

# Abstract

## BACKGROUND:

Excess weight gain is common in people with type 2 diabetes mellitus (DM) but little is known about its ethno-geographic variation among the Nigerian populace. We aimed to report the prevalence and regional variation of overweight/obesity among subjects with type 2 DM in all the six geo-political regions of Nigeria.

## METHOD:

Basic demographic and anthropometric data were consecutively collected from patients with type 2 DM attending out-patient clinics of seven designated teaching hospitals in the six geographic regions of the country using a pre-agreed method of measurement of anthropometry including waist circumference. The study was hospital-based descriptive cross-sectional in design. Body Mass Index (BMI) was categorised using the WHO criteria. Based on recommendations of the International Diabetes Federation (IDF) cut-off values for waist circumference, values  $>94$  cm and  $> 80$  cm were taken as abnormal for men and women respectively.

## RESULTS:

A total of 709 subjects with DM comprising 378 (53.3%) females and 331 (46.7%) males (female: male ratio 1:1.14) with an overall mean age (SD) of 51.9 (13.9) years were evaluated. The prevalence of excess body weight among Nigerian subjects with type 2 DM was: peripheral (417 or 58.8%) and abdominal obesity (449 or 63.3%). Also, there was a significant wide variation in excess weight gain (both peripheral and central) across ethno-geographic regions ( $p=0.001$ ) and between both sexes ( $p=0.001$ ). In both peripheral and abdominal obesities, whether intra or inter centres, the female subjects with type 2 DM demonstrated relatively higher proportions of anthropometric measures. Generally, subjects from south-south and south-east Nigeria had higher BMI and abdominal obesity compared to those from south-west who had the lowest. The female subjects with type 2 DM were heavier peripherally and centrally compared to their male counterparts.

## CONCLUSION:

The prevalence of peripheral and central obesity among Nigerians living with type 2 DM (especially the female subjects) is unacceptably high. Additionally, there is a wide variation in the proportion and absolute values of both peripheral and central obesity across different parts of Nigeria.

## Keywords

Obesity, Prevalence, Ethno-Geographic Variation, Nigerians, Type 2 Diabetes Mellitus,