

High Injury Prevalence in Adolescent Field Hockey Players: Implications for Future Practice

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Abstract : Field hockey is a popular international sport which is played in more than 100 countries across the world. Due to the nature of hockey, players repeatedly perform a combination of forward flexion and rotational movements of the spine in order to strike the ball. These movements have been shown to increase the risk of pain and injury to the lumbar spine. The aim of this study was to determine the prevalence and incidence of low back pain (LBP) in male adolescent field hockey players and the characteristics of LBP in terms of location, chronicity, disability, and treatment sought, as well as its association with selected risk factors. A survey was conducted on 112 male adolescent field hockey players in the eThekweni Municipality of KwaZulu-Natal, South Africa. The questionnaire contained sections on the demographics of participants, general characteristics of participants, health and lifestyle characteristics, low back pain patterns, treatment of low back pain, and the level of disability associated with LBP. The data were statistically analysed using IBM SPSS version 25 with statistical significance set at p -value < 0.05 . Descriptive statistics such as mean and standard deviation were used to summarise responses to continuous variables as appropriate. Categorical variables were described using frequency tables. Associations between risk factors and low back pain were tested using Pearson's chi-square test and t-tests as appropriate. A total of 68 questionnaires were completed for analysis (67% participation rate); the period prevalence of LBP was 63.2% (35.0%:beginning of the season, 32.4%:mid-season, 22.1%: end of season). Incidence was 38.2%. The most common location for LBP was the middle low back region (39.5%), and the most common duration of pain was a few hours (32.6%). Most participants (79.1%) did not classify their pain as a disability, and only 44.2% of participants received medical treatment for their LBP. An interesting finding was the association between hydration and LBP ($p = 0.050$), i.e., those individuals who did not hydrate frequently during matches and training were significantly more likely to experience LBP. The results of this study, although limited to a select group of adolescents, showed a higher prevalence of LBP than that of previous studies. More importantly, even though most participants did not experience LBP classified as a disability, LBP still had a large impact on participants, as nearly half of the participants consulted with a medical professional for treatment. Need for the application of further strategies in the prevention and management of LBP in field hockey, such as adequate warm-up and cool-down, stretching exercises, rest between sessions, etc., are recommended as simple strategies to reduce LBP prevalence.

Keywords : adolescents, field hockey players, incidence, low back pain, prevalence, risk factors

Conference Title : ICBNPA 2023 : International Conference on Behavioral Nutrition and Physical Activity

Conference Location : Bangkok, Thailand

Conference Dates : August 17-18, 2023