Evaluation of Dietary Habits and Anthropometric Indices of Administrative Staff in UNTH, Ituku-Ozalla Enugu

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ABSTRACT

Anthropometric measurements indirectly indicate present or past nutrition and may be markers of future ill-health. Unhealthy eating habits are among the leading risk factors for many diseases.

Objectives: The study evaluated the anthropometric indices and the dietary habits of administrative staff in the University of Nigeria Teaching Hospital, Ituku-ozalla, Enugu state.

Materials and Methods: The study design used in this research was cross-sectional design. A multi-stage sampling technique was used to obtain the representative sample of target population. A total of 230 respondents were identified for the study which was gotten by 15% of the total population with the addition of attrition which is 10%. In the first stage, administrative staffs in University of Nigeria Teaching Hospital (UNTH) Enugu were purposefully selected as the study location. In the second stage, 15 administrative departments in UNTH were randomly selected by balloting without replacement. In the third stage, 15 administrative staff was randomly selected from each department. A structured, validated questionnaire used to evaluate the demographic characteristics, dietary practices and anthropometric measures such as weight, height, hip and waist circumferences of the respondents with the use of appropriate instruments (Camry bathe scale, heightometer, non-stretchable tape) were used in data collection. The data were analyzed with Statistical Product and Service Solutions (SPSS), version 21.0. Descriptive statistics was used to analyze them while Pearson correlation was used to determine the relationship between variables. A p-value of less than 0.05 (<0.05) was considered statistically significant.

Results: Most (90.9%) respondents worked between 6-8 hours daily while 49.1% earned between   100,000 - N150,000 monthly. On the dietary habit, 58.7% skipped meals on a weekly basis. However, 26.1% who skipped meals was because of the busy nature of their work while 23.9% skipped meals because they did not feel like eating early. Nature of work affected the food choices of 39.6% of the respondents usually through lack of time to eat (23.9%). On the anthropometric indices according to the BMI ranges, 44.3% had obesity stage 1 while 31.3% were overweight. For waist-hip-ratio, 61.7% were at high risk, 23.5% were at low risk while 14.8 were moderate.

Conclusion: The dietary habits and the prevalence of obesity and overweight among the administrative staff is a pointer to the inadequacy of meal consumption. Therefore administrative workers should be given proper education in order to curtail the increasing prevalence of obesity and overweight among them.

Keywords: : Anthropometric indices, Dietary habits, Administrative staff, Obesity

INTRODUCTION

Dietary habits refer to why and how people eat, which foods they eat, with whom they eat it with as well as the ways people obtain, store and discard foods (1). Unhealthy eating habits are among the leading risk factors for many nutritionally related non-communicable diseases globally (2). These factors may lead to altered anthropometric indices which are precursors of health conditions such as cardiovascular diseases, diabetes and other types of cancer (2). An optimized nutritional status can sustain work output and concentration over extended periods of high physical and mental stress (as typically found in most health facilities in developing countries) and has been linked to an

increased level of functionality in the workplace (3). However, studies suggest that the administrative staff exhibit an unhealthy lifestyle stemming from long working hours, shift work, availability of fast food, eating in responses to stress as a maladaptive coping convenience, environmental factors and nature of food outside the working hours all of which negatively affect productivity (4,5). Many administrative staff find it difficult to eat in the workplace, because of their long working hours attributing to the increasing prevalence of Non-communicable diseases (NCDs) and the emergence of hemorrhagic infections like the Covid-19 and tuberculosis decrease in number of specialist manpower and a dwindling economy (6). According to the reports from a National survey, the prevalence of obesity was 9.0% and 5.0% in Nigeria adult females and males respectively (6). These poor nutritional practices can affect their ability to work effectively and also increase the risk of succumbing to work hazards and occupational illness (6) as a result of inadequate food intake and poor dietary habits. During their work time administrative staff maybe far from places where they can access nutritious food and drinks. As a result, they remain hungry after work or make-do with snacks and food readily available to them. Poor access to adequate meals and/or rigid working hours can lead to poor dietary habits.

Anthropometry is the study of the measurement of the human body in terms of the dimensions of bone, muscle, and adipose (fat) tissue (7). In a broader term, the field of anthropometry encompasses a variety of human body measurements including weight, stature (standing height), recumbent length, skinfold thicknesses, circumferences (head, waist, limb, etc.), limb lengths, and breadths (shoulder, wrist, etc.) (8). It has been demonstrated that anthropometric measurements are highly reliable in determining nutritional status in comparison with other, more sophisticated methods (hydro-densitometry, dilution techniques, radio-labeled potassium and electronic bio-impedance), the use of which is restricted by their complexity and cost (9). The purpose of anthropometry assessment is to collect high quality body measurement data using standardized examination procedures and calibrated equipment. Body Mass Index values are calculated using measured height and weight values as follows: weight (kilograms)/height (meters^2). Body Mass Index criteria are used to screen for weight categories: underweight (BMI values < 18.5), normal or desirable weight (BMI values 18.5-24.9), overweight (BMI values 25.0-29.9), obese-Class I (BMI values 30.0-34.9), obese-Class II (BMI values 35.0-39.9) and extremely obese (BMI values $\geq$40.0) (10). BMI results are used to track weight trends in a population. Skinfold thickness and circumference measures assess subcutaneous and visceral fat tissue (11). Waist circumference data are widely used to assess cardiovascular disease risk. Specifically, individuals who have large deposits of abdominal fat tissue are at increased risk for hypertension, adult-onset diabetes mellitus, cardiovascular disease, gallstones, arthritis, and some forms of cancers such as multiple myeloma and colorectal (12).These poor dietary practices can lead to altered anthropometric indices, which serve as precursors to serious health conditions such as cardiovascular disease, diabetes, hypertension, and various forms of cancer.

Thus, this study will provide valuable insights into the dietary habits and anthropometric indices of administrative staff in the University of Nigeria Teaching Hospital Ituku-ozalla, shedding light on the potential health risks they face. By understanding these factors, interventions can be developed to promote healthier eating habits, improve nutritional status, and ultimately enhance productivity and reduce the risk of chronic diseases among this vital workforce.

MATERIALS AND METHODS

Study area: The study was conducted among administrative workers in the University of Nigeria Teaching Hospital, Ituku-ozalla. The University of Nigeria Teaching Hospital, Ituku-ozalla is made up of 41 main departments in the hospital with three out – posts – Comprehensive Health Centers at Obukpa in Nsukka Local Government area, Enugu State, Abagana in Njikoka Local Government Area of Anambra State and Isuochi in Abia State. The hospital is made up of canteens situated at various points in the environment. Also, there are food vendors in the different departments. The staff strength of the administrative department is 1407 excluding Ad-hoc and locum administrative staff. The working hours of these staff is about 5-10 hours daily.

Study design: The study was carried out using a cross-sectional study design.

Study Population: Study subjects included both genders of administrative staff in UNTH. The total

number of the administrative staff was 1,407 staff with exclusion of Ad-hoc and Locum administrative staff.

Sample Size determination: A sample size comprising 15% of the total number was selected for the study which gave 211 respondents before attrition was added. Sample size was rounded up to 230 to make up for drop outs and incorrectly filled questionnaire.

Sampling procedure: A multi-stage sampling technique was used to select the study sample. In the first stage, administrative staffs in University of Nigeria Teaching Hospital (UNTH) Enugu were purposively selected as the study location. In the second stage, 15 administrative Departments in UNTH were randomly selected by balloting without replacement. In the third stage, 15 administrative staff were randomly selected from each department. Only willing respondents were recruited to participate in the study while excluded respondents were all clinical staff, administrative staff that were unwilling and cannot be measured while standing.

Ethical consideration: Ethical clearance was obtained from the Health Research and Ethical committee of University of Nigeria Teaching Hospital (UNTH). The Ethical approval number or reference is NHREC/05/01/2008B-FWA00002458-1RB00002323.'

Methods of data collection
Informed consent: The consent of the respondents was sought for using an informed consent form, after detailed explanation of the study protocol.

Questionnaire: A structured questionnaire was constructed and then validated by dietitians in the Department of Nutrition and Dietetics, UNTH. A pre-test was carried out in a pilot study on ten (10) randomly selected administrative staffs from different units. However, this was not part of the final study carried out using the 230 respondents. The questionnaire was used to assess the respondent's socio-economic background, dietary pattern, number of work hours and lifestyle characteristics, while anthropometric measures were used to assess the anthropometric indices.

Anthropometry Measurements: Anthropometric measurements which included weight, height, waist and hip circumferences of the respondents were taken as follows:

Weight and height measurement: A Camry digital bath weight scale was used to measure respondents who were able to stand. Respondents were measured to the nearest 0.1kg with them putting on light clothing, standing barefooted on the scale with head pointing straight (13). Heights were measured to the nearest 0.1centimeter (cm) using a locally made heightometer. Respondents were made to stand erect, barefooted, hands hanging by the sides. The height was recorded to the nearest 0.1cm (13).
Waist and Hip circumference measurements: The waist circumference was taken to the nearest 0.1cm using a non-stretchable measuring tape while the subject stood in erect posture. Measurement was taken at the midpoint between the lower margin of the last palpable rib and the top of the iliac crest (the top of the hip bone) as reported by WHO (14). Hip measurement of the respondents was taken with the use of a non-stretchable tape while they were made to stand erect with arms at the sides, feet together and wearing light dressing around the hip. The tape was placed around the buttocks in a horizontal plane without compressing the skin. The measurement was recorded to the nearest 0.1cm as reported by WHO (14).

DATA ANALYSIS
Body Mass Index (BMI): BMI was calculated as weight in kilograms, divided by height in meter squared (kg/m^2). On this basis, body mass index (BMI) was graded as: Underweight ($<$ 18.50), Normal (18.50-24.90), Overweight (25.0-29.90), Obesity ($>$30 kg/m^2). Waist/hip ratio (WHR) was calculated by dividing the waist measurement (in cm) by the hip measurement (in cm). WHR $\geq$ 0.86 for females and $\geq$ 0.90 for males were considered high health risk while lesser values were regarded as normal (14).

Statistical Analysis
The data obtained were analyzed using the Statistical Package for Social Sciences (SPSS) (version 22.0) which was performed using descriptive and inferential statistical methods. Descriptive statistics such as frequencies, percentages were used to analyze socio-demographic characteristics, dietary habits, and anthropometric data. Pearson correlation was used to determine the relationship between dietary habits and anthropometric indices. A p-value of less than 0.05 ($<$0.05) was considered statistically significant.

RESULTS

22.6% were aged 26-33 years while 3.9% were aged 18-25 years. More than half (57.4%) were married, 30.4% were Table 1 revealed the socioeconomic characteristics of the respondents. More than half (60.4%) were males while 39.6% were females. A total of 40.9% were aged greater than 40 years, 32.6% were aged 34-41 years, single, 6.5% were widowed while 5.7% were either separated or divorced. A total of 13.9% were in Clinic, Establishment, and Appraisal, 15.7% were in CMAC, 10.0% were in Nutrition and dietetics, 8.7% were in pharmacy, 8.3% were in central store, 4.8% were in Human resources (Record unit) while 1.7%

Table 1: The socioeconomic characteristics of the respondents

Socioeconomic Variable	Frequency	Percentage
Sex		
Male	91	39.6
Female	139	60.4
Total	230	100.0
Age (Year)		
18-25 Years	9	3.9
26-33 Years	52	22.6
34-41 Years	75	32.6
Greater Than 41 Years	94	40.9
Total	230	100.0
Marital Status		
Single	70	30.4
Married	132	57.4
Widowed	15	6.5
Separated/Divorced	13	5.7
Total	230	100.0
Current Department		
Human Resources (Records Unit)	11	4.8
Hr (Administration)	4	1.7
Central Store	19	8.3
Nutrition And Dietetics	23	10.0
Works	17	7.4
Pharmacy	20	8.7
Appraisal	32	13.9
Establishment	32	13.9
Cmac	36	15.7
Clinic	32	13.9
Dental Technology	4	1.7
Total	230	100.0
Hours Spent At Work		
<6 Hours	4	1.7
6-8 Hours	209	90.9
9-11 Hours	17	7.4
Total	230	100.0
Monthly Income		
<N100,000	69	30.0
N100,000 – N150,000	113	49.1
N150,000- N200,000	34	14.8
>N200,000	14	6.1
Total	230	100.0

and 1.7% were in dental technology and Human Resource (Administration) respectively. Hours spent at work were 6-8 hours (90.9%), 9-11hours (7.4%) and less than 6 hours (1.7%). A total of 49.1% earned N100.000 - N200.000, 30.0% earned less than N100.000, 14.8% earned N150,000 - N200,000 while 6.1% earned less than N200,000 monthly.

Table 2 revealed the dietary habit of the respondents. More than half (58.7%) of the respondents skipped meals while 41.3% did not skip meals. Meals mostly skipped was breakfast (26.1%), followed by lunch (24.8%) then supper (4.3%) while 1.7% skipped breakfast and lunch and 1.7% skipped all the meals in a day. The reasons for skipping meals were busy nature of the work (26.1%), not feeling like eating (23.9%), fasting (3.0%) and lack of what to eat (1.7%). Food access

Table 2: The dietary habits of the respondents

Dietary Habit	Frequency	Percentage
Meal Skipping		
Yes	135	58.7
No	95	41.3
Total	230	100.0
Meals Skipped		
Breakfast	60	26.1
Lunch	57	24.8
Supper	10	4.3
Breakfast And Lunch	4	1.7
Breakfast, Lunch And Supper	4	1.7
Total	**135**	58.6
Reasons For Skipping Meals		
I Don't Feel Like Eating	55	23.9
Busy Nature Of Work	60	26.1
I Don't Have Money	4	1.7
Fasting	7	3.0
I don't feel like eating & Watching Weight	2	0.9
Busy Nature Of Work & lack of Money	1	0.4
If I Don't See What To Eat	4	1.7
Total	**133**	57.8
Food Access		
Home	142	61.7
Call Food Duty	6	2.6
Hospital Canteen	25	10.9
Private Food Vendors	15	6.5
Home & private food vendors	37	16.1
Home & hospital canteen	5	2.2
Total	230	100.0
Work Effect On Food Choices		
Yes	91	39.6
No	139	60.4
Total	**230**	**100.0**
If Yes How		
No Time To Cook	55	23.9
What Is Available In The Office	31	13.5
Amount Of Work Done	1	0.4
Choice Of What Is Available	2	0.9
No Specific Reason	2	0.9
Total	**91**	39.6

was from home (61.7%), hospital canteen (10.6%), home and private food vendors (16.1%), private food vendors (6.5%), home and hospital canteen (2.2%) and call food (2.6%). A total of 60.4% food choices were not affected by work while 39.6% were affected. Some of the reasons for the effects were time to cook (23.9%), what food is currently available (13.5%) and personal choice of what is available (0.9%).

Table 3 revealed the dietary habits of the respondents. More than half (54.3%) ate less than three meals per day, 23.5% ate more than three meals per day, while 22.2% ate three meals per day. Some of the factors considered when choosing food were availability (37.4%), preference (20.9%), preference and availability (10.9%), all the factors (4.8%), food cost (8.3%), religion and culture (3.0%), health condition (1.3%), quality (1.7%), taste and

Table 3: Dietary Habits and Preferences of Respondents

Dietary Habit	Frequency	Percentage
Number Of Meals Eaten Per Day		
< 3 Times	125	54.3
3 Times	51	22.2
More Than Three Times	54	23.5
Total	**230**	**100.0**
Factors To Consider When Choosing Foods		
Food Cost	19	8.3
Religion And Culture	7	3.0
Preference	48	20.9
Availability	86	37.4
Others	2	0.9
Food cost and availability	25	10.9
Preference And Availability	9	3.9
All The Factors	11	4.8
Health Condition	3	1.3
1&3	2	0.9
1&3&4	10	4.3
Quality	4	1.7
Taste And Neatness	4	1.7
Total	**230**	**100.0**
Appetite Rating		
Good	179	77.8
Fair	49	21.3
Poor	2	0.9
Total	**230**	**100.0**
Preferred Method Of Food Preparation		
Boiling	164	71.3
Frying	17	7.4
Baking	5	2.2
Roasting	2	0.9
Steaming	3	1.3
Any Of the Methods	7	3.0
Boiling and roasting	5	2.2
Boiling and frying	22	9.6
Boiling and steaming	5	2.2
Total	**230**	**100.0**
Duration Of Food Preparation		
<30 Minutes	17	7.4
30 Minutes - 1 Hour	144	62.6
1-2 Hours	58	25.2
> 2hours	11	4.8
Total	**230**	**100.0**

neatness (1.7%). On appetite rating, majority (77.8%) had good appetite, 21.3% had fair appetite while 0.9% had poor appetite. Preferred method of food preparation were boiling (71.3%), boiling and frying (9.6%), frying (7.4%), any of the methods (3.0%). Duration of food preparation were 30minutes to 1 hour (62.6%), 1-2 hours (25.2%), less than 30 minutes (7.4%) and more than 2 hours (4.8%).

Table 4 presents the frequency of dietary habits of the respondents. It showed that 80.0% prepare their meals daily (52.2%), fruit intake daily (25.7%), inclusion of vegetables in meals was practiced by 89.6%. A total of 50.4% ate less meals than required and 57.4% took meals with soft drinks. More than half (63.0%) took other alcoholic beverages while 30.9% took beer.

Table 5 presents the anthropometric indices of the respondents. It showed that 44.3% had obesity stage 1, 31.3% were overweight, 18.7% were normal,

Table 4: Frequency of dietary habits among respondents

Dietary habits	Total (Percentage)	Daily	>3 times per week	< 3 times per week
Do you prepare your meals				
Yes	184(80.0)	120(52.2)	51(22.2)	20(8.7)
No	45(20.0)			
Fruit intake				
Yes	181(78.7)	59(25.7)	78(3.9)	44(19.1)
No	49(21.3)			
Inclusion of vegetables in meals				
Yes	206(89.6)	93(40.4)	71(30.9)	43(18.7)
No	24(10.4)			
Eating of less meal				
Yes	116(50.4)	43(18.7)	31(13.5)	42(18.2)
No	114(49.6)			
Taking meals with soft drinks				
Yes	132(57.4)	62(26.9)	40(17.4)	30(13.0)
No	98(42.6)			
Other alcoholic beverage intake				
Yes	145(63.0)	53(23.0)	46(20.0)	33(14.3)
No	85(36.9)			
Beer				
Yes	71(30.9)	1(0.4)	47(20.4)	23(10.0)
No	159(69.1)			

Table 5: The anthropometric indices of the respondents

Anthropometric Indices	Frequency	Percentage
Body Mass Index		
Normal	43	18.7
Overweight	72	31.3
Obese I	102	44.3
Obese I1	11	4.8
Obese 111	2	0.9
Total	**230**	**100.0**
Waist-Hip-Ratio		
Low Risk	54	23.5
Moderate Risk	34	14.8
High Risk	142	61.7
Total	**230**	**100.0**

while 4.8% had obesity class 11. For waist-hip-ratio, 61.7% were at high risk, 23.5% were at low risk while 14.8 had moderate risk.

Table 6 presents the relationship between anthropometric indices and dietary habits of the respondents. There was a significant (P < 0.05) relationship between food access and BMI of the respondents. Meal preparation was also significantly related to BMI.

DISCUSSION
In this study, the socioeconomic and socio-demographic status revealed a striking nature of work among the respondents especially in the number of hours spent at work. Working hours play a vital role in all kinds of organizations in deciding health, productivity and commitment of the employees. Hence, working hour should be normal and it should neither be too long nor too short in order to ensure employees' sound health, better productivity and significant happiness in the work life (15). In this present study, most of the administrative work for 6-8 hours daily due to the workload. This could have an effect on their

Table 6: The relationship between anthropometric indices and dietary habits of the respondents

		BMI	WHR	Meal skipping	Freq. Of meals	Food access	Meal preparation	Daily fruits intake	Daily vegetable intake	Intake of soft drinks
BMI	X^2	1	.315**	-.091	-.031	.167*	.150*	.042	.031	.005
	Sig.		.000	.170	.639	**.011**	**.023**	.523	.636	.934
	N	230	230	230	230	230	230	230	230	230
WHR	X^2	.315**	1	-.025	-.010	.089	-.014	.039	.141*	.009
	Sig.	.000		.705	.879	.178	.836	.554	.032	.897
	N	230	230	230	230	230	230	230	230	230
Meal skipping	X^2	-.091	-.025	1	.730**	-.038	-.058	-.199**	-.113	-.086
	Sig.	.170	.705		.000	.564	.378	.002	.087	.195
	N	230	230	230	230	230	230	230	230	230
Freq. Of meals	X^2	-.031	-.010	.730**	1	.015	-.064	-.153*	-.079	-.119
	Sig.	.639	.879	.000		.826	.335**	.021	.233	.071
	N	230	230	230	230	230	230	230	230	230
Food access	X^2	.167*	.089	-.038	.015	1	.226**	-.073	-.048	-.145*
	Sig.	**.011**	.178	.564	.826		.001	.271	.469	.027
	N	230	230	230	230	230	230	230	230	230
Meal preparation	X^2	.150*	-.014	-.058	-.064	.226**	1	.019	.266**	-.034
	Sig.	**.023**	.836	.378	.335	.001		.772	.000	.613
	N	230	230	230	230	230	230	230	230	230
Fruit intake	X^2	.042	.039	-.199	-.153*	-.073	.019	1	.448**	.188**
	Sig.	.523	.554	.002	.021	.271	.772		.000	.004
	N	230	230	230	230	230	230	230	230	230
Vegetable intake	X^2	.031	.141*	-.113	-.079	-.048	.266**	.448**	1	.188**
	Sig.	.636	.032	.087	.233	.469	.000	.000		.004
	N	230	230	230	230	230	230	230	230	230
Soft drinks intake	X^2	.005	.009	-.086	-.119	-.145*	-.034	.188**	.188**	1
	Sig.	.934	.897	.195	.071	.027	.613	.004	.004	
	N	230	230	230	230	230	230	230	230	230

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

efficiency. Studies conducted by Ndambo et al., (16); Tancinco et al., (17) agreed that when teaching workload is high then teacher's performance may be adversely affected. Different organizations in Nigeria follow different types of working hour despite strict rules and regulations regarding working hour by the constitution (18). Though often times administrative staffs work more than 8 hours on special occasions. Hence, it is paramount all government organizations follow the rules of working hour established in the constitution that says that working hour should not exceed eight hours. Age plays a role in describing how an individual changes over time and subsequently may affect how performance changes over time. A finding by Niessen et al., (19) fits with other research (20) on age in performance capabilities: older workers require longer time to adapt or learn, and to reach comparable levels of performance to younger persons. On the issue of marital status, 57.4% of the administrative staff were married. On the issue of marital status, 57.4% of the administrative staff were married. Siyabanya et al., (2) observed that marital status affects the self-efficacy which will lead to high job performance. Though the relationship between marital status and job satisfaction was not accessed in this study but related study by Smedley et al., (21) showed that unmarried employees can perform more efficiently than married employees since their commitment towards their family and other circumstances are considerably less when compared to the married employees.

Based on the dietary practices of the respondents, most of the administrative staff skipped meals especially breakfast due to the nature of their work and time to prepare meals. This may point that they may not have the time and resources for preparing nutritious foods at home. Even when they do prepare the meals, their busy schedule may not allow them to comfortably partake of the meal. Betts et al., (22) noted that breakfast is the most important meal of the day that replenishes the body and brain after a night's fast. Skipping breakfast by most of the respondents may tend to make them over eat at the next meal. The implication of this is that as people who work at regular hours, regular eating and exercise habits are difficult to maintain. Consequently, this is in line with the observation of (23) among health workers in Saudi Arabia. This implies that administrative workers may adopt several unhealthy dietary habits at work and beyond ranging from excessive intake of confectioneries and unhealthy eating timing. There is an association between these dietary habits and the development of serious health conditions, including metabolic syndrome, type 2 diabetes, an elevated risk of cardiovascular diseases, and obesity (24).

Despite the numerous health benefits associated with regular fruit consumption, only 25.7% of respondents reported eating fruits daily, a notably low percentage. This finding aligns with a study by Fadupin et al., (25) in which only 31.2% of participants, who were teachers, regularly consumed fruits. Research indicates that a high intake of fruits is not only crucial for a balanced diet but also plays a significant role in reducing the risk of degenerative diseases such as obesity, cancer, heart disease, cataracts, and issues related to the immune system and brain function (25). World Health Organization recommends about 400g of fruits and vegetables (5 servings) per day. The percentage of participants that eats fruits daily could be attributed to the unavailability of choice fruits and vegetables in the local market for those who prepare their meals at home and the fact that fruits and vegetables do not form part of the available foods for those who rely on food vendors and hospital canteen. The result of this study revealed that less than two- third (63.0%) of the staff drank beer. This high rate of alcohol consumption seen in this study may be attributed to the lack of knowledge of the negative consequences of excess alcohol consumption. Alcohol abuse is responsible for occupational and other health consequences that make their consumer vulnerable to developing psychological distress (26). Excessive alcohol intake is linked to weight gain and obesity especially abdominal obesity, both of which are risk factors for high blood pressure (26). The rates of Overweight/Obesity as determined by abnormal values of Body Mass Index (BMI), Waist Circumference (WC) and Waist-Hip Ratio (WHR) were used in this study. These indices confirm the presence of double burden of malnutrition among the staff in the hospital. Overweight was at 31.3% while stage 1 obesity was at 44.3%. The highest rate of overweight and obesity was observed with BMI. A contributing factor to overweight/Obesity may be attributed to the fact that UNTH is located few kilometers from an urban area where there is high intake of western diet and change in local dietary patterns due to urbanization is common (27).

CONCLUSION

This study found a significant number of administrative staff to be overweight and obese. Despite their relatively easy access to healthcare and the expectation that they would be knowledgeable

about maintaining good health was notably poor. Many workers had inadequate intake of fruits and vegetables and a high consumption of meals prepared outside the home, suggesting they may be consuming excess macronutrients linked to various chronic diseases associated with overweight and obesity. Therefore, it is essential to provide proper nutrition education and counselling to administrative workers to address the rising prevalence of obesity and overweight among them.

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Declaration of conflict of interest

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