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Perceptions of Risk Factors for Overweight among Civil Servants in Imo State, Nigeria

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Abstract

This study examined the perceived risk factors associated with overweight among civil servants in Imo State, Nigeria. A descriptive cross-sectional survey design was adopted. The population comprised 11,200 civil servants in selected ministries, departments, and agencies. A sample of 363 respondents was selected using a multistage sampling procedure. Data were collected using the Perceived Risk Factors for Overweight Questionnaire (PRFOQ) and analysed using percentages, means, standard deviations, and independent samples t-test at 0.05 level of significance. The findings showed that behavioural factors were perceived as the strongest contributors to overweight (grand mean = 3.30), with lack of regular physical exercise, unhealthy dietary habits, frequent fast-food consumption, and prolonged sitting rated highest. Occupational factors were also strongly perceived (grand mean = 3.21), with long hours of sitting and limited time for exercise rated highest. Socio-economic factors were perceived as less influential factor among others (grand mean = 2.88). Hypothesis testing revealed no significant difference in perceptions based on gender (behavioural: t = -1.38, p = 0.169; socio-economic: t = -1.21, p = 0.227; occupational: t = -1.78, p = 0.076) or years of experience (behavioural: t = -0.65, p = 0.516; socio-economic: t = -0.72, p = 0.472; occupational: t = -0.82, p = 0.414). The study concluded that civil servants perceived overweight as influenced mainly by modifiable behavioural and occupational factors, and that these perceptions did not differ significantly by gender or years of experience. However, Imo State Ministry of Health, in collaboration with the Civil Service Commission, should implement universal workplace wellness programmes targeting physical inactivity, unhealthy dietary habits, and sedentary work routines.

Keywords: Overweight, Perception, Risk factors, civil servants, Occupational factors, Imo State

Introduction

Overweight is increasingly recognized as a major public health concern because it is closely linked to hypertension, type 2 diabetes (T2DM), cardiovascular disease, musculoskeletal disorders (MSDs), some cancers, and reduced quality of life. Globally, the burden of overweight has reached alarming proportions, with rising prevalence rates straining healthcare systems worldwide. According to the WHO (2025), approximately 2.5 billion adults aged 18 years and above were overweight in 2022, including 890 million living with obesity, indicating that excess body weight is a central non-communicable disease challenge affecting both developed and developing societies.

In Nigeria, the rising trend of overweight and obesity mirrors the global pattern, driven by rapid urbanization, dietary transitions, and declining physical activity. Chukwuonye et al. (2022) found that the prevalence of overweight and obesity among Nigerian adults was 27.6 per cent and 14.5 per cent, respectively, with the burden significantly higher among women. This rising prevalence is largely attributed to a nutrition and lifestyle transition characterized by increasing urbanization, shifts from traditional diets to processed and energy-dense foods, reduced daily physical activity, and rising sedentary behaviour (Adeloye et al., 2022; Chukwuonye et al., 2022). In addition, Adeloye et al. (2022) reported a prevalence of physical inactivity in Nigeria at 52.0 per cent, while urbanization rates have been linked to dietary westernization and increased consumption of fast foods (Adeomi et al., 2023). These transitions are creating obesogenic conditions in which excess body weight is becoming more common. Given these national trends, it is important to understand how occupational groups such as civil servants, who spend most of their working hours in sedentary office environments, are affected by these changing patterns.

The World Health Organization (WHO) (2025) defined overweight as a body mass index (BMI) of 25 kg/m² or above, while obesity refers to a BMI of 30 kg/m² or above. Among adults in diverse occupational settings, civil servants deserve special attention because their work routines often expose them to conditions that favour weight gain. Studies have showed that civil service employment is characterized by prolonged sitting and desk-based duties, with office workers spending up to 72.5 per cent of their working hours sedentary (Leppe-Zamora et al., 2025), while occupational energy expenditure has declined by over 100 calories per day over the past five decades (Church et al., 2011). Work-related stress has also been associated with cortisol-mediated weight gain and increased consumption of energy-dense comfort foods (Kriaucioniene et al., 2023), and structured office schedules limit opportunities for physical activity and promote reliance on convenience foods during working hours (Michalchuk et al., 2022). These workplace conditions create a unique risk profile for civil servants that warrant targeted investigation.

Studies conducted within the Nigerian civil service have consistently documented high rates of overweight and obesity, confirming that civil servants constitute a high-risk occupational group. Among civil servants in Ibadan, the prevalence of overweight and obesity was reported as 31.2 per cent and 26.1 per cent, respectively (Olawuyi & Adeoye, 2018). In Ondo State, 55 per cent of public service workers had BMI values of 25 kg/m² or above (Aladeniyi et al., 2017). In Kaduna, hypertension and overweight/obesity were described as prevalent among civil servants, and female workers were found to be about four times more likely than males to be overweight or obese (Oladimeji et al., 2014). These findings highlight the extent of the problem within the Nigerian civil service. However, while such studies document the epidemiological burden, they do not explain how civil servants themselves perceive and understand the causes of overweight, a gap that the present study seeks to address.

While epidemiological studies provide essential evidence on the prevalence and determinants of overweight, they do not capture how individuals themselves understand and interpret the causes of excess weight. Studies on perceived risk factors investigate how individuals feel, think, and respond to health problems such as overweight, focusing on the subjective, psychological, and sociocultural factors that influence behaviour (Park et al., 2024). If civil servants perceive overweight mainly as a harmless outcome of age, comfort, marriage, or heredity, they may not see it as a condition requiring prevention. On the other hand, if they recognize inactivity, poor diet, prolonged sitting, and stress as risk factors, they may be more open to adopting healthier behaviours. The Health

Belief Model posits that perceived susceptibility and perceived severity are fundamental determinants of health-related actions, while self-efficacy and perceived benefits further predict whether individuals adopt weight management behaviours (Farmanbar et al., 2020; Nguyen et al., 2025). Understanding perceptions of risk factors thus offers insight into how personal beliefs, social influences, and cultural norms shape health decisions.

Body size perception is especially important in the Nigerian context because body weight is not understood solely in biomedical terms. In many African settings, including parts of South-East Nigeria, larger body size may be socially interpreted as a sign of beauty, prosperity, or marital comfort, which can weaken risk recognition. Akinpelu et al. (2015) revealed a high level of veneration of large body size in Southeast Nigeria and showed that this cultural orientation significantly impacted obesity burden and weight-management behaviour. Similarly, Chigbu et al. (2021) reported that more than half of the participants perceived themselves as normal weight despite measurable overweight or obesity. However, such cultural perceptions may be evolving, as increasing access to social media and health communication campaigns may be shifting body size ideals among educated urban populations such as civil servants (Adeomi et al., 2023). Nevertheless, body-size misperception and sociocultural approval of large body size can indirectly contribute to overweight by making excess weight appear normal or desirable. These factors are relevant to the present study because they may shape how civil servants in Imo State understand and respond to overweight.

The likely perceptions of risk factors for overweight among civil servants can be grouped into behavioural, socio-economic, occupational, and sociocultural categories. Behavioural factors include low physical activity, unhealthy eating habits, consumption of energy-dense foods, irregular meals, and alcohol use. These are consistent with current knowledge on overweight aetiology. The WHO (2025) identified excess calorie intake and inadequate physical activity as central drivers of overweight and obesity. In Nigeria, physical inactivity is common in the adult population. A study by Adeloye et al. (2022) estimated the prevalence of physical inactivity in Nigeria at 52.0 per cent, with somewhat higher prevalence among women. In a population where many workers spend long hours seated in offices, such inactivity can combine with poor diet to create a sustained positive energy balance that promotes weight gain (WHO, 2025).

Socio-economic and occupational factors are also likely to shape perceptions of overweight among civil servants. Prior Nigerian studies have linked overweight and obesity with increasing age, female gender, marital status, and higher socioeconomic position (Aladeniyi et al., 2017; Olawuyi & Adeoye, 2018). Older workers may interpret weight gain as a normal part of aging, married individuals may attribute it to family life, and women may relate it to childbirth or hormonal factors. Higher-ranking civil servants may associate larger body size with social status or comfort. However, such explanations may encourage acceptance rather than prevention. Occupational factors are equally relevant, as civil service work requires long hours of sitting, limited walking, and little opportunity for structured exercise. Prolonged sitting has been associated with harmful health outcomes among office workers (Daneshmandi et al., 2017; Dempsey et al., 2016), and occupational sedentary behaviour interacts with low leisure-time activity and unhealthy food choices to increase overweight risk. This means that civil servants may be vulnerable not only because of individual habits but also because of the structure of their daily work environment (WHO, 2025), making it important to examine civil servant populations where overweight is already a documented local concern. Imo State presents such a context.

The Imo State civil service provides an important setting for this investigation because both local and regional evidence suggest that overweight is already an established health concern in the area. A study by Iloh et al. (2011) from a rural mission general hospital in Imo State documented obesity and its common primary co-morbidities among adults, indicating that the problem is locally relevant rather than only national in scope. In the broader South-East, studies have also highlighted the role of body-size norms, urban transition, and lifestyle change in shaping obesity patterns (Chigbu et al., 2021). Since many civil servants in Imo State work in urban or semi-urban environments, are exposed to sedentary work routines, and operate within a sociocultural setting where larger body size may be perceived as healthy, Imo state presents a context in which both epidemiological risk factors and subjective health beliefs are relevant to understanding overweight patterns.

Although overweight is increasingly common among adults in Nigeria, research attention has focused more on prevalence and biomedical correlates than on how people perceive the causes of excess weight (Aladeniyi et al., 2017; Olawuyi & Adeoye, 2018). Fewer studies have examined how people themselves understand and attribute the causes of excess body weight (Akinpelu et al., 2015; Chigbu et al., 2021). This gap matters because preventive strategies are less likely to succeed when the target population does not view overweight as a health risk. For instance, Akinpelu et al. (2015) reported that many overweight adults in a rural Nigerian community perceived themselves as normal weight, while Chigbu et al. (2021) found that over half of overweight participants misclassified their weight status. The problem is therefore not simply that overweight exists among civil servants in Imo State, but that the way they interpret its causes may influence how they respond to it. If workers attribute overweight to non-modifiable factors such as heredity or aging, they may be less inclined to change dietary patterns or participate in workplace interventions. If, however, they recognize modifiable risk factors such as inactivity, poor dietary habits, and prolonged sitting, then prevention efforts can be better received. Without understanding these perceptions, interventions may remain technically correct but socially ineffective. For Imo State, where local evidence indicates a meaningful burden of overweight-related comorbidities (Iloh et al., 2011), this knowledge gap is important for public health policy formulation.

Demographic variables such as gender, age, educational qualification, job grade, and years of experience, which are examined in this study, are likely to influence how civil servants perceive the causes of overweight. For instance, older workers may attribute weight gain to aging, women may relate it to childbirth, and those in higher job grades may associate larger body size with affluence (Agyapong et al., 2020). Understanding how these variables shape perceptions is essential for designing targeted workplace health interventions.

This study is therefore necessary because it shifts attention from merely documenting overweight to understanding the perceptions of risk factors for overweight among civil servants in Imo State. In a workforce that is vital to public administration and service delivery, understanding how overweight is perceived is essential for improving prevention and promoting healthier lifestyles. Yet, to date, no study has examined how civil servants in Imo State perceive the behavioural, socio-economic, and occupational factors that contribute to overweight, creating a significant gap in the evidence base needed to inform effective workplace health interventions. This study, therefore, provides baseline data on perceived risk factors for overweight among civil servants, which can guide the design of culturally appropriate workplace wellness programmes in Imo State and similar settings.

Based on the foregoing, the following objectives and hypotheses were formulated for this study. Specifically, the study sought to: (i) determine civil servants' perceptions of the behavioural risk factors associated with overweight in Imo State; (ii) assess civil servants' perceptions of the socio-economic risk factors associated with overweight in Imo State; and (iii) examine civil servants' perceptions of the occupational risk factors associated with overweight in Imo State. The following null hypotheses were formulated and tested at 0.05 level of significance: H_{01}: There is no significant difference in civil servants' perceptions of the occupational risk factors associated with overweight based on gender. H_{02}: There is no significant difference in civil servants' perceptions of the occupational risk factors associated with overweight based on years of experience.

Methods

Study design and setting

This study adopted a descriptive cross-sectional survey design, a quantitative approach in which data are collected from a defined population at a single point in time using standardized instruments to describe opinions, attitudes, or behaviours without manipulating variables (Creswell & Creswell, 2018; Setia, 2016). The study was conducted among civil servants in the Imo State civil service, located in the South-East geopolitical zone of Nigeria with Owerri as its capital.

Study population

The target population comprised 11,200 civil servants employed in the Imo State civil service, as recorded by the Imo State Civil Service Commission.

Sample size and sampling technique

The sample size was determined using the single-population proportion formula: $n = (Z^2 \times p \times q) / d^2$, where $Z = 1.96$, $p = 0.312$ (Olawuyi & Adeoye, 2018), $q = 0.688$, and $d = 0.05$. This gave approximately 330, and after a 10 per cent non-response adjustment, the final sample was 363. A multistage sampling procedure was used. In the first stage, seven ministries and agencies were selected by simple random sampling through balloting from the Civil Service Commission's sampling frame. In the second stage, the sample was distributed using proportionate allocation based on staff strength. In the final stage, respondents were selected using systematic random sampling from staff lists, with the sampling interval (k) calculated by dividing the number of eligible civil servants in each workplace by the proportionate sample allocated to that workplace (e.g., $k = 500/50 = 10$, meaning every 10th person was selected). Starting from a randomly selected position, every kth person was selected until the required number was obtained.

Data collection instrument

Data were collected using the Perceived Risk Factors for Overweight Questionnaire (PRFOQ), a structured instrument in four sections. Section A elicited demographic information including gender, age, job grade, educational qualification, and years of experience. Sections B, C, and D assessed perceptions of behavioural, socio-economic, and occupational risk factors for overweight, respectively, measured on a 4-point Likert-type scale (strongly disagree = 1 to strongly agree = 4). The instrument was validated by three experts: one from Measurement and Evaluation and, two from Health Education, Alvan Ikoku Federal University of Education, Owerri. It was pre-tested

among civil servants in Abia State. Reliability was established using Cronbach's alpha coefficient, yielding 0.75, indicating acceptable internal consistency.

Data collection procedure

Ethical approval was obtained from the Imo State Ministry of Health Research Ethics Committee (MOH/REC/2025/046). Administrative approval was also obtained from the Imo State Civil Service Commission and heads of selected ministries and agencies. Trained research assistants administered the questionnaire to consenting respondents after explaining the study purpose. Respondents were assured of privacy and confidentiality, and written informed consent was obtained before administration.

Data analysis

Completed questionnaires were checked, coded, and entered into SPSS version 25. Descriptive statistics of frequency, percentage, mean, and standard deviation were used to summarize respondents' characteristics and perceptions of risk factors. A mean score of 2.50 and above indicated agreement that a factor is a perceived risk factor for overweight, while below 2.50 indicated disagreement. Independent samples t-test was used to test the hypotheses at 0.05 level of significance to determine differences in perceptions based on gender and years of experience.

Results

A total of 340 questionnaires were administered to civil servants across the selected ministries and agencies in Imo State. Of these, 303 were completed and returned in usable form, representing a return rate of 89.1%. Thirty-seven questionnaires (10.9%) were excluded due to incomplete responses.

Table 1**: Demographic characteristics of the respondents (n = 303)**

Variable	Category	Frequency	Percentage (%)
Sex	Male	142	46.9
	Female	161	53.1
Age (years)	20–30	58	19.1
	31–40	97	32.0
	41–50	89	29.4
	51 and above	59	19.5
	Widowed/Divorced	23	7.6
Educational qualification	SSCE/OND	38	12.5
	HND/Bachelor's degree	178	58.7
	Postgraduate degree	87	28.7
Job grade	Junior staff	112	37.0
	Senior staff	148	48.8
	Management staff	43	14.2
Years of service	Less than 5 years	65	21.5
	5–10 years	89	29.4
	11–20 years	94	31.0
	More than 20 years	55	18.2

Table 1 shows that the majority of respondents were female (53.1%) and the largest age group was 31–40 years (32.0%). Most respondents were married (68.0%) and held HND or Bachelor's degrees (58.7%). Senior staff constituted the largest job grade category (48.8%), and the majority had between 11 and 20 years of service (31.0%). These characteristics indicate that the sample was diverse in terms of sex, age, educational background, and years of work experience, providing a broad representation of the civil servant population in Imo State.

Table 2**: Perceived Behavioural Risk Factors Associated With Overweight**

S/N	Item	Mean	SD	Decision
1	Lack of regular physical exercise increases the risk of becoming overweight.	3.54	0.63	Agree
2	Eating too much fatty or sugary food contributes to overweight.	3.48	0.68	Agree
3	Frequent consumption of fast foods increases the risk of overweight.	3.41	0.71	Agree
4	Skipping meals and eating at irregular times can contribute to overweight.	3.05	0.84	Agree
5	Drinking alcohol regularly increases the likelihood of becoming overweight.	2.96	0.88	Agree
6	Sitting for long hours every day contributes to overweight.	3.36	0.75	Agree
7	Low participation in sports or other physical activities increases the risk of overweight.	3.29	0.79	Agree
	Grand Mean	**3.30**	**0.75**	**Agree**

Table 2 shows that respondents agreed that behavioural factors are important contributors to overweight (grand mean = 3.30). The highest-rated items were lack of regular physical exercise (Mean = 3.54), eating too much fatty or sugary food (Mean = 3.48), and frequent fast-food consumption (Mean = 3.41). Sitting for long hours (Mean = 3.36) and low participation in sports (Mean = 3.29) were also strongly perceived. Drinking alcohol regularly had the lowest mean (Mean = 2.96) but was still above the cut-off point. These results indicate that civil servants largely perceive overweight as linked to unhealthy lifestyle practices.

Table 3: **Perceived Socio-Economic Risk Factors Associated With Overweight**

S/N	Item	Mean	SD	Decision
1	Increasing age increases the likelihood of becoming overweight.	3.21	0.72	Agree
2	Women are more likely than men to become overweight.	2.88	0.86	Agree
3	Married people are more likely to become overweight than unmarried people.	2.79	0.91	Agree
4	Higher income can increase the risk of overweight.	2.74	0.89	Agree
5	A family history of overweight increases a person’s chance of becoming overweight.	3.17	0.76	Agree
6	Having children can contribute to weight gain, especially among women.	2.66	0.95	Agree
7	Social status and level of affluence can influence a person’s likelihood of becoming overweight.	2.71	0.93	Agree
	Grand Mean	**2.88**	**0.86**	**Agree**

Table 3 indicates that respondents agreed that socio-economic factors are associated with overweight, though less strongly than behavioural factors (grand mean = 2.88). The highest-ranked items were "Increasing age" (Mean = 3.21) and "Family history of overweight" (Mean = 3.17). Items such as sex (Mean = 2.88), marital status (Mean = 2.79), higher income (Mean = 2.74), social status (Mean = 2.71), and having children (Mean = 2.66) were rated above the cut-off point but with

lower mean scores. These results suggest that civil servants perceive socio-economic factors (Mean=2.88) less than behavioural causes (Mean=3.30).

Table 4**: Perceived Occupational Risk Factors Associated With Overweight**

S/N	Item	Mean	SD	Decision
1	Civil service work that involves sitting for long hours increases the risk of overweight.	3.44	0.69	Agree
2	Heavy workload makes it difficult for civil servants to engage in physical activity.	3.08	0.82	Agree
3	Job stress contributes to overweight among civil servants.	3.19	0.79	Agree
4	Long office hours increase the likelihood of becoming overweight.	3.22	0.76	Agree
5	Lack of time for exercise during the workday contributes to overweight.	3.31	0.73	Agree
6	Limited workplace facilities for physical activity encourage weight gain among civil servants.	2.95	0.87	Agree
7	Dependence on office routines with little movement increases the risk of overweight.	3.27	0.75	Agree
	Grand Mean	**3.21**	**0.77**	**Agree**

Table 4 shows that respondents generally agreed that occupational factors contribute to overweight (grand mean = 3.21). The highest-rated item was "Civil service work involving sitting for long hours" (Mean = 3.44), followed by "Lack of time for exercise during the workday" (Mean = 3.31) and "Dependence on office routines with little movement" (Mean = 3.27). Long office hours (Mean = 3.22), job stress (Mean = 3.19), and heavy workload (Mean = 3.08) were also perceived as relevant. These results indicate that civil servants perceive their work setting, especially prolonged sitting and limited opportunities for exercise, as contributing to overweight.

Table 5: **Independent samples t-test comparing perceptions of risk factors for overweight by gender**

Risk Factor Category	Gender	N	Mean	SD	t	df	p-value	Decision
Behavioural	Male	142	3.24	0.78	-1.38	301	0.169	Retain H_{01}
	Female	161	3.35	0.72				
Socio-economic	Male	142	2.82	0.88	-1.21	301	0.227	Retain H_{01}
	Female	161	2.93	0.84				
Occupational	Male	142	3.15	0.79	-1.78	301	0.076	Retain H_{01}
	Female	161	3.27	0.74				

Table 5 shows no statistically significant difference in perceptions of behavioural (t = -1.38, p = 0.169), socio-economic (t = -1.21, p = 0.227), or occupational (t = -1.78, p = 0.076) risk factors between male and female civil servants. Female respondents had slightly higher mean scores across all three categories, but since all p-values exceeded 0.05, the null hypothesis was retained, indicating that gender does not significantly influence civil servants' perceptions of the risk factors associated with overweight.

Table 6**: Independent samples t-test comparing perceptions of risk factors for overweight by years of experience**

Risk Factor Category	Years of Experience	N	Mean	SD	t	df	p-value	Decision
Behavioural	10 years and below	154	3.28	0.74	-0.65	301	0.516	Retain H_{02}
	Above 10 years	149	3.32	0.76				
Socio-economic	10 years and below	154	2.85	0.85	-0.72	301	0.472	Retain H_{02}
	Above 10 years	149	2.91	0.87				
Occupational	10 years and below	154	3.18	0.76	-0.82	301	0.414	Retain H_{02}
	Above 10 years	149	3.24	0.78				

Table 6 shows no statistically significant difference in perceptions of behavioural (t = -0.65, p = 0.516), socio-economic (t = -0.72, p = 0.472), or occupational (t = -0.82, p = 0.414) risk factors between civil servants with 10 years and below experience and those with above 10 years of experience. Since all p-values exceeded 0.05, the null hypothesis was retained, indicating that years of experience do not significantly influence perceptions of risk factors associated with overweight.

Discussion

The findings showed that civil servants in Imo State generally perceived behavioural risk factors as the strongest contributors to overweight, followed by occupational risk factors, while socio-economic risk factors were perceived as less important. This pattern suggests that respondents were more inclined to attribute overweight to modifiable lifestyle and workplace factors than to non-modifiable characteristics. The finding that behavioural factors received the highest perception scores is consistent with other survey studies. Oyewande et al. (2019) found that awareness of behavioural risk factors such as unhealthy diet and physical inactivity was prevalent, although overall knowledge was generally poor. Awosan et al. (2017) found that over 60% of office employees in Sokoto, Nigeria, were overweight or obese, with highly prevalent weight misperception. Essoung et al. (2023) found that knowledge of physical inactivity as a risk factor was moderate, while practice scores were generally low. The perception of dietary factors is also consistent with Zubery et al. (2021), who found that poor dietary habits and physical inactivity were significantly associated with overweight among workers in Arusha, Tanzania.

The finding that occupational factors were the second most strongly perceived category of risk factors is consistent with Daneshmandi et al. (2017) study among office workers in Iran, who found that prolonged sitting and sedentary work routines were perceived as detrimental to health, and reported that the majority of respondents recognized sedentary work as a risk factor for weight gain. Similarly, Akinlawon et al. (2026), in a survey among healthcare workers in Lagos, Nigeria, found that workplace stress was significantly associated with obesity. These findings reinforce the present observation that civil servants perceive their work environment and job structure as contributing to overweight.

The moderate perception of socio-economic factors is also supported by descriptive survey evidence. Simfukwe et al. (2017) found that cultural beliefs and socioeconomic factors influenced perceptions and attitudes towards body weight, with some participants reporting that being overweight was associated with affluence and good living. Similarly, Mabunda et al. (2022), found that cultural beliefs about body size influenced weight perceptions and health behaviours. The

recognition of age and family history as socio-economic risk factors in the present study suggests that civil servants in Imo State have some awareness of non-modifiable contributors to overweight, although they perceive modifiable factors as more important.

The hypothesis testing revealed no significant difference in perceptions of risk factors for overweight based on gender or years of experience. The non-significant gender difference is consistent with Sanusi, Holdbrooke and Ariyo (2015), who found similar workplace conditions contributing to weight gain among both genders in Lagos, Nigeria, and Mogre and Mwinlenna (2013), who found no significant gender association with distorted weight perception in Ghana. This could be attributable to the shared workplace environment. Similarly, the non-significant difference by years of experience is consistent with Olawuyi and Adeoye (2018), who found no significant association between years of service and most NCD risk factors among civil servants in Ibadan, and Aladeniyi et al. (2017), who reported that years of service did not independently predict obesity-related outcomes among public service workers in Ondo State. This suggests that perceptions of overweight risk factors are relatively stable across career stages.

The findings of this study have implications for public health policy and workplace health promotion in Imo State. The strong perception of modifiable behavioural and occupational factors as the primary contributors to overweight suggests that civil servants may be receptive to interventions targeting physical inactivity, unhealthy dietary habits, and sedentary work routines. The non-significant differences in perceptions based on gender and years of experience indicate that workplace wellness programmes can be designed as universal interventions applicable to all civil servants. These findings could be attributable to the shared workplace environment and relatively uniform level of health awareness among civil servants.

Conclusion

This study concluded that civil servants in Imo State perceived overweight as a condition influenced mainly by modifiable behavioural and occupational factors, with physical inactivity, unhealthy dietary habits, prolonged sitting, and sedentary work routines rated as the strongest contributors. Socio-economic factors such as age, sex, marital status, income level, and family history were also perceived as associated with overweight, but less strongly than lifestyle and workplace-related factors. The hypothesis testing revealed that neither gender nor years of experience significantly influenced civil servants' perceptions of the risk factors associated with overweight, suggesting that perceptions are relatively uniform across demographic groups within the civil service.

Based on the findings of the study, the following recommendations are made:

1. The Imo State Ministry of Health, in collaboration with the Civil Service Commission, should implement health education programmes for civil servants on the consequences of physical inactivity, unhealthy dietary habits, and prolonged sitting, and promote regular physical activity and healthy eating as preventive measures against overweight.
2. The Imo State Ministry of Health should design age-appropriate and gender-sensitive health communication materials to address misconceptions linking overweight to non-modifiable factors such as aging and heredity, and emphasize that overweight can be prevented through modifiable lifestyle changes regardless of age, sex, or family history.

3. The Imo State Civil Service Commission should implement workplace policies that reduce prolonged sitting by introducing scheduled movement breaks, walking meetings, and physical activity facilities to create a less sedentary work environment.
4. The Imo State Civil Service Commission should design workplace wellness programmes as universal interventions applicable to all civil servants regardless of gender or years of experience, since perceptions of overweight risk factors do not vary significantly across these demographic groups.

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