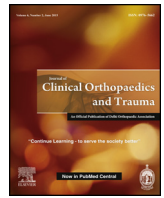




Contents lists available at ScienceDirect

Journal of Clinical Orthopaedics and Trauma

journal homepage: www.elsevier.com/locate/jcot



Awareness among Indian professional football players about injury prevention strategies: A national survey

Rohit Nair^a, Sannasi Rajasekar^{a,*}, Allan Abraham^b, Asir John Samuel^{c,*}

^a Department of Musculoskeletal and Sports Physiotherapy, College of Physiotherapy, Srinivas University, Mangalore-575001, Karnataka, India

^b Physiotherapist, Strive Physio Superclinic, 206-214 Philip Street, Gladstone Central, Queensland 4680, Australia

^c Department of Pediatric and Neonatal Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar University, Mullana-133207, Haryana, India

ARTICLE INFO

Article history:

Received 15 February 2017
Received in revised form 13 November 2017
Accepted 23 November 2017
Available online xxx

Keywords:

Football
Injury prevention
Perception
Training

ABSTRACT

Objective: To determine the awareness and application of the injury prevention strategies by professional Indian football players through Standard Questionnaire Based Survey.

Design: Descriptive Epidemiological Study.

Setting: Professional football clubs in India.

Participants: Among 150 professional footballers playing in India, 109 football players participated.

Procedure: The online questionnaire was made in the Google drive application. An online URL (www.tinyurl.com/futbolscptrc) was made in Google accounts by Google drive. 150 professional footballers playing in India were identified and invited to participate in this descriptive epidemiological online survey. All duly filled questionnaire responses were automatically reached in the Google drive inbox. Descriptive analysis was used for the data analysis.

Results: Questionnaires were distributed to 150 professional players at nine Indian League clubs. 109 players responded, which represents a response rate of 73%. The player age and number of years as a professional footballers were 25 (4) years (range 18–38 years) and 6 (4) years (range 1–16 years) respectively. The players were from one Premier (9), two Division One (6 and 16), and two Division Two (9 and 15) teams.

Conclusions: Most of the professional Indian football players are aware about the injury prevention strategies. However, the application of these strategies is consistently followed by Premier division players.

© 2017

1. Introduction

Football is a high intensity sport characterized by continuous changes of duration and high load unipodal actions. Participation in football imposes high demands on neuromuscular control, agility, and eccentric/concentric strength. Most football injuries are related to the lower extremities, in which muscle injuries are among the major problems.^{1,2} Significant reductions of lower extremity injury risk have been reported to be achieved by intervention programs focusing on intrinsic risk factors.^{3,4} In addition, plyometric training, agility drills and other components of preventive programs were found to be effective in lowering the incidence of injury in football.⁵ An exercise programme called 'The

11+', developed with the support of the World Football Association FIFA, also focuses on injury prevention.⁶ There is a group of exercises designed to help the un-injured soccer player prevent the common injuries which includes dynamic warm-up and key stretching and strengthening exercises that addresses the needs of a soccer player. Warming up and cooling down are strongly favored injury prevention strategies. The purpose of a dynamic warm-up is to increase muscle temperature in order to enhance the effectiveness of muscle contraction, increase oxygen to the muscles, increase tissue elasticity, and create movement patterns for game situations.⁷

The level of general awareness and application of injury prevention strategies have been studied among junior male Malaysian football players.⁸ The main limitation of this study was that only 2 Malaysian sports schools were selected and the results were not a true representative of the injury prevention awareness among junior Malaysian football players.⁸ Hawkins & Fuller in their studies on the professional footballers awareness of

* Corresponding author.

E-mail addresses: rs.rajaseker@yahoo.com (S. Rajasekar), asirjohnsamuel@mmumullana.org (A.J. Samuel).

injury prevention strategies concluded that main deficiencies in awareness of injury prevention strategies for players were identified as use of shin pads during training, carbohydrate intake before and after training and matches, cool-down after training and matches, and flexibility work. These deficiencies indicate a need for wider education of players in injury prevention strategies by their trainer.⁹ Even with professional players, an awareness of injury prevention strategies are lacking.¹⁰ Football being the most popular game worldwide but there is still limited scientific information available concerning the physique and performance qualities of elite Indian footballers. Thus, the aim of the present study was to determine the level of specific awareness and application of injury prevention strategies among professional Indian football players.

2. Methodology

2.1. Subjects

The study protocol was approved by the Institution Ethics and Research Committee. Validated questionnaire were sent to 150 professional male football players in India. Among them, 109 male football players from 9 professional football clubs in India took part in a questionnaire based survey. The questionnaire contained 30 items which were divided into 4 parts. Part A was concerned with the demographic data of the subjects. Part B, part C, and part D were concerned with awareness of injury prevention strategies (use protective equipment, nutrition, warm-ups and cool-downs, flexibility work, and strength training). The online questionnaire was made in the Google drive application. An online URL (www.tinyurl.com/futbolscptrc) was made in Google accounts by Google drive. URL was sent to participants by email, blogs and social networks. An informed consent was taken prior to the survey following which the participants were allowed to just click on the URL which would lead to the questionnaire page. Thus, it was easy for them to just check the questions online without the need for downloading/copying/taking the print out. All duly filled questionnaire responses were automatically reached the Google drive inbox. The players were requested to send the filled questionnaire within 15 days. Meanwhile, a reminder call or e-mail was given to improve the participation in the survey.

2.2. Questionnaire

An adapted questionnaire by Hawkin and Fuller was modified and used as the investigative instrument.⁹ Content validation of the questionnaire was made with the help of experienced sports physiotherapists, football coaches who had more than 10 years of experience in the field of coaching and football players as well. All the comments from the experts were reviewed and appropriate changes were made to improve the overall quality of the questionnaires.

3. Results

The data analysis was done by using SPSS version 20.0. A total of 109 responses were obtained out of the 150 football players (Response rate, 72.7%) included in the questionnaire survey (Table 1–4).

4. Discussion

The questionnaire was given to 150 professional football players out of which 109 players responded which gives a response rate of 73%. The mean age of the players as a professional footballers were 4.22 years with a standard deviation of 2.57 years. Many injuries to

the lower limb among professional Indian football players can be attributed to the lack of awareness towards injury prevention strategies. The importance of application of the injury prevention strategies should be inculcated right from the beginning of the training, and this can be achieved with the right teaching and guidance from the training team which includes the athletic trainers, coaches, sports physician and sports physiotherapist, and sometimes a nutritionist or dietician.

4.1. Protective device

Use of protective equipment has been recognized as a common injury prevention strategy.⁵ Shin-pad is used to protect the lower leg from impact injuries. According to Lees and Lake, shin-pad offer protection from injuries ranging from the severe (such as direct contact between the opponent boot and the legs as in a poorly executed tackle) to the minor (such as bruises and scratches from glancing blows).¹⁰ However, in present study it was found that players were not fully implementing the use of shin pads especially during training. It was shown that 39% of the players always wore shin pads during training whereas all the players wore shin pads during matches. Ironically, the results of this study had shown that the trend of injury during training and matches were consistent. In the previous study by Hawkin and Fuller, the findings were inconsistent with the findings of this study including the area where, in the previous study it was reported that more than 80% players were not encouraged by their coaching staff to wear shin pads during training.⁹

4.2. Nutrition

Proper nutrition is another measure to help prevent injury.¹¹ In terms of the carbohydrate intake by the footballer, it is often inadequate. If the muscle stores of carbohydrate are not adequately replenished, subsequent performance will be impaired.¹³ However, most players reported in this study are lacking the awareness about carbohydrate intake prior to and after training and matches. In the previous study by Hawkin and Fuller, most players (more than 80%) always consumed carbohydrate, and they were given some advice before and after matches and training.⁹ In the present study, most players reported that they were given very little advice on the nutrition intake during the pre and post training and match period. This shows that the professional Indian footballers are very much lacking in their energy store for the purpose of delaying fatigue and for the recovery aid.

4.3. Warm ups and cool downs

Warm up prepares the body physiologically for physical performance, and it is also believed that it will lessen possibilities of injury. The main purposes of warming up are to raise both the general and the deep muscle temperatures and to stretch connective tissue to permit greater flexibility. This reduces the possibility of muscle tear and ligament sprains and helps to prevent muscle soreness. Cooling down permits the return both the circulation and various body functions to pre exercise level, and because blood and muscle lactic acid level decreases more rapidly

Table 1
Level of play among the football players.

Level of play	No. of players
1st division	58 (53%)
2nd division	46 (42%)
3rd division	6 (5%)

Download English Version:

<https://daneshyari.com/en/article/8719236>

Download Persian Version:

<https://daneshyari.com/article/8719236>

[Daneshyari.com](https://daneshyari.com)