

# 1.0 INTRODUCTION

## 1.1 Background to the Study

Gender, age and weight are the fundamental indices of human growth, which are strongly affected by various factors such as genetic effects, race, nutrition, congenital disease, and so on. Anthropometric measures have been widely used for body weight classification in humans. Basically, the weight and age distributions for different sex are most widely used in the assessment of the health status and various physiological processes as well as for many other research and commercial purposes. The weight and age relationship from birth through maturity is represented by three segments or physiologic age intervals- infancy, childhood and adulthood (Gross *et al.*, 2005).

The beginning of biological growth and development during adolescence is signified by the onset of puberty, which is often defined as the physical transformation of a child into an adult. A myriad of biological changes occur during puberty including sexual maturation, increases in height and weight, completion of skeletal growth accompanied by a marked increase in skeletal mass, and changes in body composition. The succession of these events during puberty is consistent among adolescents; however, there may be a great deal of deviation in the age of onset, duration, and tempo of these events between and within individuals (Wong *et al.*, 1995).

Body shape or body weight is an important element of the intricate mechanism of one's own identity. Weight is really the ratio of lean body mass to fat body mass. The relationship between the indices and physical conditions of weight and sex of an individual has been extensively studied by Eknoyan, (2008) with an aim to establish an anthropometric measurement for body mass index (BMI). The weight and age of an individual can be useful in determining its' center of mass which is nearly the geometric center of a person and this differs across males and females of different age group. More so, there is a growing clinical interest in body composition between males and females most especially their percentage body fat due to the evidence that links body composition with health risks and the development of certain diseases.

Gender differences in the perception of body weight have been well documented worldwide (Veggi *et al.*, 2004). Young adults have difficulty characterizing their body shape correctly. More women than men perceive themselves as being overweight. Due to the belief that they have to be slim to be sexually attractive, women are under greater pressure than men to lose weight (Nichols *et al.*, 2009). Females have suffered from negative body image to a greater degree than males. Recently, there is increasing pressure on males and females to desire a body shape that conforms to the (ideal) a thin shape for women and a lean, muscular shape for men (McCabe and Ricciardelli 2004).

According to Barnes, (1975) approximately half of adult ideal body's weight is gained during adolescence. The peak weight gain follows the linear growth spurt by 3 to 6 months in females and by approximately 5 months in males. Girls could gain approximately 8.3 kg per year during peak rates of weight gain, (12.5 years of age on average). Average weight gains during puberty among females are between 7-25 kg, with a mean gain of 17.5kg. Weight gain slows around the time of menarche, but will continue into late adolescence. Adolescent females may gain as much as 16.3 kg during the latter half of adolescence. Consequently, adolescent males gain an average of 9 kg per year during puberty. Overall, male teens gain 7-30kg during puberty, with a mean gain of 23.7 kg.

According to John (2003), too much fat can lead to health problems such as heart diseases, diabetics, high cholesterol and other serious conditions as well as influencing the academic performance of student. This infact makes monitoring percentage body fat a key component of any weight loss or fitness programme. One of the serious health problems is obesity which causes various diseases such as cardiovascular disease and diabetes. Thus, investigating the statistical properties of weight and age of males and females from the viewpoint of the human growth process is important for the prevention of adult diseases.

## 1.2 Statement of the Problem

Weight gain and behavioral patterns during college may contribute to overweight and obesity in adulthood. Also, eating disorders have become a widespread problem among students in university campuses today. These often results in weight problems such as; excess amounts of body fat for one's height or frame called overweight (or obese), or insufficient body fat called underweight. People with weight problems could result to health conditions that affect individuals physically (impairing movement and normal daily activity), psychologically (developing low self esteem or low self worth), socially (inability to socialize and function well in the society) and economically (increased cost of living due to higher healthcare cost and decreased productivity). This study examines the relationship between weight and age of male and female students.

## 1.3 Objectives of the Study

The main purpose of this study is to examine the relationship between weight and age of male and female students in Abraka. Specifically, the purpose of the study includes the following;

- Determine the mean body weight of male students in Abraka.

- Determine the mean body weight of female students in Abraka

- Determine if there is any significant relationship between body male and female weight in Abraka.

- Determine if there is any significant relationship between body and age for both male and female in Abraka.

## 1.4 Significance of the Study

Mathematical models are useful in solving physical problems. The results of this study on the relationship between weight and age of male and female students will benefit students and educators towards identifying factors which may have influenced male and female students' body weight variations towards moderating their life style.

## 1.5 Justification of the Study

Physics is a branch of science concerned with the nature and properties of matter and energy. Physics is a science that is concerned with measurement of physical quantities such as length; mass, time etc, the physics concept usually used to solve physical problems. The concept of physics is applied to solve physical problems. This study aim at the determination of the relationship between weight and age of male and female students in Delta state university, Abraka. And also aim at comparing statistically difference in weight and age of male and female students using T-test and spearman's rank correlation.

**THE DETERMINATION OF THE RELATIONSHIP BETWEEN THE WEIGHT AND AGE OF MALE AND FEMALE STUDENTS IN DELTA STATE UNIVERSITY, ABRAKA**

**The complete project material is available and ready for download. All what you need to do is to order for the complete material. The price for the material is NGN 3,000.00.**

**Make payment via bank transfer to Bank: Guaranteed Trust Bank, Account name: Emi-Aware technology, Account Number: 0424875728**

**Bank: Zenith Bank, Account name: Emi-Aware technology, Account Number: 1222004869**

**or visit the website and pay online. For more info: Visit <https://researchcub.info/payment-instruct.html>**

**After payment send your depositor's name, amount paid, project topic, email address or your phone number (in which instructions will sent to you to download the material) to +234 70 6329 8784 via text message/ whatsapp or Email address: [info@allprojectmaterials.com](mailto:info@allprojectmaterials.com).**

**Once payment is confirmed, the material will be sent to you immediately.**

**It takes 5min to 30min to confirm and send the material to you.**

**For more project topics and materials visit: <https://researchcub.info/> or For enquiries: [info@allprojectmaterials.com](mailto:info@allprojectmaterials.com) or call/whatsapp: +234 70 6329 8784**

**Regards!!!**