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Relationship Between Quetelet Equation and Skin Fold Teckniques in Determining Obesity Among Adolescents in Maiduguri, Borno State, Nigeria

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Abstract : The study was conducted to determine the relationship between Quetelet Equation and Skin fold measurement in determining obesity among adolescent male students of University of Maiduguri Demonstration Secondary School, Borno State, Nigeria. A total of 66 students participated in the study, their age ranges from 15-18 years. The ex-post-facto research design was used for this study. Anthropometric measurements were taken at three sites (thigh, abdomen and chest) using accu–measure Skin fold caliper. The values of the three measurements were used to determine the percentage body fat of the participants using the 3-Point Skin Fold Bodyfat calculator of Jackson-Pollock. Body mass index (BMI) was determined using weight (kg) divided by height in (m2). The data obtained was analyzed using descriptive statistics (mean and standard deviation) and inferential statistics of Pearson product moment correlation coefficient to determine the relationship between the two techniques. The result showed a significant positive relationship $r=0.673$ $p<0.05$ between body mass index and skin fold measurement techniques. It was however observed that BMI techniques of determining body fat tend to overestimate the actual percent body fat of adolescents studied. Based on this result, it is recommended that the use of BMI as a technique for determining obesity should be used with caution.

Keywords : body max index, skin fold, quetelet, techniques
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