

The Relationship between Body Composition and Physical Fitness of Primary School Learners from a Pre-Dominantly Rural Province in South Africa

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Abstract : There is arguably a lack of literature regarding body physical fitness and body composition amongst primary school learners in South Africa. For this reason, the study is aimed at investigating and accessing how body composition relates to physical fitness amongst primary school learners in the Eastern Cape Province of South Africa. In order to achieve this, a school-based cross-sectional survey was carried out among 876 primary school learners aged 9 to 14 years. Body composition indicators were measured and/or calculated, whilst physical fitness was evaluated according to the EUROFIT fitness standards by a 20 m shuttle run, push-ups, sit and reach as well as sit-ups. Out of 876 participants, a total of 870 were retained. Of these, 351 (40.34%) were boys, and 519 (59.66%) were girls. The average age of learners was 11.04 ± 1.50 years, with boys having a significantly ($p = 0.002$) higher mean age ($M = 11.24$; $SD = 1.51$ years) as compared to that of girls ($M = 10.91$; $SD = 1.48$ years). The non-parametric Spearman Rho correlation coefficients revealed several significant and negative relationships between body composition measurements with physical fitness characteristics, which were stronger in girls than in boys. The findings advocate for policymakers and responsible authorities to initiate the development of policies and interventions targeted at encouraging physical activity and health promotion among primary school learners in South Africa, especially in girls.

Keywords : BMI, body composition, body fat, children, physical fitness, primary school

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