

A STUDY OF PREVALENCE OBESITY AND RELATED HEALTH RISKS AMONG MALE BUSINESS SHOP OWNERS IN KATSINA CENTRAL MARKET

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Abstract

This study focused on obesity and its health risks implications on the individual business shop owners sampled at Katsina Central market Katsina Metropolis. The study critically looked at the signs and symptoms of obesity which include large body structures, Examination and identification from ten (10) peoples sampled randomly were assess using parameters used to measure obesity. Indices for measuring obesity such as Height, Weight and body mass index was measured including waist circumference as well as hip circumference. Results showed that business shop owners 3 (30%) having age of 42,51 and47 years were found not obese with waist circumference measured at 76cm, 92cm, and 83cm which did not reached obesity level of 83-98cm body mass index (BMI). Measurements 70% of business owners were found to be obese out from business owners 4-10 with waist circumference of measured at 100cm, 110cm, 111cm, exceeding level of 102cm body mass index (BMI).The observed condition were attributed to excessive control intake and low body exercise. Observed participation indicated some health implications like hypertension, cancer, diabetes mellitus etc further took a closer look at the causes of obesity which include excessive intake energy food. Interview responses indicated that, especially obese among them complain of health implications related to obesity such as hypertension, cancer diabetes mellitus etc. Prevention of obesity was recommendations through regular exercise for 30 minutes daily to manage the BMI

Keywords: *Business shop owners, Health implications, Katsina central market, Obesity identifications.*

Introduction

According to Oxford Advanced Learner's Dictionary (2000), obesity is defined as formal or medical condition of people very fat, in a way that is not healthy. World Health Organization (WHO,2007) defined obesity as a medical condition in which excess body fat has accumulated to extent that it may have an adverse effect on the health leading to reduced life expectancy and increased health problems. Obesity and overweight in the last decade become a global problem. According to World Health Organization (WHO, 2007) back in 2005, approximately 1.6 billion adults over the age of 15 years were overweight, at least 400 million adults were obese and another 20 million children under the age of 15 years were also overweight. Obesity is a condition characterized by an excess of adipose tissues, though many definitions exist but an individual is

commonly classed as overweight when 10%, over some standard (usually the national mean for individual sex, age and height), and obese when 20% over the standard (Royle and Walsh, 1994) in the same vein, Insel and Roth (2006) added that obesity is a condition of having an excess of non essential body fat; having a body mass index of 30kg/M² greater, or having a percent body fat greater than about 24% for men and 38% for women. A study by Flegal, Graubard, Williamson and Gail (2005) revealed that each year, obesity caused at 112,000 excess deaths in United State. Flegal, et al. (2006) has it that there was an increased risk of death among men and women who were overweight but not obese. Obesity has been associated with numerous adverse health effects such as; type 11 diabetes, high cholesterol, hypertension, gall bladder stone, fatty liver diseases, sleep apnea, stress incontinence, heart failure, degenerative joint disease, birth defects, miscarriage, asthma, cancer among others. If a person eats too much his body becomes inflated with stored food a condition known as obesity which results into damage to the heart and circulatory system (Beckett, 2010). There are three types of obesity based on body mass index (IBM). Insel and Roth (2013) identified type i obesity includes those with body mass index of 30.0 kg/m to 34.9kg/m, type ii includes those with body mass index of 35.0kg/m² -39.9kg/m² and type iii obesity which is the worst type of obesity and includes those with body mass index of 40.0kg/m² and above, it is otherwise called extreme obesity.

Experts believe that if the current trend continues, by 2025 approximately 2.3 billion adults has a number of serious health consequences for individuals and governments health system (News medical retrieved 12th March 2013) According to WHO (2017) The United State has the highest prevalence of overweight adults and obesity in the Anglo sphere. The U.S. rate of obesity increased from 13% in 1962 to 35.9% of adult in 2010. Obesity has been cited as contributory factor to approximately 100,000-400,000 death in the United States per year and has increased health care use and expenditure costing society an estimated 117 billion U.S. dollars (Center for disease control, August 13, 2012). The prevalence of severe obesity increased from 1 in 2000 to 1 in 4000. Briggs (2010) opined that obesity is an increase deposition of fat beyond what is considered normal for a given age, sex and build. He further explain that obesity and overweight have certain distinction between them, though they are used interchangeably by many people; overweight according to Briggs (2010) is simply 'over heaviness' without any regarded to fatness, can then be defined as any weight in excess of that recommended for a given person. Obesity may be attributed to an excess intake of calories and lack of exercise. Certain factors affect a person's eating habit affect obesity (Briggs, 2010) such factors are: Home environment, poverty, occupation, emotional factors and age/diseases. According to Walsh and (Royle, 2014) there are environmental, behavioral, genetic, physiological and socioeconomic variables responsible for obesity such as Excessive food energy intake, sedentary life style, Not having enough sleep, Dug medication ,Hereditary, Diseased conditions, Reduction in rate of smoking, Emotional factors and perceptions. The followings were also listed by Royle and Walsh (2015) as the risk of obesity which includes Hypertension, Coronary Heart disease, Type II Diabetes Mellitus, Respiratory problem etc.

Obesity is described based on the source (cause), according to fat distribution, according to body shape and body tissues (Polednak, 2013). Simple obesity is caused by ingestion too much heat energy and consuming less heat energy leading to storing up of much fat which is either constitutional or acquired, while secondary obesity is called symptoms obesity where disease is the primary cause which causes diseases e.g. crushing's syndrome, polycystic ovary syndrome, insulin tumor, hypothyroidism etc. There are five classifications of obesity based on fat distribution which include belt shaped, Great trochanter shaped, lower limb, upper limb and Hip Obesity. Obesity is also classified into five classes based on shape comprising pear shape where most of the people here are female, they have narrow shoulder, small breast, slim waist, and fat is mainly accumulated in the hip, middle abdomen and thigh surroundings. Apple shaped obesity is mainly in males, fat is mainly stored in the abdomen. According to body tissue nutrition four types of obesity are identified. Fat hoarding are thick layers of fat, body fat rate exceeds 35% for female while exceeding 30% for male. Muscle shape in this type special feature of this type is that their legs and whole body looks strong as reddish, and has the same level of fat deposits. Edema in another type in which the water inside the body is over 60% of the weight, and lastly there is mixed shape which possesses all the above three types of tissues discussed (Matrix and Fosta, 2011). In Nigeria, the prevalence of overweight individuals ranged from 20.3%-35.1%, while the prevalence of obesity ranged from 8.1%-22.2%. The prevalence of overweight and obese individuals in Nigeria is of epidemic proportion which was identified for lack body exercise and noncompliance to dietary regulations. It further reported that the case of overweight and obesity affected peoples mostly between ages 50-60 years (Typus, 2017). It had been examined from their physical body characteristics and features most shop owners were weighted or over weighted and for this reason this investigation was intended to find out the reasons

Objectives of the study

1. To find out if there is obesity among shop owners in Katsina Central Market
2. To assess status and what causes the problem among their age group
3. Suggest ways on how to remedy the problem

Research questions

1. Did obesity a problem among shop owners in Katsina Central Market?
2. What causes the problem?
3. How the problem distributed among age group?

Methodology

The study employed descriptive cross-sectional study design conducted on twenty (20) randomly selected shop owners out of the total population size of one hundred (100) selected carrying out selling of goods at the central market Kastina. Data for the research was collected in November 2019 within the central market. Participants involved in the research were interviewed individually for 15-25 minutes and the interview tool was adapted from the version of the WHO stepwise approach surveillance instrument which included questions on socio-demographic characteristics,

smoking, fruit and vegetables consumption, physical activity, current or previous and previously diagnosed heart disease and diabetes. A trained professional was appointed to measure body weight and blood pressures of the selected shoppers for the study. Four trained medical personnels carried out the interview with the subjects and were in charge of questionnaire administration. Height and weight were measured with electronic scale, equipped with portable height measuring stick-on which the business men stood barefooted and with minimal clothing. Readings was in accordance to the FANTA (Food and Nutrition Technical Assistance) protocol. Measured weight and height were used to calculate BMI (KG/M²). Examined participants were classified into four (4) groups: underweight normal weight, overweight or obese. They were also respondents based on the relevant of their extent of physical activities (1) vigorous (2) moderate (3) insufficient and (4) none. Blood pressure was recorded with an electronic blood pressure measurer, respondents were considered to be hypertensive if they met the any of the following criteria (1) measured systolic blood pressure exceeding 140mmHg and /or diastolic blood pressure exceeding 90 mmHg.

Measuring Obesity on the Target People

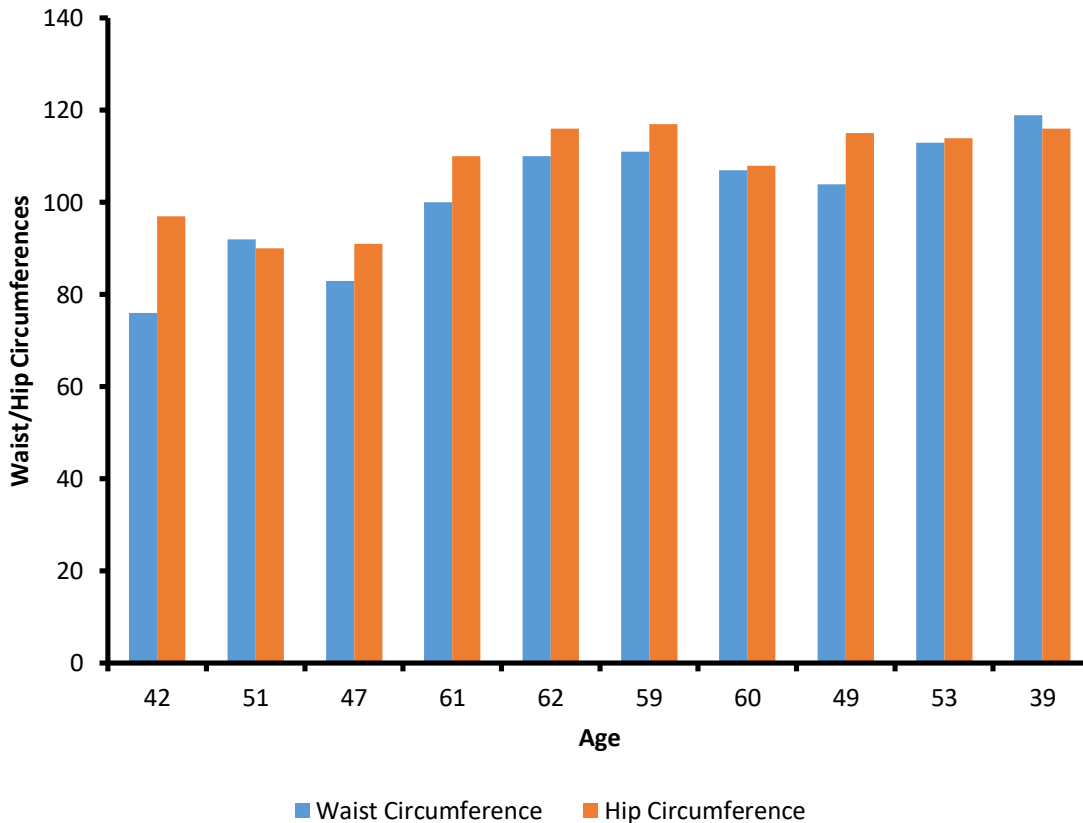
Two ways were employed in this research work to measure obesity which. The first one was by using method of body mass index used to measure body mass index (BMI). In the second method it uses waist circumference and waist to hip ratio all measured and recorded. The result obtained was discussed in the result findings. Body mass index is calculated using each person's height and weight. The formula is $BMI = \frac{kg}{m^2}$ where kg is a person's weight in kilograms and cm is height. Waist circumference is measured by standing and placing a tape around your middle, just above the hipbones by making sure the tape is horizontally around the waist, the tape was snug around the waist, but not compressed on the skin. Then the measurement of was done after the person to be measured breathes out.

Results and Discussion

Table 1: Measure of waist circumference and Hip in Obesity

Sex	Age	Waist Circumference (cm)	Hip Circumference (cm)
Male	42	76	97
Male	51	92	90
Male	47	83	91
Male	61	100	110
Male	62	110	116
Male	59	111	117
Male	60	107	108
Male	49	104	115
Male	53	113	114
Male	39	119	116

Histogram from measurement of Age, Waist and Hip Circumferences



The results determined the waist circumference and hip measures as index for getting assessment tool that complement the BMI (body mass index) to determine the obesity among persons sampled for the study measuring the obesity of the ten (10) persons sampled and studied for obesity case in the table above. Age mean waist circumference of the first three persons was measured and recorded at the values 76cm, 92cm and 83cm respectively. From the measurement it was found not obese, because their waist circumference values did not exceed acceptable value range for obesity index which is 83-98cm waist circumference.

Results of the measurements recorded from waist circumference of persons in table number 4-10 were all measured and recorded with circumference values exceeding the acceptable values and was considered to be obese. The recorded waist circumference values was 100cm, 110cm, 111cm, 107cm, 104cm, 113cm and 119cm respectively. An interview was conducted with the persons on health status and was revealed that those with circumference greater than 102cm either have Hypertension, coronary Heart Disease, Type II Diabetes Mellitus or Cancer. The health implication from the study indicated that, persons interviewed and responded from serial number 4 - 10 from table 1 are obese had waist circumference above which is greater than 102 cm and they are at a substantial increase risk of obesity related diseases. These include Hypertension, Coronary

Heart Diseases, Type 11 Diabetes Mellitus, and Cancer etc. This is in line with the findings of Royle and Walsh (2016) where he listed Hypertension, Coronary Heart Diseases, Type II Diabetes Mellitus, and Cancer as health risks of obesity.

Conclusion

Obesity has been found common affecting people of all ethnic and different background, income, and varying educational status. Obesity was reported to have significantly decreased the life expectancy of the individuals which could be fatal or ultimately resulting to death. Obesity has been found to be the cause of many health disease problems to man such as Hypertension, Coronary Heart Disease, Type II Diabetes Mellitus and Cancer. Research result from this study indicated that majority of the target people studied was obese and is under the threat obesity associated health problems.

Recommendations

Based on the research findings the following recommendations were put forward

1. Obese persons should change sedentary life style on active style by involvement in body exercise and also having enough sleep.
2. Obese should be advise to take less energy diet food and more fruits and vegetables should be in cooperated into their diet. As more water intake should also be encouraged.
3. They should involved in regular exercise and be persistent and consistent with such exercise for at least 30 minutes to one hour every day.
4. Obese should be advised not to skip breakfast in the name of controlling weight, but eat a little at a time.
5. Use of medications to treat obesity in patients already with the problem, drugs should be made available for use as the last option

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