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Prevalence of Overweight and Obesity among Staff of the Neuropsychiatric Hospital Aro, Abeokuta

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Abstract

Background: Overweight and obesity are increasingly prevalent among healthcare professionals, raising concerns about occupational health, productivity, and long-term well-being.

Objectives of the Study: This study assessed the prevalence, associated risk factors, and correlates of overweight and obesity among staff of the Neuropsychiatric Hospital, Aro, Abeokuta, Nigeria.

Methodology: A descriptive cross-sectional study design was employed. A total of 282 apparently healthy hospital staff were recruited using Cochran's formula for proportions. Data were collected using a semi-structured questionnaire on socio-demographics, lifestyle, and dietary habits, alongside anthropometric measurements including weight, height, body mass index (BMI), and waist circumference. Descriptive statistics summarized baseline characteristics, while chi-square tests, t-tests, ANOVA, and correlation analysis were used to examine associations between overweight/obesity and risk factors. Statistical significance was set at $p < 0.05$.

Results: Of the 282 respondents, 45.4% were male and 54.6% were female, with a mean age of 39.1 ± 9.15 years. The prevalence of overweight was 39.7%, while obesity was 23.4%. Obesity was significantly more prevalent among female staff than male staff (19.0% vs. 7.0%, $p = 0.036$). Among respondents classified as obese, 69.7% were female and 30.3% were male ($p = 0.010$). Significant correlations were observed between BMI and age ($p = 0.022$), income ($p = 0.002$), and moderate-intensity physical activity ($p = 0.010$). Waist circumference revealed that 37.6% of respondents were at substantial risk of obesity-related complications. No significant associations were found with alcohol consumption, smoking, or meal skipping.

Conclusion: Overweight and obesity are highly prevalent among staff of the Neuropsychiatric Hospital, Aro, Abeokuta, with female gender, increasing age, higher income, and reduced physical activity identified as important risk factors. Workplace health promotion programs are essential to reduce the burden of obesity and its associated risks among healthcare workers.

Keywords: Overweight, Obesity, Prevalence, Risk factors, Hospital staff, Nigeria.

Highlight/Key Messages

- Nearly two-thirds (63.1%) of hospital staff were overweight or obese, with 39.7% overweight and 23.4% obese.
- Female staff had a significantly higher obesity prevalence than males (19.0% vs. 7.0%, $p = 0.036$), and constituted the majority of obese respondents (69.7%).
- Over half (58.9%) of staff had increased or substantial waist circumference risk.
- Sedentary behavior, meal skipping, and frequent snacking were common and associated with higher excess weight prevalence.

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Introduction

Overweight and obesity have become some of the most pressing public health challenges of the twenty-first century. The World Health Organization estimates that more than 1.9 billion adults are overweight, of whom over 650 million are obese, representing a threefold increase since 1975 (World Health Organization, 2021). These conditions are major risk factors for non-communicable diseases such as cardiovascular disorders, diabetes, musculoskeletal problems, and cancers, all of which contribute to diminished quality of life, reduced productivity, and premature mortality. In Sub-Saharan Africa, where infectious diseases have traditionally been the primary focus of health systems, the rapid emergence of obesity has created a dual burden of disease that strains healthcare capacity (Gouda *et al.*, 2019). Nigeria, the most populous country in Africa, has not been spared, with recent evidence showing that more than one-third of adults are overweight and between 10 and 20 percent are obese, with higher

prevalence in urban centers and among women (Chukwuonye *et al*., 2022).

Healthcare workers are often perceived as role models of healthy living, yet studies reveal they are not immune to the obesity epidemic. Their occupational demands frequently expose them to long and irregular working hours, shift duties, stress, and limited opportunities for physical activity, conditions that encourage unhealthy dietary habits and sedentary lifestyles (Joseph & Joseph, 2016). Healthcare staff commonly report irregular meal patterns, reliance on calorie-dense convenience foods, and difficulties in maintaining consistent exercise routines due to work schedules (Teng *et al*., 2025). This situation is paradoxical because those who are responsible for delivering health education and promoting lifestyle modification may themselves struggle with weight management, thereby weakening the credibility of preventive health messages.

Several studies within Nigeria and across Sub-Saharan Africa underscore the scale of the problem among healthcare professionals. Chukwuonye *et al*. (2022) reported national overweight and obesity prevalence of 27.6 percent and 14.5 percent respectively, while Bashir (2025) documented obesity prevalence of over 20 percent among selected workers in Kano State, with higher rates among women and non-clinical staff. Adelowo *et al*. (2025), in a systematic review of workforce health across Sub-Saharan Africa, concluded that cardiovascular risk factors, particularly obesity, were disproportionately high among healthcare workers. Globally, research has consistently demonstrated that occupational stress, night duties, and prolonged sedentary behavior significantly increase the risk of obesity among nurses and hospital staff (Phiri *et al*., 2014). In Nigeria, the picture is compounded by cultural norms that sometimes view overweight body sizes as a marker of affluence and wellbeing, reducing motivation for weight control (Styk *et al*., 2024). Diets are increasingly dominated by processed foods, sugary beverages, and fast foods, while traditional diets rich in vegetables, legumes, and whole grains are declining (Popkin *et al*., 2021).

Staff in such neuropsychiatric facilities face additional psychosocial stressors, including the emotional burden of caring for patients with severe mental illness, heightened exposure to workplace stress, and the stigma attached to psychiatric care. These factors may encourage coping mechanisms that negatively impact health, such as smoking, alcohol use, and poor dietary practices. Despite this, there is little evidence regarding the prevalence of overweight and obesity among staff in neuropsychiatric hospitals in Nigeria. Most available studies focus on the general population or healthcare workers in general hospitals, overlooking the unique occupational risks in psychiatric institutions (Søvold *et al*., 2021). Without accurate and setting-specific data, it is difficult to design effective wellness and preventive programs tailored to this workforce.

Protecting the health of healthcare workers is essential for sustaining effective service delivery, as overweight and obesity are linked to absenteeism, reduced productivity, and increased risk of chronic illnesses that can shorten career longevity. Furthermore, evidence generated on the specific circumstances of staff working in psychiatric care facilities provides a basis for designing tailored interventions such as workplace nutrition education, structured physical activity programs, and institutional policies that support healthier living.

Materials and Methods

Study Design

This study adopted a descriptive cross-sectional design aimed at determining the prevalence of overweight and obesity among staff of the Neuropsychiatric Hospital, Aro, Abeokuta, Nigeria. Cross-sectional studies are particularly suitable for estimating prevalence within defined populations and allow for simultaneous assessment of exposure and outcome variables (Wang & Cheng, 2020).

Study Area and Duration

The research was conducted at the Neuropsychiatric Hospital, Aro, Abeokuta, Ogun State, Nigeria, a federal tertiary institution that provides specialized mental health care, training, and research. The study was carried out over a period of six months, from January to June 2025.

Study Population

The study population comprised all categories of hospital staff, including clinical staff (doctors, nurses, pharmacists, laboratory scientists, and clinical psychologists) and non-clinical staff (administrative workers, security personnel, cleaners, and drivers). The inclusion criteria were all consenting staff members aged 18 years and above who were present during the study period. Exclusion criteria included pregnant women, individuals with physical disabilities that could distort anthropometric measurements, and those with documented chronic illnesses that directly affect body weight such as Cushing's syndrome and advanced renal disease.

Sample Size and Sampling Technique

Sample size was calculated using the formula for prevalence studies by Cochran:

$$n = \frac{Z^2 p q}{d^2}$$

Where n is the minimum sample size, Z is the standard normal deviation at 95% confidence interval (1.96), p is the estimated prevalence of obesity among healthcare workers from previous Nigerian studies (assumed at 21.1%) (Ehidiamhen *et al*., 2025), q = 1–p, and d is the degree of precision set at 0.05. This yielded a minimum sample size of 256. To account for non-response, 10% was added, resulting in a total of 282 participants. Stratified random sampling was employed to ensure representation of both clinical and non-clinical staff across departments.

Data Collection Instruments

Data were collected using a semi-structured, interviewer-administered questionnaire adapted from the World Health Organization STEPwise approach to surveillance (WHO, 2021). The questionnaire captured socio-demographic data, dietary patterns, physical activity levels, and medical history. Prior to data collection, the instrument was pretested on 20 staff in a different neuropsychiatric facility to ensure clarity and reliability, and necessary modifications were made.

Anthropometric Measurements

Anthropometric assessments followed WHO standardized procedures (WHO, 1995). Weight was measured using a calibrated digital scale (SECA, Germany) to the nearest 0.1 kg, with participants wearing light clothing and no shoes. Height was measured with a stadiometer to the nearest 0.1 cm, with participants standing erect on a flat surface, heels together, and head positioned in the Frankfort plane. Body Mass Index (BMI) was computed as weight in kilograms divided by the square of height in meters (kg/m^2). BMI categories were defined using WHO cut-offs: underweight (<18.5), normal weight (18.5–24.9),

overweight (25.0–29.9), and obesity (≥30.0). Waist circumference was measured at the midpoint between the lower margin of the last palpable rib and the top of the iliac crest using a non-stretchable tape, and central obesity was defined as ≥94 cm for men and ≥80 cm for women (Assefa *et al*., 2024).

Quality Control

All measuring instruments were calibrated daily, and measurements were taken twice by two trained research assistants to minimize inter-observer error. Discrepancies greater than 0.2 kg for weight and 0.5 cm for height were re-measured.

Data Analysis

Data were entered into IBM SPSS version 26 for analysis. Continuous variables were summarized as means and standard deviations, while categorical variables were presented as frequencies and percentages. Chi-square tests were used to determine associations between overweight/obesity and socio-demographic factors. Logistic regression analysis was conducted to identify independent predictors of overweight and obesity. A p-value of <0.05 was considered statistically significant.

Results

Socio-demographic Characteristics

A total of 271 staff members participated in the study, with a response rate of 95.4%. The mean age of respondents was 37.8 ± 9.4 years, ranging from 19 to 58 years. Females constituted a larger proportion of the study population (58.3%), while males accounted for 41.7%. Clinical staff represented 56.1% of participants, and non-clinical staff made up 43.9% (Table 1).

Table 1: Demographic Characteristics of Respondents

Characteristics	Frequency (N = 282)	Percentage (%)
Sex		
Male	128	45.4
Female	154	54.6
Age		
< 30 years	42	14.9
30 - 39 years	94	33.3
40 - 49 years	102	36.2
≥ 50 years	44	15.6
Mean±S.D (years)	39.10±9.15	
Ethnicity		
Yoruba	196	69.5
Igbo	53	18.8
Hausa	25	8.9
Others	8	2.8
Religion		
Islam	65	23.0
Christianity	208	73.8
Traditional	5	1.8
Others	4	1.4
Marital Status		
Single	70	24.8
Cohabiting	5	1.8
Married	196	69.5
Separated	9	3.2
Divorced	1	0.4
Widowed	1	0.4
Household Size		
< 3	73	25.9
3 – 4	135	47.9
5 – 6	64	22.7
> 7	10	3.5
Median (IQR)	4	2 - 5
Highest level of education completed		
Primary	2	0.7
Junior Secondary	2	0.7
Senior Secondary	29	10.3
Tertiary	144	51.1
Post-graduate	84	29.8
Vocational	21	7.4
Occupation		
Clinical Staff	106	37.6
Non-Clinical Staff	123	43.6
Casual Staff	37	13.1
Others	16	5.7
Average Monthly Income		
< N50,000	5	1.8
N50,000 - N100,000	68	24.1
> N100,000 - N200,000	102	36.2
> N200,000 - N500,000	72	25.5
Undisclosed	35	12.4
Median (IQR)	N160,000 (N100,000 - N250,000)	

Dietary Habits of Respondents

Most respondents reported consuming three meals per day (56.0%), while 40.4% consumed two meals. Meal skipping was common, with 75.5% reporting that they skipped meals. Among those who skipped meals, 34.3% did so every day, 60.1% occasionally, and 5.6% rarely. Lunch was the most frequently skipped meal (57.3%). Snacking was widely practiced, with 65.6% reporting occasional snacking and 21.6% snacking daily. Common snacks consumed included mixed snacks including fruits, carbonated drinks, ice-cream, chocolate bars, shawarma (39.3%), fruits (17.3%), and carbonated drinks (15.5%) (Table 2).

Table 2: Dietary Habits of Respondents

Variables	Frequency (N = 282)	Percentage (%)
Number of meals per day		
One	2	0.7
Two	114	40.4
Three	158	56.0
More than three	8	2.8
Meal skipping		
Yes	213	75.5
No	69	24.5
Frequency of meal skipping		
Everyday	73	34.3
Occasionally	128	60.1
Rarely	12	5.6
Meal mostly skipped		
Breakfast	66	32.0
Lunch	118	57.3
Dinner	14	6.8
Breakfast & Lunch	8	3.9
Reasons for meal skipping		
Financial constraints	58	28.3
Time constraints	79	38.5
Usual habit	44	21.5
Health reasons	9	4.4
Financial & time constraints	11	5.4
Time constraints & health reasons	1	0.5
Others	3	1.5
Snacking frequency		
Everyday	61	21.6
Occasionally	185	65.6
Rarely	36	12.8
Common snacks consumed		
Fruits	48	17.3
Savory snacks	36	13.0
Carbonated drinks	43	15.5
Mixed snacks (carbonated drinks, crackers, ice-cream, chocolate bars, shawarma)	20	7.2
Mixed snacks (fruits, carbonated drinks, ice-cream, chocolate bars, shawarma)	81	29.3
Mixed snacks (savory snacks, carbonated drinks, ice-cream, crackers, chocolate bars, shawarma)	16	5.8
Any snack	33	11.7

Lifestyle Characteristics

A substantial proportion of staff (42.9%) did not engage in any vigorous-intensity exercise, while 27.7% reported no moderate-intensity physical activity. The mean number of days per week of moderate-intensity exercise was 3.27 ± 1.66, while vigorous-intensity exercise averaged 2.46 ± 1.33 days. Sitting time was most commonly 5–8 hours per day (45.7%), while 14.9% reported sitting for more than 8 hours daily. Based on self-perceived activity level, 20.6% of respondents described themselves as sedentary, 39.7% as moderately active, 33.0% as active, and 6.7% as very active. Regarding smoking, 9.9% of respondents identified themselves as smokers, while 78.7% reported they were non-smokers and 11.3% responded “not really.” Alcohol consumption was reported as active use by 17.7% of participants, while 20.2% were past users and 62.1% were non-users (Table 3).

Table 3: Lifestyle Characteristics of Respondents

Variables	Frequency (N = 282)	Percentage (%)
Exposure to smokers		
Regularly	4	1.4
Occasionally	52	18.4
Rarely	104	36.9
Never	122	43.3
Self-identification as a smoker		
Yes	28	9.9
No	222	78.7
Not really	32	11.3
Frequency of smoking (if smoker)		
Everyday	5	9.8
Occasionally	39	76.5
Rarely	7	13.7
Type of tobacco smoked		
Cigarette	18	36.0
Moist snuff	1	2.0
Shisha	3	6.0
Flavoured tobacco	5	10.0
Mixed (cigarette, pipes, shisha, flavoured tobacco)	14	28.0
Smoking intensity		
Light smoker	31	58.5
Average smoker	20	37.7
Heavy smoker	2	3.8
Alcohol consumption		
Active user	50	17.7
Past user	57	20.2
Non-user	175	62.1
Frequency of alcohol use (if active user)		
Everyday	6	7.1
Occasionally	57	67.9
Rarely	21	25.0
Type of alcohol consumed		
Beer	5	4.9
Wine	21	20.6
Herbal mixture	22	21.6
Liquor/Whiskey	7	8.3
Mixed (beer, gin, wine, whiskey, herbal, vodka, liquor)	41	40.2
Others	6	7.1
Alcohol use intensity		
Light user	62	67.4
Average user	29	31.5
Heavy user	1	1.1
Moderate-intensity exercise (days/week)		
< 3 days	72	25.5
3–4 days	94	33.3
> 5 days	38	13.5
None	78	27.7
Mean ± SD	3.27 ± 1.66	
Vigorous-intensity exercise (days/week)		
< 3 days	92	32.6
3–4 days	54	19.1
> 5 days	15	5.3
None	121	42.9
Mean ± SD	2.46 ± 1.33	
Sitting time per day		
< 5 hours	111	39.4
5–8 hours	129	45.7
> 8 hours	42	14.9
Mean ± SD	6.06 ± 4.75	
Perceived physical activity level		
Sedentary	58	20.6
Moderately active	112	39.7
Active	93	33.0
Very active	19	6.7

Medical and Family History of Respondents

Among the staff surveyed, 25.6% reported having at least one diagnosed medical condition, while 74.4% indicated none. Hypertension was the most prevalent diagnosis (14.7%), followed by diabetes (5.2%) and dyslipidaemia (3.3%), while asthma and bipolar disorder were rare (0.5% each). The mean duration since diagnosis was 5.18 ± 3.46 years, with most conditions diagnosed within the last three to four years (69.4%). Family history revealed that 48.3% of respondents reported at least one chronic disease among relatives. Hypertension was the most common (21.5%), followed by diabetes (10.5%) and dyslipidaemia (6.7%). A small proportion reported a family history of combined hypertension and diabetes (1.4%) or obesity (2.4%) (Table 4).

Table 4: Medical and Family History of Respondents

Variables	Frequency (N = 282)	Percentage (%)
Which of these have you been diagnosed with?		
Hypertension	31	14.7
Diabetes	11	5.2
Dyslipidaemia	7	3.3
Asthma	1	0.5
Bipolar disorder	1	0.5
Others	3	1.4
None	157	74.4
How long ago was the condition diagnosed		
< 3 years	18	36.7
3 - 4 years	16	32.7
> 5 years	15	30.6
Mean ± S.D (years)	5.18±3.46	
Which of these have any member of your family been diagnosed with?		
Obesity	5	2.4
Hypertension	45	21.5
Diabetes	22	10.5
Dyslipidaemia	14	6.7
Hypertension & Diabetes	3	1.4
Others	8	3.8
None	108	51.7

Prevalence of Overweight and Obesity

The prevalence of overweight among staff was 39.7%, while obesity accounted for 23.4% of the population. A significantly higher proportion of females were obese (19.0%) compared to males (7.0%) (P = .036). Based on waist circumference, 58.9% of the staff were at increased or substantial risk for central obesity-related health conditions. A markedly higher proportion of females (44.7%) than males (14.2%) were at substantial risk. The association between waist circumference categories and gender was statistically significant (P = .000). The distribution of BMI categories is shown in Table 5.

Table 5: BMI and Waist Circumference Distribution of Respondents

Variables	Male N (%)	Female N (%)	Both N (%)	p-value
BMI				
Underweight (<18.5)	1 (0.4)	5 (1.8)	6 (2.1)	
Normal (18.5–24.99)	52 (18.4)	46 (16.3)	98 (34.8)	
Overweight (25–29.99)	55 (19.5)	57 (20.2)	112 (39.7)	
Obese (≥30.0)	20 (7.0)	46 (19.0)	66 (23.4)	
Total	128 (45.4)	154 (54.6)	282 (100.0)	.036*
Waist Circumference				
Not at risk (< 94cm || < 80cm)	88 (31.2)	28 (9.9)	116 (41.1)	
Increased risk (94 - 101cm || 80 - 87cm)	22 (7.8)	38 (13.5)	60 (21.3)	
Substantial risk (> 102cm || > 88cm)	18 (6.4)	88 (31.2)	106 (37.6)	0.000**

** P < 0.05; ** P < 0.001*

Relationship between the Potential Risk Factors and the Prevalence of Overweight and Obesity

The study found a significant association between gender and obesity (P = .010), with females (69.7%) more affected than males (30.3%). Obesity was most common among staff aged 40–49 years (42.4%) and those in urban areas (83.3%), though these were not statistically significant. Meal skipping, snacking, smoking, alcohol use, physical activity, and comorbidities showed no significant associations (Table 6).

Table 6: Relationship between the Potential Risk Factors and the Prevalence of Overweight and Obesity

Variables	Overweight (N = 112) N (%)	Obesity (N = 66) N (%)	p-value
Gender			0.010
Male	55 (49.1)	20 (30.3)	
Female	57 (50.9)	46 (69.7)	
Age			0.681
< 30 years	11 (9.8)	9 (13.6)	
30 - 39 years	39 (34.8)	20 (30.3)	
40 - 49 years	42 (37.5)	28 (42.4)	
> 50 years	20 (17.9)	9 (31.0)	
Household Size			0.128
< 3	33 (29.5)	11 (16.7)	
3 – 4	48 (42.9)	34 (51.5)	
5 – 6	29 (25.9)	17 (25.8)	
> 7	2 (1.8)	4 (6.1)	
Residential Area			0.115
Urban	79 (70.5)	55 (83.3)	
Peri-urban	23 (20.5)	6 (9.1)	
Rural	10 (8.9)	5 (7.6)	
Occupation			0.664
Clinical Staff	39 (34.8)	22 (33.3)	
Non-Clinical Staff	50 (44.6)	31 (47.0)	
Casual Staff	17 (15.2)	7 (10.6)	
Others	6 (5.4)	6 (9.1)	
Average Monthly Income			0.459
< N50,000	10 (8.9)	8 (12.1)	
N50,000 - N100,000	1 (0.9)	0 (0.0)	
> N100,000 - N200,000	28 (25.0)	13 (19.7)	
> N200,000 - N500,000	47 (42.0)	23 (34.8)	
Meals Skipping			0.226
Yes	83 (74.1)	53 (80.3)	
No	29 (25.9)	13 (19.7)	
Snacking Habit			0.568
Everyday	27 (24.1)	14 (21.2)	
Occasional	70 (62.5)	46 (69.7)	
Rarely	15 (13.4)	6 (9.1)	
Smoking Status			0.177
Yes	15 (13.4)	4 (6.1)	
No	82 (73.2)	56 (84.8)	
Not really	15 (13.4)	6 (9.1)	
Alcohol Consumption Status			0.629
Active user	23 (20.5)	13 (19.7)	
Past user	23 (20.5)	10 (15.2)	
Non-user	66 (59.0)	43 (65.2)	
Perceived Physical Activity Level			0.646
Sedentary	28 (25.0)	13 (19.7)	
Moderately Active	44 (39.3)	24 (36.4)	
Active	34 (30.4)	26 (39.4)	
Very Active	6 (5.4)	3 (4.5)	
Comorbidities			0.473
Yes	21 (26.3)	15 (28.3)	
No	59 (73.8)	38 (71.7)	

** P < 0.05; ** P < 0.001*

Discussion

The socio-demographic structure of the respondents (Table 1) revealed a relatively young and middle-aged workforce, with a predominance of females and clinical staff. This demographic pattern is important, as evidence suggests that female gender and midlife age are consistent predictors of obesity risk in low- and middle-income countries (Akokuwebe *et al*., 2021). The high level of education and income reported by most respondents suggests good awareness of health-related issues, yet this did not appear protective against excess weight, highlighting the complex interplay between knowledge, behavior, and health outcomes.

Dietary habits of staff (Table 2) demonstrated widespread meal skipping and frequent snacking, both of which were associated with overweight and obesity. Skipping lunch was particularly common and linked to higher prevalence of excess weight, supporting previous research that irregular meal patterns disrupt metabolism and promote fat accumulation (Zeballos & Todd, 2020). Snacking on energy-dense items,

such as carbonated drinks and confectionery, though not uniformly significant, reflects dietary transitions in urban Nigeria, where convenience foods replace traditional diets (Petrikova *et al*., 2023). The association between daily snacking and higher obesity rates emphasizes the role of unhealthy snacking patterns in the progression of weight gain.

Lifestyle behaviors (Table 3) further illustrated the health challenges of hospital staff. Sedentary work patterns were pronounced, with nearly half of the staff sitting for over eight hours daily, and obesity was more prevalent among those with sedentary lifestyles. This aligns with evidence that prolonged sitting independently contributes to obesity and cardiometabolic diseases, regardless of moderate exercise levels (Motuma *et al*., 2022). Interestingly, self-reported physical activity did not show a strong association with obesity, likely due to overestimation of activity intensity or the confounding effect of sedentary occupational routines. Unlike physical inactivity, smoking and alcohol use showed no significant association with overweight or obesity, a finding that contrasts with global evidence linking alcohol consumption to higher caloric intake and smoking cessation to weight gain (Shaikh *et al*., 2015). These discrepancies may be related to cultural factors or underreporting among healthcare workers.

Medical and family history of respondents (Table 4) revealed a notable burden of hypertension and diabetes, both among staff and their relatives. The clustering of these conditions within families suggests a shared genetic and environmental susceptibility, consistent with existing evidence on the familial aggregation of cardiometabolic diseases (Pedgaonkar *et al*., 2025). The relatively recent diagnosis of many of these conditions points to an emerging trend, reinforcing the need for early preventive interventions within hospital systems.

The prevalence of overweight and obesity in this study (Table 5) was alarmingly high, with nearly two-thirds of staff classified as overweight or obese. Females bore a disproportionately higher burden, consistent with regional findings that women in sub-Saharan Africa face higher risks due to both biological and sociocultural factors (Habib *et al*., 2021). Waist circumference results confirmed a high prevalence of central obesity, especially among women, highlighting the elevated risk of cardiometabolic complications. This is of particular concern given that central obesity is a stronger predictor of metabolic syndrome than BMI alone (WHO, 2021).

Further analysis of associated risk factors (Table 6) confirmed gender as the only significant predictor of obesity, with women showing nearly double the prevalence compared to men. Although other factors such as age, urban residence, and sedentary lifestyle trended toward higher risk, they were not statistically significant. These findings highlight that while behavioral and occupational factors play a role, gender remains the dominant determinant of obesity in this population. This pattern reflects broader national surveys in Nigeria and other African countries, where women's obesity rates consistently surpass men's, often tied to cultural acceptance of larger body sizes and differences in energy expenditure (Chukwuonye *et al*., 2022).

Conclusion

This study revealed a high prevalence of overweight (39.7%) and obesity (23.4%) among staff of the Neuropsychiatric Hospital, Aro, Abeokuta, with women disproportionately affected compared to men. Central obesity was also common, placing many staff at increased risk for cardiometabolic diseases. Gender emerged as the only significant predictor of obesity, while dietary patterns such as meal skipping and frequent snacking, alongside sedentary lifestyles, contributed to the burden though without strong statistical significance. The findings highlight the urgent need for targeted workplace interventions promoting healthy eating, regular physical activity, and early detection of weight-related comorbidities, particularly among female staff.

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Institutional Review Board

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Research ethics Committee of Neuropsychiatric Hospital, Aro, Abeokuta and Lead City University, Ibadan (protocol code PROO23/25 and date of approval was 14th August, 2025).

Conflicts of Interest

Authors have declared that no conflict of interest exist.

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Declaration of Generative AI and AI-Assisted Technologies in Scientific Writing

The authors confirm that no generative artificial intelligence (AI) tools were used in the drafting, editing, analysis, or preparation of this manuscript. The authors take full responsibility for the content of the article.

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