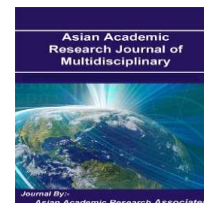




A Peer Reviewed International Journal of Asian
Academic Research Associates

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**ASIAN ACADEMIC RESEARCH
JOURNAL OF MULTIDISCIPLINARY**



**STUDY OF BALL HITTING SPEED AND RELATED PHYSIOLOGICAL AND
ANTHROPOMETRIC CHARACTERISTICS IN FIELD HOCKEY PLAYERS**

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Abstract

The present study was conducted to assess ball hitting speed of field hockey players and find physiological and anthropometric characteristics significantly related to it. Total 31 Indian national level field hockey players (18 male and 13 female, aged 12-21 years) voluntarily participated in this cross sectional study. Average ball hitting speed, anthropometric and physiological parameters were measured for each player. Mean, standard deviations, Pearson's correlation coefficients and multiple regression analysis were calculated along with statistical significance. The analysis revealed that the ball hitting speed is significantly correlated with height, lean body mass, midstylion-dactylion length, hand grip strength, back strength, upper limb and lower limb strength of the players. Multiple linear regression analysis showed that upper limb strength is the most significantly associated parameter to explain and predict ball hitting speed.

KEY WORDS: Field hockey, Ball hitting speed, upper limb strength, grip strength, back strength.
