

Study of Back Strength and Its Association with Selected Anthropometric and Physical Fitness Variables in Inter-university Hockey Players

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ABSTRACT The purpose of this study was of two-fold: first, to estimate the back strength of inter-university hockey players and, second, to search the correlation of it with selected anthropometric characteristics. To serve this purpose, a total of seven anthropometric characteristics, viz. height, weight, BMI, hip circumference, percent body fat, percent lean body mass and back strength and two physical fitness variables, viz. flexibility measures and abdominal muscle endurance were measured on purposely selected 110 inter-university hockey players (58 males and 52 females) aged 18–24 years collected from six universities participated in the Inter-university Championship organized in Guru Nanak Dev University, Amritsar, Punjab, India during 10 to 17 September, 2010. An adequate number of controls were also taken from the same place for comparisons. Results indicated significant differences ($p < .05 - .000$) between hockey players and their control counterparts in weight, BMI, hip circumference (only in male players), flexibility measures, abdominal muscle endurance (both in male and female players), percent body fat and percent lean body mass (only in male players) and back strength (only in female players). In hockey players, back strength has significantly positive correlations ($p < .05-.01$) with all the variables studied (except flexibility measures).