

**CARDIO-RESPIRATORY FUNCTION, BODY COMPOSITION, ABDOMINAL MUSCULAR STRENGTH ENDURANCE AND FLEXIBILITY AMONG BOYS OF NON-KANDI AREA**

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**ABSTRACT**

*The present study investigated the cardio-respiratory function, body composition, abdominal muscular strength endurance and flexibility among boys of non-Kandi area. In this study, the subjects for data collection were drawn from the different government schools of Non-Kandi areas of Punjab state. Random sampling technique was used to select the subjects. The sample consisted of one thousand five hundred seventy five (N=1575) boys of Non-Kandi areas of Punjab state. To measure maximal functional capacity and endurance of the cardio-respiratory system of the subjects, the 9Minute run test was applied. To evaluate the level of fatness in school boys, the Skinfold caliper was used. To assess the abdominal muscular strength endurance of the subjects, modified sit-ups test was applied. Sit and reach test was used to evaluate the flexibility (extensibility) of the low back and posterior thighs of the subjects. The Analysis of Variance (ANOVA) was applied to find out the significant differences among various age groups/classes of Non-Kandi area boys. Scheffe's post-hoc test was applied to see the direction and significance of differences where 'F' ratio was found significant. The results of Analysis of Variance (ANOVA) of various age groups of Non-Kandi area revealed that group 14-15 years (class 9<sup>th</sup>) demonstrated significantly better maximal functional capacity and endurance than 13-14 years (class 8<sup>th</sup>). Similarly class 10<sup>th</sup> demonstrated significantly better than group 13-14 years (class 8<sup>th</sup>) on the said variable. But group 15-16 years (class 10<sup>th</sup>) exhibited better than group 14-15 years (class 9<sup>th</sup>) though not significantly on the said variable. No significant differences were found on the variable body composition amongst various age groups. Group 14-15 years (class 9<sup>th</sup>) demonstrated significantly better abdominal muscular strength endurance than 13-14 years (class 8<sup>th</sup>). Similarly 15-16 years (class 10<sup>th</sup>) exhibited significantly better than 13-14 years (class 8<sup>th</sup>) and class 9<sup>th</sup> on the said variable. Group 14-15 years (class 9<sup>th</sup>) exhibited significantly better flexibility (extensibility) of the low back and posterior thighs than 13-14 years (class 8<sup>th</sup>). Similarly 15-16 years (class 10<sup>th</sup>) demonstrated significantly better than 13-14 years (class 8<sup>th</sup>) and 14-15 years (class 9<sup>th</sup>) on the said variable.*