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Evaluation of Fruit and Vegetable Consumption Habits Among Bankers in Ho Municipality, Volta Region, Ghana

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Abstract:

Research findings show that insufficient fruit and vegetable intake increases the risk of cardiovascular diseases, stroke, diabetes, and obesity. However, many individuals across various age groups and professions fail to meet the recommended daily intake of 4–5 servings. One such underrepresented group is bankers. This study assessed fruit and vegetable consumption practices among 157 bankers from 12 banks in Ho Municipality. Findings revealed that 48.4% of participants were overweight, with males recording the highest frequency, while 40.8% were obese and only 10.8% had a normal BMI. Most respondents consumed 1-2 servings daily, falling short of the recommended intake. Pawpaw was the most consumed fruit, followed by bananas and oranges, while soursop and apples were least consumed. Many participants were unaware of the link between fruit and vegetable intake and health outcomes such as diabetes, weight gain, and cardiovascular diseases. Financial constraints and high costs were notable barriers to consumption. Though no significant association was found between fruit intake and waist-to-hip ratio ($p = 0.212$), the findings emphasise the increased cardiovascular risk, especially among male bankers. The study also acknowledges the need for targeted awareness campaigns to promote adequate fruit and vegetable intake among bankers to improve their health outcomes.

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1. INTRODUCTION

Food is a fundamental need in Maslow's hierarchy, essential for survival and overall well-being. Among various food groups, fruits and vegetables play a crucial role in health promotion. They are rich in phytonutrients, vitamins, minerals, and dietary fiber—all contributing to disease prevention and overall health [1]. Regular consumption is associated with improved cardiovascular function, enhanced metabolic health, and reduced risks of diabetes, obesity, and certain cancers [1].

According to Joao Silva Dias, phytochemicals in fruits and vegetables act as antioxidants, aiding metabolic regulation, reducing carcinogenic risks, and protecting cells from oxidative stress [2]. These bioactive compounds, including flavonoids, carotenoids, and polyphenols, neutralise free radicals, preventing chronic illnesses. Increased fruit and vegetable intake also enhances mental well-being, with even minor dietary improvements positively impacting mood, life satisfaction, and psychological health [3].

Despite the well-known benefits of fruits and vegetables consumption, dietary patterns vary across populations, influenced by cultural, socio-economic, and occupational factors. Work environments, in particular, shape eating habits. Studies on occupational groups, such as bank employees, show how job demands, stress, and time constraints affect dietary behaviours. Research by Cattafesta *et al*. found that bank employees adhering to healthier diets were less likely to consume processed snacks or dine frequently at restaurants, emphasising how workplace habits influence nutrition choices [4]. Occupational settings can either promote or hinder healthy eating, depending on available options [4].

Fruits and vegetables can be consumed raw, cooked, or integrated into meals such as salads, soups, and traditional dishes, each offering unique nutritional benefits. While raw consumption preserves certain vitamins and antioxidants, cooking enhances the bioavailability of nutrients such as lycopene in tomatoes and beta-carotene in carrots [5]. Research further links vegetable-based meals to reduced risks of cardiovascular diseases, hypertension, and other health conditions [6]. Thus, both the quantity and quality of fruit and vegetable intake are essential for maximising health benefits [6].

In Ghana, non-communicable diseases (NCDs) are rising, with cardiovascular diseases accounting for significant morbidity and mortality [7]. This trend is driven by changing lifestyles, urbanisation, and dietary shifts toward processed, energy-dense foods. Professionals, including bankers, are particularly vulnerable due to sedentary work environments, long hours, and high stress. Studies suggest urban professionals face barriers to healthy eating, such as limited access to fresh produce, time constraints, and workplace cultures promoting convenience foods [8].

Limited data exist on fruit and vegetable consumption among Ghanaian bankers, despite their heightened NCD risk. As a group exposed to sedentary lifestyles and work-related stress, they face unique dietary challenges. Understanding their dietary practices is crucial for developing targeted interventions that promote healthier eating habits and improve overall health status. Given that bankers represent a significant segment of Ghana's professional workforce, addressing their nutritional needs could inform workplace wellness programmes and broader public health initiatives [8].

This study sought to fill this gap by examining fruit and vegetable consumption patterns among bankers in the Ho municipality, by identifying factors that influence their dietary choices, assess intake adequacy, and explore barriers to healthy eating.

2. METHODOLOGY

2.1. Study Design

A cross-sectional study using convenience sampling was conducted. A semi-structured questionnaire was developed to collect socio-demographic data, lifestyle behaviours, physical activity levels, anthropometric measurements, and patterns of fruit and vegetable intake. The questionnaire was validated through expert review and pilot testing. Height and weight were measured using a stadiometer and digital weighing scale to calculate BMI and assess participants' nutritional status.

2.2. Study Site

The study took place in 12 selected banks in Ho Municipality, Volta Region, Ghana. Ho, situated at latitude 6.60 and longitude 0.47, is the regional capital, with a population of 177,281 (2010 Population Census). It shares borders with Adaklu, Agotime-Ziope, Ho West District, and Togo. The municipality has a total land area of 2,361 km^2, with a tropical climate favourable for agriculture [9].

2.3. Study Population and Inclusion Criteria

The study participants were bankers from the selected banks in Ho Municipality, excluding security personnel and cleaners.

2.4. Sample Size Determination

The sample size was determined using Cochran's formula, adjusted for small populations. With a 95% confidence level ($z = 1.96$), $p = 0.05$, and a margin of error (e) = 0.05, an initial sample of 384 was calculated. Given the estimated banker population of 300, the formula for small population correction was applied, yielding a final sample size of 169, from which 157 participants were recruited.

2.5. Sampling Technique

A convenience sampling approach was employed, ensuring voluntary participation. The intake of fruits and vegetables and anthropometric measurements were assessed.

2.6. Data Collection Procedure and Equipment

Data collection took place between July and August 2022. Semi-structured questionnaires were administered, and anthropometric measurements were recorded. Height was measured using a calibrated stadiometer, and weight was assessed using a Seca 770 digital scale (Seca, Hamburg, Germany) with periodic calibration. Participants wore minimal clothing, removed shoes and jewelry, and maintained an upright posture for accuracy.

2.7. Statistical Analysis

Data were analysed using SPSS v26. Descriptive and inferential statistics were conducted, with a 95% confidence level and statistical significance set at $p < 0.05$.

2.8. Ethical Considerations

Ethical approval was obtained from the UHAS Research Ethics Committee, with formal permissions from the selected banks. Participants were informed about the purpose of the study, procedures, and confidentiality protocols before providing written consent. Anonymity was strictly maintained, with secure data storage accessible only to the researcher. No monetary incentives were offered. All COVID-19 safety protocols, including face masks and hand sanitisers, were observed.

3. RESULTS

As presented in Table **1**, a total of 157 consented bankers participated in the study. Most respondents (96.2%) were aged 19–45 years, with the 30–39 age group being the largest, comprising 81 participants (51.6%). This was followed by the 19–29 age group with 49 respondents (31.2%), and the 40–45 age group with 21 respondents (13.4%). The 52–56 age group had the fewest participants, with 6 respondents (3.8%). Regarding gender, 111 respondents (70.7%) were male, and 46 (29.3%) were female. Marital status data showed that 90 participants (57.3%) were single, 64 (40.8%) were married, while 2 (1.3%) were divorced and 1 (0.6%) was widowed. In terms of education, 153 respondents (97.5%) had tertiary education, while 1 (0.6%) had secondary education and 3 (1.9%) held doctoral degrees. Religious affiliation revealed that 148 participants (94.3%) were Christians, 7 (4.5%) were Muslims, and 2 (1.3%) were Traditionalists. Ethnically, Ewes were the majority, comprising 94 respondents (59.9%), followed by Akans with 50 (31.8%), Fantes with 6 (3.8%), Ga-Adangbes with 5 (3.2%), and Guans with 2 (1.3%).

3.1. Anthropometric Data of Participants

This section presents the nutritional status of participants based on body mass index (BMI) (Figure **1**) and waist-to-hip ratio (Figure **2**). BMI, calculated from height (m) and weight (kg), classifies participants according to WHO standards. Among the 157 participants, 76 (48.4%) were overweight, 64 (40.8%) were obese, and only 17 (10.8%) had a normal BMI range of 18.5–24.9 kg/m^2. Regarding waist-to-hip ratio, 81 participants (51.6%) were at risk of cardiovascular diseases [11], while 76 (48.4%) had ratios within the normal range (<0.85 for women and <0.95 for men).

The Table **2** below shows the relationship between gender and waist-to-hip ratio. Among 157 participants, 102 (65%) were at risk of cardiovascular diseases, with males comprising 79 (71.2%) and females 23 (50%). The remaining 55 (35%) had normal ratios, including 32 males (28.8%) and 23 females (50%). The results were insignificant ($p = 0.11$).

The bar chart (Figure **3**) illustrates the relationship between gender and waist-to-hip ratio among participants. Among females, the counts for both categories are nearly equal, with around 23 participants in each group. However, among the males were significantly higher, suggesting that males had a higher overall count, and were more likely to be at risk compared to the females.

Table 1: Socio-Demographic Characteristics of Participants

Characteristics	Frequency (n=157)	Percentage (%)
Age groups		
19-29	49	31.2
30-39	81	51.6
40-45	21	13.4
52-56	6	3.8
Gender		
Male	111	70.7
Female	46	29.3
Marital status		
Married	64	40.8
Single	90	57.3
Divorced	2	1.3
Widowed	1	0.6
Educational background		
Doctoral	3	1.9
Tertiary	153	97.5
Secondary	1	0.6
Ethnicity		
Akans	50	31.8
Ewes	94	59.9
Fantes	6	3.8
Ga-Adangbes	5	3.2
Guans	2	1.3
Religious affiliation		
Christian	148	94.3
Muslim	7	4.5
Traditionalist	2	1.3

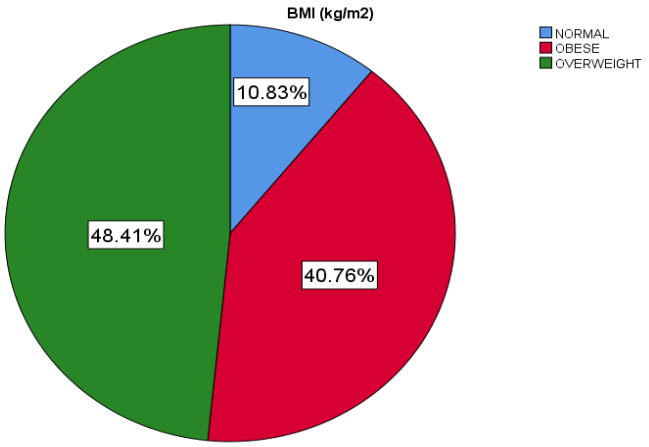

Figure 1: A pie chart showing the BMI categories of participants.

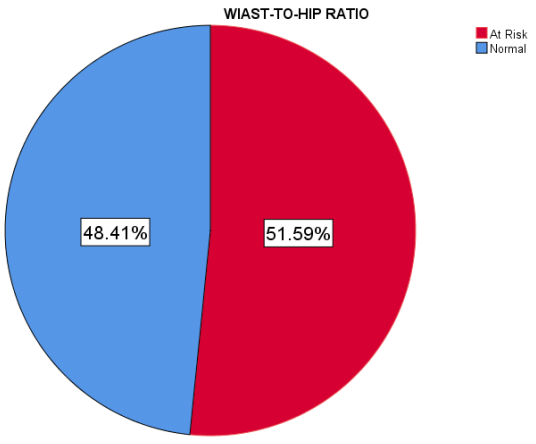

Figure 2: A pie chart showing the waist-hip-ratio of participants.

3.2. Dietary Information on Fruits and Vegetables

This section outlines participants' fruit and vegetable preferences, types consumed, frequency, daily servings, and form of consumption, assessing adherence to the WHO's recommended 4–5 daily servings.

Table **3** below shows fruit and vegetable consumption among respondents. Of the 157 participants, 150 (95.5%) consumed fruits and vegetables, while 7 (4.5%) did not.

The bar chart (Figure **4**) illustrates the specific fruits consumed by the 157 study participants. Pawpaw was the most commonly consumed fruit, reported by 41

Table 2: Association between Gender and Waist-to-Hip Ratio

Waist-to-Hip Ratio	At Risk	Normal	Total	p-Value
Male	79 (71.2%)	32 (28.8%)	111	0.11
Female	23 (50%)	23 (50%)	46	
Total	102 (65%)	55 (35%)	157	

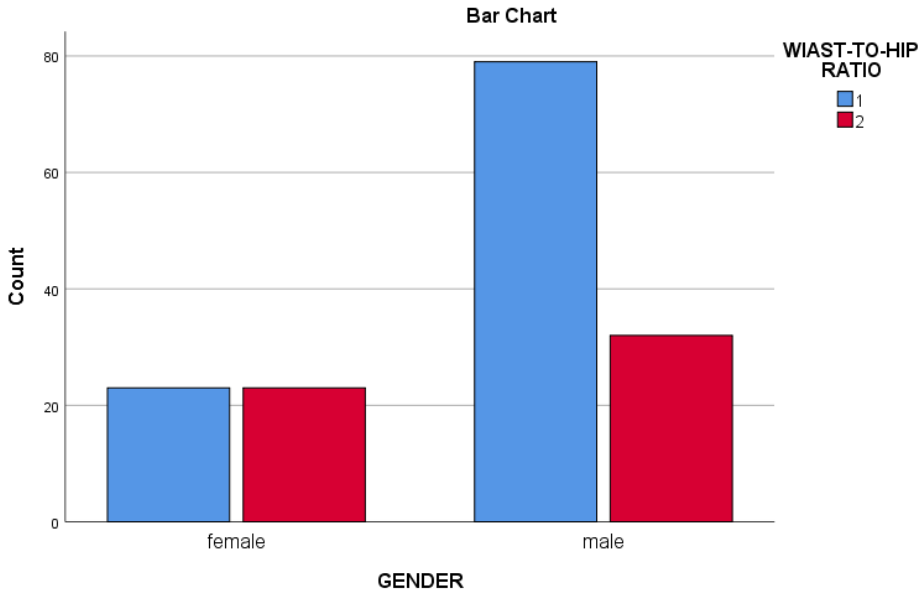

Figure 3: A clustered bar chart on the association between gender and waist-hip-ratio.

Table 3: Respondent Data on Fruits and Vegetable Consumption

Characteristics	Frequency (n=157)	Percentage (%)
Consumes Fruits and Vegetables		
Yes	150	95.5%
No	7	4.5%
Total	157	100%

respondents (26.1%). This was followed by a combination of banana and orange, consumed by 27 participants (17.2%), while banana alone ranked third with 16 respondents (10.2%). Other notable choices included orange (15 respondents, 9.6%), watermelon (11 respondents, 7.0%), and grapes, strawberry, and guava combined (9 respondents, 5.7%). Pear was consumed by 8 participants (5.1%), while a mix of banana, apple, grapes, pear, and mango accounted for 6 respondents (3.8%). Star fruit had 5 consumers (3.2%), while soursop and sugarcane were the least consumed, with 3 respondents each (1.9%).

Table **4** below presents data on the daily fruit and vegetable intake among 157 respondents. Regarding fruit consumption, the majority (76.4%) reported consuming fruits 1-2 times per day, followed by 14.6% who consumed fruits 3-4 times daily. A small proportion (4.5%) reported either no fruit intake or consuming fruits six or more times daily, while no respondents reported consuming fruits 4-5 times daily. For vegetable intake, 61.8% of respondents consumed vegetables 1-2 times per day, while 26.8% consumed them 3-4 times daily. A minority reported either no vegetable intake (4.5%), consuming vegetables 4-5

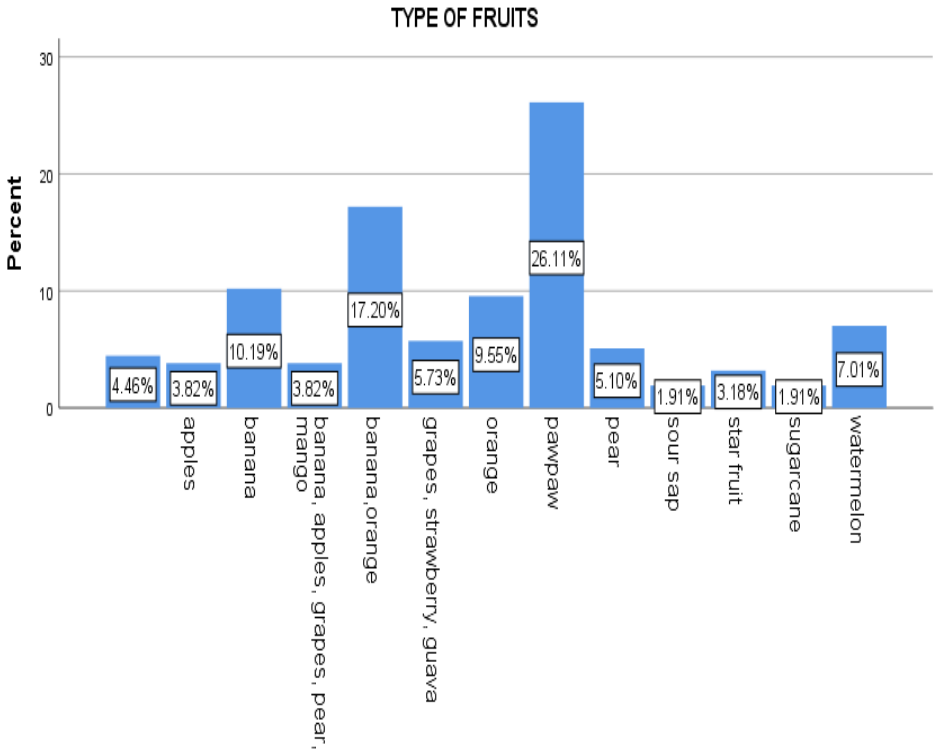

Figure 4: A bar chart on the choice of fruits consumed by participants.

Table 4: Respondent's Data on Daily Fruits and Vegetable Intake

Characteristics	Frequency (N=157)	Percentage (%)
Fruit intake in a day		
None	7	4.5
1-2 times daily	120	76.4
3-4 times daily	23	14.6
4-5 times daily	0	0
6 or more times	7	4.5
Total	157	100
Vegetable intake in a day		
None	7	4.5
1-2 times daily	97	61.8
3-4 times daily	42	26.8
4-5times daily	3	1.9
6 or more times daily	8	5.1
Total	157	100

times daily (1.9%), or six or more times daily (5.1%). These findings highlight that most respondents maintained moderate daily consumption of fruits and vegetables, with fewer individuals reporting either very low or very high intake levels.

The Table **5** below summarises the daily fruit and vegetable intake among the 157 respondents. The majority, 113 (72%), consumed 1-2 servings of fruits daily, followed by 29 (18.5%) consuming 3-4 servings. Only 4 (2.5%) reported 4-5 servings, while 6 (3.8%)

Table 5: Respondents' Data on Servings of Fruits and Vegetables in a Typical Day

Characteristics	Frequency (n=157)	Percentage (%)
Servings of fruit		
None	7	4.5
1-2 servings	113	72
3-4 servings	29	18.5
4-5 servings	4	2.5
6 or more servings	4	2.5
Total	157	100
Servings of vegetables		
None	7	4.5
1-2 servings	112	71.3
3-4 servings	30	19.1
4-5 servings	2	1.3
6 or more servings	6	3.8
Total	157	100

Table 6: Association between Waist-to-Hip Ratio and Fruit and Vegetable Consumption

Waist-Hip-Ratio	Yes	No	Total	p-Value
Normal	71 (93.4%)	5 (6.6%)	76	0.212
At risk of CVDs	79 (97.5%)	2 (2.5%)	81	
Total	150 (95.5%)	7 (4.5%)	157	

consumed six or more servings per day. Similarly, 112 respondents (71.3%) consumed 1-2 servings of vegetables daily, followed by 30 (19.1%) consuming 3-4 servings. The least common frequencies were 4-5 servings (2 respondents, 3.8%) and six or more servings (6 respondents, 3.8%) per day.

A cross-tab analysis was conducted to examine the relationship between fruit and vegetable consumption and waist-hip ratio. The results showed an insignificant relationship between vegetable consumption and waist-hip ratio ($p=0.212$, $p<0.05$). Among the 81 participants at risk of cardiovascular diseases, 79 (97.5%) consumed vegetables, while 2 (2.5%) did not. Similarly, among the 76 participants with a normal waist-hip ratio, 71 (93.4%) consumed fruits and vegetables, while 5 (6.6%) did not.

3.3. Response Data on Beliefs and Perceptions about Fruits and Vegetable Intake

This sub-category of the research work covered some perceptions and beliefs of the particpants about fruits and vegetables intake (Table **7**).

Table 7: Participants who Thought Fruits are Bad due to the Sugar in them

Choice of Answer	Frequency (n= 157)	Percentage (%)
No	150	95.5
no idea	2	1.3
Oblivious	4	2.5
Yes	1	0.6
Total	157	100.0

The table reveals that the majority of respondents, 150 out of 157 (95.5%), did not believe fruits are harmful because of their sugar content. A small percentage, 4 participants (2.5%), were oblivious about the issue, while 2 respondents (1.3%) had no idea. Only 1 participant (0.6%) believed fruits are bad due to sugar. These results suggest a strong general awareness that the natural sugars in fruits are not harmful, though a minor portion of participants remained uncertain or misinformed.

4. DISCUSSION

4.1. Socio-demographic Data of Participants Relating Their Fruit and Vegetable Consumption

A total of 157 participants were enrolled in the study. The majority of participants fell within the age range of 30 to 39 years, a trend that can plausibly be attributed to the fact that this age group represents a significant proportion of the working population in Ghana. This finding aligns with previous studies conducted in sub-Saharan Africa, which reported a similar age distribution among working populations [12, 13]. The observed age pattern may also reflect the employment structure within the banking sector, where middle-aged adults predominantly occupy professional roles, often balancing work demands with limited opportunities for healthy eating habits [14].

Regarding gender distribution, both male and female participants were included; however, males constituted the majority. This disparity may be explained by the higher representation of male employees within the banking sector compared to their female counterparts, consistent with findings from studies in Nigeria and Kenya [14, 15]. Participants represented diverse ethnic groups, including Ewes, Akans, Guans, Ga-Adangbes, and Fantes, with Ewes being the predominant group. This finding is consistent with the geographical context of the study, as the research was conducted in the Ho Municipality, a region predominantly inhabited by Ewes, corroborating earlier demographic surveys in the region [16].

Educational attainment among respondents was notably high, with a greater proportion having completed tertiary education, suggesting a population capable of reading, writing, and comprehending basic information, as similarly reported in studies on urban workforce demographics in Ghana [17, 18]. Furthermore, the majority of participants reported being single, indicating smaller household sizes and, consequently, reduced financial burdens and dependency, a pattern also noted in previous sociological studies [19]. With respect to religious affiliation, Christianity was the most represented religion, surpassing both Islam and traditional belief systems. This observation aligns with the widespread prevalence of Christianity in the study area compared to the other two religious groups, consistent with national census reports [16].

4.2. Waist-Hip Ratio and Gender

Waist to hip ratio (W-H-R) is a measure of fat distribution around the hips used to assess central obesity and the risk of cardiovascular diseases. A cross-tabulation analysis was performed to determine the association between W-H-R and gender, examining the relationship between the two variables. Out of a total of 157 participants, 111 were males, representing the highest frequency among respondents. Of these males, 79 were identified as being at risk of cardiovascular diseases due to waist-hip ratios exceeding the World Health Organization (WHO) guideline threshold of 0.9, while 32 fell within the normal range and were not considered at risk. This observation may be attributed to the higher male enrollment in the study and the well-documented tendency for males to exhibit more central fat distribution compared to females [20-22].

The study revealed that the relationship between gender and waist to hip ratio was statistically insignificant, with a p-value of 0.11 ($p > 0.05$). This finding aligns with previous studies indicating that while men are more likely to exhibit central obesity, the gender-based variation often does not reach statistical significance, particularly in community-based samples [22, 23]. Research has consistently demonstrated that W-H-R tends to increase with age and is influenced by patterns of fat distribution in both males and females [23, 24]. However, the male propensity for central adiposity remains more pronounced, as supported by findings from large-scale epidemiological studies [25].

4.3. Fruits and Vegetables Intake, Number of Times in a Day, and Serving Sizes

The majority of respondents, comprising 95.5% of the study population, reported consuming fruits and vegetables. However, despite this high prevalence of intake, only a small proportion met the recommended daily requirement for fruits and vegetables. The results indicated that most participants consumed fruits and vegetables 1–2 times per day, with corresponding serving sizes of 1–2 portions. This suggests that bankers do not regularly achieve the recommended daily intake of 4–5 servings of fruits and vegetables, as stipulated by health guidelines [26, 27]. This finding aligns with previous research, such as the WHO's surveillance on chronic disease risk factors across several African countries, which indicated that fruit and vegetable intake levels fell below the recommended threshold of 400 grams per person per day [10, 28].

The low fruit and vegetable intake observed in this study may be attributed to common barriers faced by working populations, including time constraints and

financial limitations. As reported in previous studies, busy work schedules often prevent individuals from preparing or accessing healthy meals, while the perceived high cost of fresh produce further reduces adherence to dietary recommendations [29, 30]. Moreover, workplace environments that lack access to healthy food options exacerbate these challenges, underscoring the need for comprehensive wellness programmes within corporate settings.

These findings have significant public health implications. Inadequate fruit and vegetable intake is associated with increased risks of chronic diseases, including cardiovascular conditions and type 2 diabetes. Thus, workplace wellness programmes focusing on dietary education, subsidised healthy food options, and awareness campaigns could play a pivotal role in improving dietary habits among working populations. Such initiatives have proven effective in other settings, demonstrating improvements in both dietary adherence and overall health outcomes [31].

4.4. Waist-Hip Ratio and Fruits and Vegetable Consumption

The consumption of fruits, vegetables, whole grains, and lean meats has been widely reported to support weight management and reduce the risk of chronic diseases. A cross-tabulation analysis conducted to explore the relationship between waist-hip ratio (W-H-R) and fruit and vegetable consumption revealed that consuming fruits and vegetables alone, or in insufficient quantities, does not significantly reduce the likelihood of being at risk for cardiovascular diseases. The analysis showed a p-value of 0.212, which is greater than the significance threshold ($p<0.05$), indicating a statistically insignificant relationship [32].

Among the 150 participants who reported consuming fruits and vegetables, 79 were still categorised as being at risk for cardiovascular diseases based on their waist-hip ratios. This finding aligns with previous studies suggesting that while fruit and vegetable intake is beneficial, its protective effects are more pronounced when the daily recommended intake of 4–5 servings, as per WHO guidelines, is consistently met [33, 34]. For instance, Boeing *et al*. (2012) highlighted that insufficient intake fails to achieve the metabolic benefits necessary for cardiovascular protection [32]. Similarly, a systematic review by Aune *et al*. (2017) indicated a dose-dependent relationship, where higher consumption corresponded with lower cardiovascular risk [33].

However, contrasting evidence from the PURE study by Miller *et al*. (2017) suggests that even moderate fruit and vegetable intake, below the WHO threshold, can still offer significant protective effects, particularly in low-income settings [35]. This discrepancy may be attributed to variations in dietary patterns, access to fresh produce, and overall lifestyle factors across populations [36]. Therefore, while the current study emphasises the importance of adequate intake, it also highlights the need for context-specific recommendations tailored to socio-economic and occupational environments.

4.5. Beliefs and Misperceptions about Fruit and Vegetable Intake

The majority of participants, constituting 56.1% of the respondents, believed that the sugar present in fruits is natural and healthy, asserting that such sugars do not elevate blood glucose levels. This perception may be attributed to the fact that most participants had attained tertiary education, equipping them with a basic understanding of the nutritional significance of fruits and vegetables. However, despite their general awareness, approximately 66.9% of respondents lacked specific knowledge regarding why fruit consumption does not contribute to the development of diabetes mellitus. This gap could be indicative of a nutrition knowledge deficit among the respondents [37].

The findings of the present study align with previous research indicating that while individuals often recognise the importance of fruit and vegetable consumption, their understanding of its role in preventing and managing chronic conditions, such as diabetes and cardiovascular diseases, remains limited [38]. Similarly, evidence from a systematic review by Oyebode *et al*. (2014) confirmed that while educational attainment positively correlates with fruit and vegetable consumption, it does not necessarily translate into accurate health beliefs regarding disease prevention [39].

Conversely, some studies have highlighted that targeted nutrition education can significantly enhance understanding and correct misperceptions. Thus, the current study underscores the need for more comprehensive nutrition education programmes to bridge the gap between general knowledge and specific health-related understanding.

5. CONCLUSION

This study provides insights into the socio-demographic characteristics, waist-hip ratio, fruit and vegetable

consumption, and health perceptions among a working population in Ghana. The majority of participants were aged 30 to 39 years, representing the core working population, with males predominating, likely due to gender disparities in the banking sector. While most participants reported consuming fruits and vegetables, only a few met the recommended 4–5 daily servings, consistent with other studies highlighting barriers such as time constraints, high costs, and limited access.

The waist-hip ratio analysis revealed that fruit and vegetable consumption alone, without sufficient servings, did not significantly reduce cardiovascular risk, emphasising the importance of adequate intake for health benefits. Additionally, misconceptions about fruit sugar and diabetes were prevalent, indicating gaps in nutrition knowledge despite high education levels. This underscores the need for workplace wellness programmes promoting healthy eating, affordable access to fruits and vegetables, and targeted nutrition education. The limitations of the study include self-reported data and the lack of detailed dietary intake measurements. Future research should adopt objective dietary assessments and longitudinal designs to validate findings and guide more effective health interventions.

5.1. Study Limitations

Despite the valuable insights provided by this study, some limitations should be acknowledged. First, the reliance on self-reported data introduces the potential for recall bias and social desirability bias, as participants may have over- or under-reported their fruit and vegetable intake. Second, the absence of detailed dietary intake measurements, such as portion sizes and frequency, limits the ability to comprehensively assess adherence to dietary guidelines. Furthermore, the cross-sectional design of the study precludes causal inferences between fruit and vegetable intake and health outcomes. Future studies should incorporate objective dietary assessment methods, longitudinal designs, and more diverse participant samples to validate findings and provide more robust insights.

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ETHICAL APPROVAL AND CONSENT TO PARTICIPATE

Ethical review was sought from the University of Health and Allied Sciences, Research and Ethics Committee (UHAS-REC) of the Institute of Health Research. Following approval of the research, the institute issued the certificate number UHAS-REC A.1[79] 22-23.

CONSENT FOR PUBLICATION

The participants gave their consent for their data to be used for publication by signing a consent form.

AVAILABILITY OF DATA AND MATERIALS

Additional information or data related to the study shall be made available on request.

COMPETING INTEREST

The authors declare no competing interest from conception to finalisation of the study.

FUNDING

The authors declare that no funding or grant was obtained for the study.

AUTHORS CONTRIBUTION

GA1 and GA2 developed the research concept and designed the methodology, data analysis and interpretation and preparation of the manuscript for publication. GA1 carried out the data collection and analysis whilst GA2 provided critical comments on the methodology, reviewed and revised the final manuscript. All authors read and approved the final manuscript before submission for publication.

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