



## **Prevalence of Overweight and Obesity among Market Women in Ede Osun State**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

### **Article Information**

#### Editor(s):

- (1) Giuseppe Murdaca, University of Genoa, Viale Benedetto XV, Italy.  
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(2) Adaja Matthew Tomisin, University of Medical Sciences/ UNIMEDTHC, Nigeria.  
Complete Peer review History: <http://www.sdiarticle4.com/review-history/53928>

**Original Research Article**

**Received 20 February 2020**

**Accepted 27 April 2020**

**Published 13 May 2020**

### **ABSTRACT**

The study was carried out to assess the prevalence of overweight and obesity among market women in Ede, Osun State. A total number of 200 market women were assessed using anthropometric indices. The result revealed the age distribution of the respondent which 16% were within the age range of 18-25 years, 40% within the range of 26-40 years, 44% were above 40 years above, 32% skip meals, furthermore 2.0% were underweight, 40.5% were overweight and 49% were obese while only 8.5% were normal. Conclusively there was a high prevalence of malnutrition among the market women especially obesity and overweight when viewed in terms of their weight/height measurements, therefore, there is the need for Nutrition sensitization and awareness creation for market women to control abnormal weight gain and their complications that result.

*Keywords: Malnutrition; prevalence; complication; anthropometric.*

## 1. INTRODUCTION

Non-communicable diseases had overtaken communicable diseases as the leading causes of morbidity and mortality in Nigeria [1,2]. The changing disease pattern has been traditionally attributed to recent advances in medicines resulting in the development of drugs and vaccines for the effective control of communicable diseases [3,4]. Other factors driving this transition include changes in diet, cigarette smoking, alcohol consumption, and inadequate exercise (Lifestyle). There is also rural/urban migration, as well as fetal malnutrition, which predisposes individuals to the development of non-communicable diseases in adulthood [5]. Among these topmost non-communicable diseases are obesity, cardiovascular diseases [6] and so on.

There are several classifications and definitions of obesity. However, the one commonly adopted is the definition by the World Health Organization (WHO), which defines obesity as a Body Mass Index (BMI) of  $\geq 30 \text{ kg m}^2$  or more [7]. In 2008, more than 1.4 billion adults (20 years and above) were overweight, and of these, over 200 million men and nearly 300 million women were obese [8]. This data is alarming considering the health burden associated with these medical conditions. Also, the survey has shown that the increasing trends of obesity in the world are even more pronounced in developing countries of the world [9]. Maternal nutrition has been linked with fetal growth and a child's health [10]. Underweight and obesity have the potential to trigger various disease conditions, which could be prevented through adequate dietary practices. The assessment of women's nutritional status will assist to identify the risk of diseases and promote improved health. Hence, there is a need for continuous study on these important health issues across various groups of the population and in different locations [3,4]. This study was therefore carried out to assess the prevalence of overweight and obesity among market women in Ede, Osun State, Nigeria.

## 2. METHODOLOGY

This design was a descriptive survey type. A questionnaire was given to the market women in Oje, Timi and Owode market Ede Osun state. Using a multi-stage method. A total number of 200 questionnaires were distributed to the respondents, information on socio-demographic factors, eating habit and anthropometric measurements were obtained. The data collected for this study were analyzed descriptively using descriptive statistics such as frequencies, percentages, mean  $\pm$  standard deviation (SD).

## 3. RESULTS

Table 1 shows the respondent age in which 16% were within the age range of 18-25 years, 44% within the age range 26-40 years, while 40% were above 40 years of age.

Table 2 shows the Educational status of the respondents in which 33.50% had no formal education, 12.0% had a primary certificate, 44.0% had secondary school certificate and 10.5% had tertiary school certificates.

Table 3 shows the time they consumed their breakfast in which 23.5% ate between 6 am-8 am, 68.0% ate between 8 a.m-10a.m, 8.5% ate between 10 a.m-12noon.

Table 4 shows that 52.0% were of the respondent said they consumed fruit and vegetable daily while 48% said they didn't consume fruit and vegetables daily.

Table 5 shows that 30.5% of the respondents engage in exercise daily while 61.5% did not engage in exercise or physical activities daily.

Table 6 shows that 32.0% of the respondent skip meal which 68.0% did not skip meals.

Table 7 shows that 2.0% of the respondents were underweight, 8.5% were normal, 40.5 were overweight and 49.0 were obese.

**Table 1. Age of the respondents**

Parameters	Frequency	Percentage (%)
18-25 years	32	16.0
26-40 years	88	44.0
40 above	80	40.0
Total	200	100

**Table 2. Educational status of the respondents**

Education	Frequency	Percentage
No formal education	67	33.5
Primary	24	12.0
Secondary	88	44.0
Tertiary	21	10.5
Total	200	100.0

**Table 3. When do you take your breakfast**

Parameters	Frequency	Percentage
6 am-8 am	47	23.5
8am-10am	139	68.0
10 am-12noon	17	8.5
Total	200	100.0

**Table 4. Do you consume fruits and vegetables daily**

Parameters	Frequency	Percentage
Yes	104	52.0
No	96	48.0
Total	200	100.0

**Table 5. Do you engage in physical activities**

Physical activities	Frequency	Percentage
Yes	61	30.5
No	139	69.5
Total	200	100.0

**Table 6. Do you skip meals**

Parameters	Frequency	Percentage
Yes	64	32.0
No	136	68.0
Total	200	100.0

**Table 7. Anthropometric assessment of the respondent BMI**

BMI	Frequency	Percentage
Underweight	4	2.0
Normal	17	8.5
Overweight	81	40.5
Obesity	98	49.0
Total	200	100.0

#### 4. DISCUSSION

Anthropometric indices were used and the deviation of the anthropometric indices from the standard value was regarded as evidence of

malnutrition. The prevalence of underweight 2.0% observed among the market women population in this study is similar to 2.5% reported by Chukwuonye et al. [11] Also, a similar observation was revealed for overweight with 40.5% and 35.5% as reported by Ernest et al. [12]. It was revealed in this study that 49.0% were obese which was different from 22.5% earlier reported by Ulasi et al. [13] this could be due to their intake of snack consumption and sedentary lifestyle. Also, over nutrition and imbalanced energy intake and energy expenditure can raise the chance of susceptibility to overweight and obesity in an individual, moreover, the study shows that 32.0% of the women skip meals due to different reasons.

#### 5. CONCLUSION AND RECOMMENDATION

Conclusively, the study inferred that good nutrition remains a vital ingredient and a necessity for healthy living. The research showed that the respondents had a high prevalence of malnutrition especially obesity when viewed in terms of their weight/height measurements because most of them consume more of starchy foods and they do not engage in more physical exercises and this can predispose them to other non-communicable diseases. Therefore, there is a need for sensitization and awareness creation for market women to control abnormal weight gain and their complication such as hypertension, cardiovascular diseases, arteriosclerosis and so on.

#### CONSENT

As per international standard or university standard written participant consent has been collected and preserved by the author(s).

#### ETHICAL APPROVAL

It is not applicable.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

#### REFERENCES

1. Sani MU, Wahab KW, Yusuf BO, Gbadamosi M, Johnson OV, Gbadamosi A. Modifiable cardiovascular risk factors among apparently healthy adult Nigerian

- population – A cross-sectional study. BMC Res Notes. 2010;3:11.  
[PMC free article] PubMed
2. Alwan A. Global status report on non communicable diseases 2010. World Health Organization; 2011.
  3. Dada IO. The meal pattern and incidence of overweight and obesity among market women in a Southwest community, Nigeria. Saudi Journal of Obesity. 2017;5(2):70.
  4. Chukwuonye II, Chuku A, John C, Ohagwu KA, Imoh ME, Isa SE, Oviasu E. Prevalence of overweight and obesity in adult Nigerians—A systematic review. Diabetes, metabolic syndrome and obesity: Targets and Therapy. 2013;6:43.
  5. Oladapo OO, Salako L, Sodiq O, Shoyinka K, Adedapo K, Falase AO. Prevalence of cardiometabolic risk factors among a rural Yoruba south-western Nigeria population: A population-based survey. Cardiovasc J Afr. 2010;21(1):26-31.  
[PMC free article] [PubMed]
  6. Shrivastava U, Misra A, Mohan V, Unnikrishnan R, Bachani D. Obesity, diabetes and cardiovascular diseases in India: Public health challenges. Current Diabetes Reviews. 2017;13(1):65-80.
  7. World Health Organization; Technical Report Series. 1995;854:1-1-9950.  
[PubMed]
  8. World Health Organization; Obesity and overweight. Geneva, Switzerland; 2011.  
[Accessed September 17, 2012]
  9. [Updated Mar 2011]  
Available:[http://www.who.int/media/entre/factsheets/fs31\\_i/en/print.html](http://www.who.int/media/entre/factsheets/fs31_i/en/print.html)
  9. Filozof C, Gonzalez C, Sereday M, Mazza C, Braguinsky J. Prevalence and trends Obesity Rev. in Latin-American countries. 2001;2(2):99-106.  
[PufaMed]
  10. Ugwu CE, Ejike CECC, Ezeanyika LUS. Nutritional status, prevalence of some metabolic risk factors for cardiovascular disease and BMI-Metabolic risk sub-Phenotypes in an Adult Nigerian Population. Biochemistry. 2009;21:17-24.
  11. Chukwuonye II, Chuku A, Onyeonoro U, Anyabolu E. Body Mass Index, Prevalence And Predictors Of Obesity In Urban And Rural Communities In Abia State South Eastern Nigeria. J. Diabetes Metab. 2015;6:570.  
DOI:10.4172/2155-6156.1000570
  12. Ernest NA, Innocent CO, Chukwuobi AN, Eke OD. Hypertension and its socioeconomic factors in a market population in Akwa, Nigeria. American Journal of Medical Sciences and Medicine. 2017;5(3):40-48.  
DOI: 10:12691/ajmsm-5-3-1
  13. Ulasi II, Ijoma CK, Onwubere BJC, Arodiwe E, Onodugbo O, Okafor C. High prevalence and low awareness of hypertension in a market population in Enugu, Nigeria, int. J. hypertension. 2011;869675.  
DOI: 10.4061/2011/869675

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