A Study of Body Composition and Selected Physical Fitness Components among Female Kabaddi and Kho-Kho Players in Sabaragamuwa University of Sri Lanka

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Kabaddi and Kho- Kho are contact team sports played between two teams of 7 players and 9 players respectively. The present study aimed to study the body composition and selected physical fitness components of female Kabaddi players and Kho-Kho players of the Sabaragamuwa University of Sri Lanka. Under cross-sectional research design, a total of 50 (Kabaddi 35, Kho Kho 15) subjects were selected using the purposive population sampling technique. The sample's body composition was recorded by operating Multifrequency Tanita Body Composition Analyzer® (MC-780). Body compositions of total fat, muscle mass, fat-free mass, body mass index were recorded. EUROFIT® fitness test battery and standardised speed test were used for data gathering of selected physical fitness components of flexibility, agility, and speed. Sit and Reach, Shuttle Run 10m*5, and 35m sprint tests were performed. Minitab version 17 and Microsoft Excel 2013 were used for statistical analysis. According to the One-way ANOVA test the mean differences of selected body composition parameters and selected physical fitness components of the sample were significantly different (P=0.000). However, according to the two-sample t-test, there was no mean difference between the body composition among Kabaddi and Kho-Kho players (P=0.006). Moreover, the agility of both groups was significantly different (P=0.023) and, flexibility and speed were not significantly different among both groups. In a conclusion, it is evident that body compositions of fat, muscle mass, fat-free mass and body mass index were associated with selected physical fitness components of flexibility, agility, and speed of Kabaddi players and Kho-Kho players. However, only the agility physical fitness component was different in the sample groups. It is suggested to consider the body composition levels in order to gain a higher level of physical fitness among players of both sports.

Keywords: Body composition, Kabaddi, Kho-Kho, Physical fitness components