ISSN 0972-0073

THE ANTHROPOLOGIST

International Journal of Contemporary and Applied Studies of Man

PRINT: ISSN 0972-0073 ONLINE: ISSN 2456-6802

Anthropologist, 17(3): 921-927 (2014)
DOI: 10.31901/24566802.2014/17.03.26

Evaluation of the Relationship between Handgrip Strength with Some Anthropometries among Nigerian Secondary School Students

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KEYWORDS Handgrip. Anthropometric Variables. Weight. Height. Hand. Students. Kano

ABSTRACT The aim of the present study was to evaluate the relationship between handgrip strength and some anthropometric variables in 400 randomly selected Secondary School Students in Kano, Nigeria. The students were from two secondary schools and were aged 14-18 years with mean age of 16.00±1.35. The anthropometric variables namely, the height, weight, BMI, hand width and length, upper and lower arm length, mid upper arm circumference (MUAC) and handgrip strength were measured using standard anthropometric measurement techniques. The results from the present study showed that male students had higher mean values in seven variables namely, the height (16.00±1.35kg), weight (46.34±8.30cm), hand length (19.34±0.98cm), hand width (10.45±0.90cm), forearm length (27.93±1.92cm), arm length (31.93±2.46cm), handgrip strength (35.63±17.17), and lower mean values in two variables namely, BMI (17.45±2.30) and MUAC (24.23±2.26cm). In male students, handgrip strength had significant positive correlations (Pd"0.01) with all the variables studied while in the female students, handgrip strength had a significant positive correlation (P≤0.01) with some of the variables studied. It may be concluded that handgrip strength had strong positive correlations with all the anthropometric variables studied in Nigerian Secondary School Students of Kano metropolis.