

## Educational Framework for Coaches on Injury Prevention in Adolescent Team Sports

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**Abstract :** Background: Millions of South African youths participate in team sports, with netball and rugby being two of the largest worldwide. This increased participation and professionalism have resulted in an increase in the number of musculoskeletal injuries. Objective: This study examined the extent to which sport coaching knowledge translates to the injuries and prevention of injuries in adolescents participating in netball and rugby. Methods: Thirty-four South African sports coaches participated in the study. Eighteen netball coaches and 16 rugby coaches with varying levels of coaching experience were selected to participate. An adapted version of Nash and Sproule's questionnaire was used to investigate the coaches' knowledge with regards to sport-specific common injuries, injury prevention, fitness/conditioning, individual technique development, training programs, mental training, and preparation of players. The analysis of data was carried out using a number of different techniques outlined by Nash and Sproule (2012). These techniques were determined by the type of data. Descriptive data was used to provide statistical analysis. Quantitative data was used to determine the educational framework and knowledge of sports coaches on injury prevention. Numerical data was obtained through questions on sports injuries, as well as coaches' sports knowledge levels. Participants' knowledge was measured using a standardized scoring system. Results: For the 0-4 years of netball coaching experience, 76.4% of the coaches had knowledge and experience and 33.3% appropriate first aid knowledge, while for the 9-12 years and 13-16 years, 100% of the coaches had knowledge and experience and first aid knowledge. For the 0-4 years in rugby coaching experience, 59.1% had knowledge and experience and 71% the appropriate first aid knowledge; for the 17-20 years, 100% had knowledge and experience and first aid, while for higher or equal to 25 years, 45.5% had knowledge and experience. In netball, 90% of injuries consisted of ankle injuries, followed by 70% for knee, 50% for shoulder, 20% for lower leg, and 15% for finger injuries. In rugby, 81% of the injuries occurred at the knee, followed by 50% for the shoulder, 40% for the ankle, 31% for the head and neck, and 25% for hamstring injuries. Six hours of training resulted in a 13% chance of injuries in netball and a 32% chance in rugby. For 10 hours of training, the injury prevalence was 10% in netball and 17% in rugby, while 15 hours resulted in an injury incidence of 58% in netball players and a 25% chance in rugby players. Conclusion: This study highlights the need for coaches to improve their knowledge in relation to injuries and injury prevention, along with factors that act as a preventative measure and promotes players' well-being.

**Keywords :** musculoskeletal injury, sport coaching, sport trauma

**Conference Title :** ICPE 2022 : International Conference on Physical Education

**Conference Location :** Cape Town, South Africa

**Conference Dates :** November 03-04, 2022