

INFLUENCE OF GENDER AND AGE ON SERUM LIPIDS AND LIPOPROTEINS OF STUDENTS IN BORNO STATE, NIGERIA

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ABSTRACT

Modern lifestyle is characterized by increased leisure, decreased physical activity and consumption of unhealthy diet. Accumulated research evidence has clearly shown that these factors are positively associated with the increased incidence of degenerative disorders. It is not clear how these factors affect modifiable disease risk factors, like physical inactivity, overweight, obesity and blood pressure in different age groups and genders for successful interventions. This study was therefore conducted to find out the influence of age and gender of junior and senior secondary school students in Borno state on their serum lipids and lipoproteins. To achieve this purpose, 540 volunteer students selected at random from Junior and Senior Secondary schools of Maiduguri were interviewed, on the basis of which 15 male and 15 female subjects from each of the pre-adolescent, adolescent and adult groups were selected at random. Using standard procedures, serum triglycerides, total cholesterol, high density lipoprotein cholesterol, and low density lipoprotein cholesterol of these subjects were determined. The results of the study revealed greater percent of triglycerides, total cholesterol, high density lipoprotein cholesterol and low density lipoprotein cholesterol among adults compared to adolescents and pre-adolescents. Results further revealed that female pre-adolescents had significantly greater percent of low density lipoprotein cholesterol compared to their male counter parts. However, such significant gender differences in serum lipids were not found among adult and adolescent groups. These results are contrary to earlier findings which showed significant differences in serum lipids between boys and girls. This difference between the findings of this study and those of earlier studies may be attributed to intervening factors like nutrition and lifestyle which were not controlled in this study. Further studies are recommended to find out the influence of physical activity and nutrition which were not controlled in this study on serum lipids of different male and female age groups.