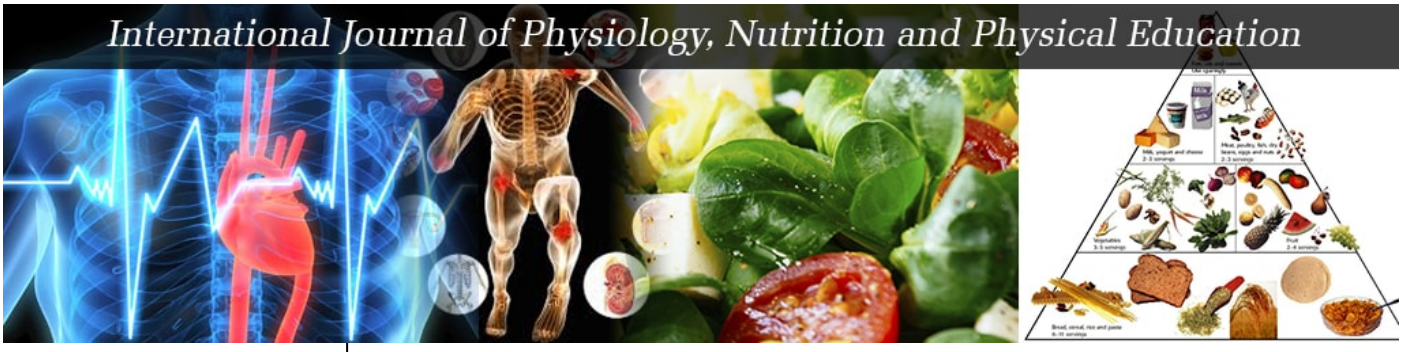

ISSN: 2456-0057
IJPNPE 2023; 8(1): 378-380

www.journalofsports.com
Received: 08-05-2023
Accepted: 13-06-2023

Sedhuraja Malaichamy
Professor, SVJCT's BKL Walawalkar College of physiotherapy, Sawarde, Ratnagiri district, Maharashtra, India

Satyajit kumbhar
Assistant Professor, SVJCTs BKL Walawalkar College of physiotherapy, Sawarde, Ratnagiri district, Maharashtra, India,

Corresponding Author:
Sedhuraja Malaichamy
Professor, SVJCT's BKL Walawalkar College of physiotherapy, Sawarde, Ratnagiri district, Maharashtra, India

Injuries among female football players: A cross-sectional survey exploring the physiotherapy treatment, injury prevention program, football training, awareness, types, incidence, mechanism and recurrence of injury among players in Dervan "Energia" football competition (under-17 girls), 2023

Sedhuraja Malaichamy and Satyajit kumbhar

Abstract
The purpose of this cross-sectional survey is to analyze the physiotherapy treatment, injury prevention program, football training, awareness, types, incidence, mechanism and recurrence of injury among female players in Dervan "Energia" football competition (under-17 girls), 2023. Around 34 girls were taken part at SVJCT's Sports Academy, Dervan, Maharashtra. The questionnaire was framed in Google form that related to football-related injuries and its prevention program through physiotherapy and rehabilitation. The questions were in English and were translated by the coaches into their local language in case of any misunderstanding. Girls responded to their questions before their games. Answers were framed in a spreadsheet and converted into Word format. Results were analysed and suggestions were given to female football players based on their responses.

Keywords: Female football players, injury awareness, injury prevention program, physiotherapy treatment

Introduction
Women's football is a physically taxing contact sport that frequently involves sprinting, jogging, walking, jumping, and changing directions. The physical demands of the sport vary depending on the level of competition (youth, amateur club, elite club, international), but injury incidence rates (IIRs) are high in the women's game at all levels [1]. Even though women's football is increasingly popular and there are more female players than ever, little research has been done on knowledge about physiotherapy treatment, injury prevention programs and the injuries sustained by female football players [2]. The integration of evidence into routine practice is the main focus of current approaches to injury prevention. Influencing players' attitudes and beliefs is one effective strategy. This study's goal was to document players' opinions on injury prevention [3]. Unfortunately, increased participation is also linked to higher injury rates, especially among elite athletes. Injuries in women's football differ from those in men's football in type and severity [4]. Physical inactivity is a public health concern, and integrating physical activity (PA) promotion into healthcare systems is a key change agent. Numerous factors, such as healthcare professionals' PA habits and their familiarity with the PA guidelines, affect PA promotion in everyday clinical practice. Little is known about the extent to which PA is currently promoted in physiotherapy practice or the variables that affect it [5].

Methodology
Study design: Cross-sectional survey.

Methods and Materials
Google Forms was used to create a survey tool. The free, web-based Google Docs Editors suite from Google includes the survey administration tool known as the Google Form.

Only a web application is available for the Google Form. The app enables users to collaborate in real time with other users while creating and editing surveys online. Spreadsheets can be automatically updated with the collected data. This was decided upon in light of the anticipated volume of responses and resulted in the closure of all questions with limited options [6]. Questions about the player's knowledge of football training, the number of injuries, the types of injuries, the mechanism of injury, the likelihood of recurrence of injury, and the injury prevention programme were created specifically for this survey. It also includes questions about warm-up/warm-down and physiotherapy treatments. Representatives from SVJCT Sports Academy and the competition's organiser gave their approval to the entire survey. The survey was started among players after they returned from the matches. The student physiotherapists were encouraged to explain about the importance of this survey to the players.

Results

Among the 34 girls, 5(14.7%), 5(14.7%), 9(26.5%), 7(20.6%), 4(11.8%), and 4(11.8%) are, respectively, 12 years, 13 years, 14 years, 15 years, 16 years, and 18 years old. Football players trained for 1 year, 1.5 years, 2 years, 3 years, 4 years, 5 years, 7 years, and 8 years, respectively, according to the following statistics: 2(5.9%), 1(2.9%), 3(8.8%), 2(5.95), 6(17.6%), 2(5.9%), and 1.9%. Girls trained for an average of 32.4% more than 10 hours per week, 32.4% more than 7 hours per week, and 44.1% between 7 and 10 hours. No injuries, 1, 2, and more than 3 injuries were sustained by 44.1%, 32.4%, 14.7%, and 8.8% of participants during the season, respectively. Girls were more likely to suffer from knee injuries (8.23%), groin injuries (2.59%), hamstring strains (4.11.8%), quadriceps strains (2.59%), and ankle sprains (12.35%). Injuries occurred in 35.3% of cases during games, 32.4% of cases during practises, and 11.8% of cases there were none. The major mechanisms of injuries were contact 11(32.4%), sprinting 11(32.4%), landing 3(8.8%), overuse 2(5.9%), and change of direction 6(17.6%). The most common injuries among players were ankle sprains, with 13(38.2%), knee injuries 5(14.7%), calf strains 3(8.8%), quadriceps strains 2(5.9%), hamstring strains 2(5.9%), and any fracture or dislocation 1(2.9%). There were 76.5% who said they were unaware of injury prevention programmes, 14.7% who said they were aware of them and 8.8% who said they might be. Before the game, 97.1% warmed up properly. 50% of those who needed physiotherapy for these types of injuries showed up, while 47.1% did not.

Discussion

In this cross-sectional study, injury awareness, injury prevention program and physiotherapy treatment were major components to analyse among girl football players during Dervan “Energia” football competition (under-17 girls), 2023 at SVJCT Sports academy, Dervan, Maharashtra.

Soligard T, *et al.* suggested that the risk of severe injuries, overuse injuries, and injuries, in general, was decreased, even though the primary outcome of a reduction in lower extremity injuries did not reach significance. This suggests that young female football players can avoid injuries with a structured warm-up routine [7]. Owoeye OB, *et al.* concluded that the overall injury rate among Nigerian semi-professional football players is high, but the majority of injuries do not cause lost time. The majority of the injury pattern matches earlier studies. To develop injury prevention programmes among African athletes, more prospective studies are required [8]. Lion A, *et al.* recommended that a digital database like the Training and Injury Prevention Platform for Sports (TIPPS) could be used to improve the methodology for collecting injury data. This system enables stakeholders to share critical information, monitor players, provide risk factor warnings, and raise awareness of the injury problem in addition to allowing for the systematic recording of injury data (as well as training load) by the players or medical staff [9]. Hulawale K, *et al.* concluded that the use of physiotherapy camps and seminars might be used to educate recreational football players about the value of physiotherapy in injury prevention and post-injury recovery. By providing them with a physical as well as a mental boost and motivation, various physiotherapy treatment methods may assist improve recreational footballers' performance over the long run. Additionally, it is crucial to have a physiotherapist on staff at all football training facilities to instruct the players on the proper techniques and how often, when, and what sort of exercises they should perform. This will reduce the likelihood of injuries developing [10].

Limitations

There were a few limitations in this study: Lack of cooperation among coaches to circulate the questions to players through WhatsApp group. Lack of mobile phones was among the female players. Questions were prepared in English that were to be translated to their native language among players.

Conclusion and Suggestions

This cross-sectional survey concluded that the awareness of injury rate among girls was minimal. Most of the girls were aware of the warm-up program before the match. While half of the girls were known about physiotherapy and the remaining girls did not know about physiotherapy. The most common injuries were ankle sprain and knee injuries among the players. Most of the injuries have occurred during practice hours than play hours. The major mechanisms of injuries were contact, sprinting and landing. This cross-sectional survey suggested that female football players should be aware about injury rates equivalent to male players. Moreover, girl players should be referred to physiotherapy after suffering from injury.

References

1. Horan D, Büttner F, Blake C, *et al.* Injury incidence rates in women’s football: A systematic review and meta-analysis of prospective injury surveillance studies. British Journal of Sports Medicine. 2023;57:471-480.
2. Zech A, Wellmann K. Perceptions of football players regarding injury risk factors and prevention strategies. PLoS One. 2017 May 1;12(5):e0176829. DOI: 10.1371/journal.pone.0176829. PMID: 28459845; PMCID: PMC5411057.
3. Junge A, Dvorak J. Injuries in female football players in top-level international tournaments. Br J Sports Med. 2007 Aug;41 Suppl 1(Suppl 1):i3-7. PMID: 17646248. DOI: 10.1136/bjsm.2007.036020; PMCID: PMC2465250.
4. Geertsema, Celeste, Geertsema, Liesel, Farooq, Abdulaziz, *et al.* Injury prevention knowledge, beliefs and strategies in elite female footballers at the FIFA Women’s World Cup France 2019. British Journal of Sports Medicine. 55. bjsports-2020; c2021. 10.1136/bjsports-2020-103131.

5. Lowe A, Littlewood C, McLean S, Kilner K. Physiotherapy and physical activity: A cross-sectional survey exploring physical activity promotion, knowledge of physical activity guidelines and the physical activity habits of UK physiotherapists. BMJ Open Sport Exerc Med. 2017 Oct 30;3(1):e000290. DOI: 10.1136/bmjsem-2017-000290. PMID: 29119004; PMCID: PMC5663264.
6. https://en.wikipedia.org/wiki/Google_Forms (Accessed from Google on 03/06/23)
7. Soligard T, Myklebust G, Steffen K, Holme I, Silvers H, Bizzini M, *et al.* Comprehensive warm-up programme to prevent injuries in young female footballers: A cluster randomised controlled trial. BMJ. 2008 Dec 9;337:a2469. DOI: 10.1136/bmj.a2469. PMID: 19066253; PMCID: PMC2600961.
8. Owoeye OB, Aiyegbusi AI, Fapojuwo OA, Badru OA, Babalola AR. Injuries in male and female semi-professional football (soccer) players in Nigeria: A prospective study of a National Tournament. BMC Res Notes. 2017 Mar 21;10(1):133. DOI: 10.1186/s13104-017-2451-x. PMID: 28327163; PMCID: PMC5361784.
9. Lion A, Theisen D, Windal T, Malisoux L, Nührenbörger C, Huberty R, *et al.* Moderate to severe injuries in football: A one-year prospective study of twenty-four female and male amateur teams. Bull Soc. Sci. Med Grand Duche Luxemb. 2014;(3):43-55. PMID: 25571672.
10. Hulawale K, Haral DP. Awareness about the Preventive Measures for Injuries in Recreational Football Players; c2016.