
≥140 (Stage 2)	8	2.1
Diastolic BP (mmHg)		
<60 (Low)	46	11.5
60–79 (Normal)	206	51.7
80–89 (Elevated)	80	20.1
90–119 (Stage 1)	46	11.5
≥120 (Stage 2)	20	5.2

Risk Factors Associated with Hypertension

Lifestyle Risk Factors

In tobacco smoking, 79 participants (19.8%) reported smoking tobacco, while 319 participants (80.2%) did not. In alcohol consumption, 161 participants (40.6%) reported consuming alcohol, while 237 (59.4%) did not, as indicated in Table 3. A large proportion of 286 participants (71.8%) said that they only occasionally engage in physical activity, 49 participants (12.3%) said they do physical exercises 1–3 days per week, while 24 (6.0%) do so weekly, and only 14 (3.6%) said they engage in physical activity daily. A significant majority, approximately 303 participants (76.0%), reported daily consumption of processed food, while a smaller proportion, around 91 participants (23.0%), consumed processed food 2–3 times a week, and approximately 4 (1.0%) did so weekly, as shown in Table 3.

Table 3: Lifestyle Risk Factors among Respondents (N=398)

Variable	Frequency (n)	Percentage (%)
Tobacco use		
Yes	79	19.8
No	319	80.2
Alcohol consumption		
Yes	161	40.6
No	237	59.4
Physical activity		
Daily	14	3.6
Weekly	24	6.0
1–3 days/week	49	12.3
Occasionally	286	71.8
Processed food intake		
Daily	303	76.0
2–3 times/week	91	23.0
Weekly	4	1.0

Family History and Medical Conditions

About 199 young adults (50.0%) reported a family history of hypertension**,** while 100 young adults (25.0%) reported that they did not have a family history, and about 48 participants (12.0%) were unsure**.** Regarding co-morbid medical conditions, 28 participants (7.0%) reported having diabetes**,** 48 participants (12.0%) reported obesity**,** and 16 participants (4.0%) reported a history of heart disease**.** Notably, the majority, 247 participants (65.0%) reported having none of these medical conditions, as shown in Table 4.

Table 4: Clinical Characteristics and Co-morbidities (N=398)

Variable	Frequency (n)	Percentage (%)
Family history of hypertension		
Yes	199	50.0
No	100	25.0
Not sure	48	12.0
Co-morbidities		
Diabetes	28	7.0
Obesity	48	12.0
Heart disease	16	4.0
None	247	65.0

Behavioural and Health Practices

Regarding blood pressure monitoring, 35 participants (8.8%) said they check their BP weekly, and also 35 participants (8.8%) check their BP monthly, while most participants, 284 (71.3%), rarely check their BP, and 44 participants (11.1%) never checked their BP (Table 5). Additionally, 239 participants (60.1%) always add extra salt, sugar, or oil to their food, 147 (37.2%) do so sometimes, and only 12 participants (2.7%) rarely engage in this behavior (Table 5).

Furthermore, 175 participants (44%) reported experiencing frequent stress or anxiety within the past six months, while the remaining 223 (56%) indicated that they had not experienced such psychological distress during that period, as shown in Table 5. A large proportion, 305 (76.7%), reported no prior hospitalization, 38 (9.6%) said they had been hospitalized at least once, while 21 (5.3%) said they had been hospitalized two or more times, and 21 (5.3%) reported being hospitalized more than three times, while only 13 (3.1%) said they had been hospitalized more than five times, as illustrated in Table 5.

Table 5: Behavioral and Health Practices (N=398)

Variable	Frequency (n)	Percentage (%)
Blood pressure monitoring frequency		
Weekly	35	8.8
Monthly	35	8.8
Rarely	284	71.3
Never	44	11.1
Salt/sugar/oil addition to food		
Always	239	60.1
Sometimes	147	37.2
Rarely	12	2.7
Psychological stress/anxiety (past 6 months)		
Yes	175	44.0
No	223	56.0
Hospitalization due to hypertension		
None	305	76.7
Once	38	9.6
Twice	21	5.3
≥3 times	34	8.5

DISCUSSION

The results suggest that although most participants (63.0%) had not been diagnosed with hypertension, a considerable minority (37.0%) had. This reflects the emerging public health concern of NCDs particularly hypertension, in Kinondoni, Tanzania. The presence of more than one-third of participants with hypertension is driven by lifestyle risk factors like poor diet, physical inactivity, alcohol consumption and tobacco use. These findings align with the study conducted in Nakuru, Kenya which found a hypertension prevalence of 37.5% mainly contributed by many people being unaware of their hypertension and lifestyle risk factors [8].

The study results revealed that only a small proportion of participants (8.8%) check their BP weekly or monthly respectively, which indicates poor practices of routine BP monitoring within Kinondoni Municipality. This is influenced by factors such as low awareness of hypertension risks and low health education targeting NCDs like hypertension. The study results are similar to a review that confirmed that less than 20% of hypertensive individuals in SSA were aware of their status [12].

The findings indicate 27.1% of young adults with elevated systolic blood pressure**,** 6.3% in Stage 1, and 2.1% in Stage 2 hypertension**,** along with 11.5% and 5.2% of young adults in Stage 1 and 2 for diastolic pressure respectively, reflecting a troubling burden of undiagnosed or poorly managed hypertension among young adults which was influenced by the existence of gaps in follow-up, medication adherence, and lifestyle support in Kinondoni Municipality. These results are similar to a baseline survey conducted in rural Uganda, which reported substantial proportions of adults with uncontrolled hypertension**,** with limited awareness or access to follow-up care [13].

The results indicate that the large proportion of young adults in Kinondoni municipality (76.7%) with hypertension had never been hospitalized while only a few young adults said to be hospitalized because they had experienced severe complications which require repeated admissions due to limited adherence to treatment or delays in diagnosis and management. The high frequency of young adults with hypertension not being hospitalized is influenced by factors like mild or early-stage hypertension, low awareness and knowledge concerning hypertension risks and also economic challenges. These results align with a study conducted at the Bugando Medical Centre (BMC) Outpatient Department in Mwanza, Tanzania, found that 63.1% of patients with hypertensive emergency were not admitted while only 16.7% of those hypertensive emergencies were admitted [14].

Furthermore, the findings show that 19.8% of young adults reported smoking and 40.6% consumed alcohol, highlighting widespread exposure to these risks in Kinondoni's youth population. Tobacco use contributes to hypertension through vasoconstriction, increased sympathetic activity, and endothelial dysfunction**,** all of which elevate blood pressure over time. The higher rate of tobacco smoking and alcohol consumption among young adults in Kinondoni Municipality is influenced by peer pressure and social influence, stress, family background, and role models accelerating risk of getting hypertension among young adults. These findings are similar to the cross-sectional study conducted in Mekelle, Ethiopia by Mekelle University health sciences students' who found that 29.5% of current smokers aged 17-26 years are hypertensive [15]. Similarly, a study conducted in Ifakara, Morogoro, Tanzania which found that 39.2% of young adults aged 15-23 who consume alcohol had hypertension [16].

The study indicates that 71.8% of young adults rarely engage in physical exercise, which indicates a critical risk factor contributing to the rising prevalence of hypertension among young adults in Kinondoni. These findings align with a study conducted in Western Shewa, Ethiopia, which found that 65% of urban adults did not meet the WHO recommended physical activity guidelines (such as having at least 150-300 minutes for moderate-intensity aerobic physical exercises per week, reducing sedentary behavior etc.) which significantly increased their risk of hypertension and obesity [17]. Similarly, in Nigeria it was reported that more than 60% of university students were physically inactive, and this was directly associated with elevated systolic and diastolic pressures [18].

The findings show that 76.0% of participants consume processed foods daily while only 1.0% consumes them infrequently**.** This indicates that processed foods are a dietary staple for nearly the entire study population, an alarming trend considering the established link between high intake of processed foods and hypertension. This high consumption of processed food among young adults in

Kinondoni municipality is particularly influenced by urban lifestyle, easy access and affordability of fast and processed foods, especially those high in sodium, trans-fats, added sugars, and preservatives have been consistently associated with elevated blood pressure and increased cardiovascular risk. These findings are similar to a study conducted at Kenyatta National Hospital, Kenya which showed that over 70% of university students consumed fast food regularly which is associated with higher body mass index (BMI) and cardiovascular risks [19]. Likewise, a study conducted in Brazil reported that 61.0% of young adults consumed processed food daily, highlighting the global nature of this dietary transition [20].

The study results indicate that 60.1% of respondents always add extra salt or sugar to their food while only 2% rarely engage in this behavior which suggests that there are high sodium or sugar intake behaviors that significantly elevate the risk of developing or worsening hypertension among young adults in Kinondoni, Municipality. This risk behavior is contributed by factors like taste preferences and habits, cultural and social influences and limited awareness of health risks related to excessive sugar and salt consumption. These findings are consistent with research as demonstrated in the DASH-Sodium trial that reducing sodium intake significantly lowered blood pressure across various demographic groups, even among those with pre-hypertension [21]. In Tanzania, a study found that the majority of urban adults (73.3%) reported frequent salt addition to meals, linking this practice with poor hypertension control [22].

The findings show a significant role of both genetic predisposition and medical co-morbidities in shaping the risk profile of young adults for hypertension as over half of the young (50.0%) reported a family history of hypertension, which is a major non-modifiable risk factor. These results suggest that there is a high proportion of participants with a positive family history which implies an increased susceptibility to hypertension among young adults in Kinondoni, Municipal. This high proportion of hypertensive family history among young adults in Kinondoni, Municipality is contributed by factors like genetic predisposition, urbanization, lifestyle behaviors, and early onset of hypertension in parents. These findings align with the community-based cross-sectional study conducted in Manzese, Dar es Salaam which found the hypertension prevalence of 45.8% having a family history of hypertension increased by 31% [23]. However, these study results differ from the results of a study conducted in north-western, Tanzania which found that only 8.5% of students recognized family history as a risk factor for hypertension due to low awareness concerning genetic predisposition and hypertension, despite high familial exposure [24].

The findings indicate that 44.0% of young adults in Kinondoni reported frequent stress or anxiety, which is a significant proportion and suggests that nearly half the population is dealing with persistent psychological strain. While 56% did not report such experiences, which indicate the importance of considering stress or anxiety, especially considering the well-established connection between stress and elevated blood pressure. Over time, repeated or sustained stress can damage blood vessels, increase inflammation, and contribute to poor health behaviors such as smoking, alcohol use, poor diet, and physical inactivity. Those factors were further compounding hypertension risk. The large proportional rate of young adults in Kinondoni, Municipality is influenced by factors like academic, financial, and social strains. The results are similar to a cross-sectional study conducted at the University of Dodoma which found that 51.8% of undergraduate students self-reported mental distress, defined through anxiety, depression and somatic symptoms like sleep disturbances and fatigue [25]. However, a contrasting study at Kilimanjaro Christian Medical University College in northern Tanzania reported only 14% prevalence of mental distress [22]. This difference is due to variation in assessment tools, institutional environment, and timing of data collection (e.g., exam vs. non-exam periods) and availability of social or counseling support.

STRENGTHS AND LIMITATIONS

On one hand, the study has come up with strategies for strengthening health education targeting young adults to promote awareness about the risks and prevention of hypertension, promoting healthy eating habits by encouraging reduced consumption of processed foods and minimizing added salt and sugar in daily diets, addressing psychological factors by providing counseling services and stress management programs, especially in schools and workplaces. Furthermore, the study expects to raise awareness about the dangers of tobacco and alcohol use and implement community

screening programs for early detection of hypertension to facilitate timely intervention and management. Therefore, the findings of this study should prompt urgent, multisectoral action to address the silent rise of hypertension among young adults in Tanzania's urban areas.
On the other hand, there were some limitations in the research process; during data collection, some participants delayed responding on time when filling in the questionnaires, and some participants were afraid during blood pressure measurements.

CONCLUSION

This study assessed the prevalence and potential risk factors of hypertension among young adults aged 18–35 in Kinondoni Municipal Council, Tanzania revealing a notable challenge of hypertension with a strikingly high prevalence rate of 37%. The findings indicate that hypertension is no longer confined to older adults, as most diagnoses occurred between 20-35 years. The study identified potential risk factors including high intake of processed foods, excessive addition of salt and sugar to meals. Furthermore, physical inactivity, tobacco and alcohol use, family history of hypertension, stress, and anxiety are reported potential risk factors for hypertension among young adults. Despite the prevalence of these potential risk factors, routine blood pressure monitoring and hospitalization due to hypertension-related issues remain low among young adults, indicating a gap in awareness and health-seeking behaviors. The findings call attention to the urgent need for targeted interventions to address lifestyle risks and improve early detection and management of hypertension in this demographic.

DECLARATIONS

Ethical Approval: The ethical approval was sought from the Department of Environmental Health Sciences at Ruaha Catholic University with reference number RUCU/DEHSREC/31/2024.

Informed Consent: Written informed consent was obtained from all participants prior to data collection.

Consent for Publication: Not applicable.

Conflict of Interest: The authors declare no conflict of interest.

Funding: This research received no external funding.

Authors' Contributions: Supervising, writing the original draft and revising the manuscript: EK. Data collection and analysis: SS. Proof reading the manuscript: NM.

Data Availability: The datasets generated and analyzed during this study are not publicly available due to ethical and confidentiality restrictions. However, they may be obtained from the corresponding author upon reasonable request, subject to approval by the relevant ethics committee.

Acknowledgments: The authors are thankful to God who ensures everything goes well. Also, appreciations reach the Vice Chancellor of the Ruaha Catholic University, Sr. Prof. Chrispina Lekule and Dean of ICT Faculty, Rev. Dr. Benedict Nyoni for their encouragement.

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