

The Role of Sports Medicine in Preventing and Managing Common Injuries in Athletes

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Abstract: Many international athletic organizations have proposed injury-reduction strategies. These practices include injury screening, emergency medical care, along with injury management measures prior to return-to-play. The extent to which these methods are being adopted in a developing nation like Iraq is uncertain. This paper was contributed to study the role of sports medicine in preventing and managing common injuries in athletes. Our paper focused on the role of sports medicine in treating injured athletes in Iraq. To build up, our methodology's study was enrolled rate of acute injuries for 80 cases based on organized the demographic characteristics of sports players with three basics which are football, athletics, and handball. The data were analysed using the SPSS program. This study was presented a cumulative analysed and covered all 80 cases during period from 17th January 2022 to 19th March 2023. The findings demonstrated a lack of pre-season screening and return-to-play preparedness for all injured athletes. Furthermore, for the majority of injury categories, best practice standards were not followed. This study identified constraints, including sports resource providers' inadequate knowledge, insufficient and insufficiently specialized facilities for treating injured athletes, and policies mandating treatment for injured athletes. These obstacles hinder the implementation of best medical practices.

Keywords: Medicine Sport, Injured Athletes, SPSS Program, Emergency

Introduction

Sports medicine has a vital role in preventing and treating common injuries among athletes. Collaborating closely with athletes, coaches, and trainers, sports medicine professionals devise injury prevention strategies (Alonso et al., 2015). They evaluate an athlete's biomechanics, technique, and physical fitness to pinpoint potential risk factors and propose proper preventive measures, including warm-up routines, protective gear, and conditioning exercises. Sports medicine specialists educate athletes, coaches, and parents on the risks associated with specific sports and activities, as well as the importance of injury prevention measures (Annear et al., 2019; Bleakley, 2011; Bouchard & Dexter, 2005; Brooks et al., 2016; Casa et al., 2012; D'Souza, 1994).

Prior to engaging in sports, athletes undergo pre-participation evaluations performed by experts in sports medicine. These assessments allow for the detection of pre-existing conditions, such as physical limitations or medical concerns, that may heighten the likelihood of injury. Subsequently, suitable modifications or precautions may be proposed based on these results (Drew & Finch, 2016).

When athletes suffer acute injuries such as sprains, fractures, or dislocations, sports medicine professionals are trained to offer on-field or on-court care. They evaluate the injury's severity, provide first aid, and determine if further medical treatment is required (Bullock, 2021; Pol, 2019; Rigamonti, 2020). They may immobilize the injured area with a splint, tape, or brace, while also arranging for immediate medical follow-up (Emery & Pasanen, n.d.).

In addition, these programs are designed to meet individual needs and may involve physical therapy, exercises and modalities to improve strength, flexibility and function. Furthermore, they play an essential role in monitoring and evaluating injury data (McCrory et al., 2017). Through conducting injury surveillance, trends, risk factors, and common mechanisms of injury are identified. This data is then used to inform research and to develop evidence-based guidelines for injury prevention and management strategies. As such, sports medicine is vital in promoting the overall health and well-being of athletes (Mayer et al., 2012; Freitag et al., 2015; Fuller & Walker, 2006). Focusing on injury prevention, management of acute injury, rehabilitation, education, and research assists athletes in maximizing performance whilst reducing the likelihood of typical injuries. The literature reviews indicate that sports medicine has the potential to prevent injuries in athletes through implementation of several strategies (Ardern, 2022; Lam, 2020; Ramkumar, 2022). Furthermore, an additional study highlights the significance of pre-participation physical assessments in identifying athletes susceptible to injury and teaching injury avoidance. Finally, a study from 1990 suggests that overuse injuries can be averted through scientific coaching and modern sports medicine techniques (Gabbett, 2016). A Spanish study emphasised the necessity of comprehending the link among training load, injury, fitness, and performance, and contemplating various factors, comprising physical, mental, technical, tactical, and lifestyle abilities (Gouttebarger et al., 2016). The study presents evidence that implementing multifactorial injury prevention programs, ankle supports, and shock-absorbing insoles could lower the risk of injuries in sports like football, basketball, and handball (Häggglund et al., 2009).

Methodology

Our paper focused on the role of sports medicine in treating injured athletes in Iraq. To build up, our methodology's study was enrolled rate of acute injuries for 80 cases based on organized the demographic characteristics of sports players with three basics which are football, athletics, and handball. The data were analysed using the SPSS program. This study was presented a cumulative analysed and covered all 80 cases during period from 17th January 2022 to 19th March 2023.

The study examined the impact of injury avoidance and management practices through a descriptive prospective cohort research approach. The research collected data on the treatment of sports-related injuries over a year, from immediate treatment to return-to-sport. Information was provided to athletes, coaches, managers, and health care providers, with their agreement obtained for monitoring and follow-up during training and competition at various sports facilities in Iraq over a one-year research period. Primary basic demographic data collection forms identified and documented eighty time-loss injuries throughout the study.

The research utilized a data collection form consisting of five sections: demographics, preventative care, emergency treatment, intermediate care and return-to-sports. Demographic data and emergency injury management information were recorded via observation and interviews and included in the immediate injury data. The five principles for providing emergency injury care are: prompt response to the injury on the field, urgent field assessment, correct removal of the athlete from the playing area, treatment, and evaluation on the side-line. These criteria ought to be implemented to ensure optimal and objective injury care.

Result and Discussion

Table 1. Demographic Characteristics Data of Basic Sports Sections

Sports sections	Age (years)
Athletics	20.12 ± 4.7
Football	24.11 ± 2.16
Handball	26.71 ± 4.33

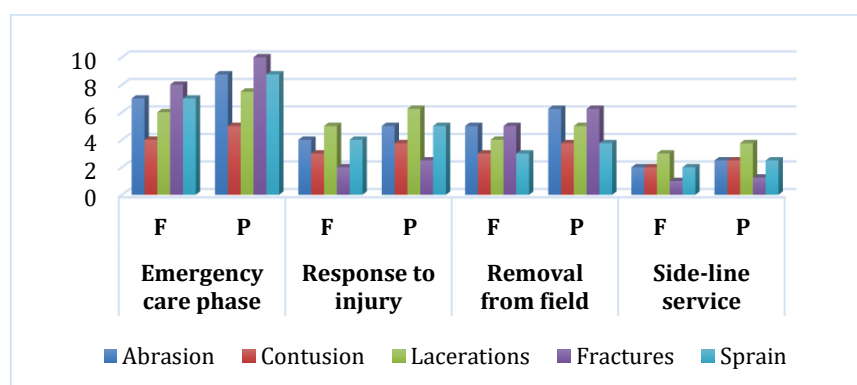


Figure 1. Distributions of Injuries Players during Emergency Phase

Table 2. Identify Injury Status During Payers During Care Phase

Injury status	Care period, (yes)	Care period, (No)
Abrasion	20	7
Contusion	15	5
Lacerations	11	3
Fractures	8	3
Sprain	6	2
Total	60	20

Table 3. Determination of Treatment Methods by Duration of Field Care

Treatments Methods	Use, F (%)	Non-use, F (%)
Ice, Massage & Bandage	6(7.5%)	4(5%)
Painkillers	10(12.5%)	5(6.25%)
Bandage only Stretch	8(10%)	7(8.75%)
exercises	5(6.25%)	2(2.5%)
spray & massage	7(8.75%)	3(3.75%)
Surgery	14(17.5%)	9(11.25%)
Total	50 (62.5%)	30(37.5%)

Our study is the first of its kind for Iraqi athletes' sports medical practices, and it is critical for removing any impediments to the right adoption of optimal sports medicine practices. Previous research has underlined the need of pre-participation athlete assessment as a safety measure (Hassanmirzae et al., 2017). According to our findings, only 15% of time-loss injuries occurred to athletes who underwent some type of pre-participation examination. The absence of mandated pre-participation medical assessment of athletes in Iraq, as well as documenting of athlete injury situations, implies that these tactics are not standard practices within Iraq's sports communities, necessitating practitioner and athlete sensitization (Heyworth et al., 2016).

Recent literature reviews have observed that sports-related injuries can have enduring consequences for individuals. It has been noted that such injuries can result in lasting disabilities and handicaps, with prognostic significance attributed to variables such as gender and sport type. Additionally, research has highlighted the potential for osteoarthritis in former athletes due to injuries sustained in weight-bearing joints such as the knee and ankle, as well as associations between spinal pathologies and certain sports (Hodge & Safran, 2002). Several British reviews argue that athletics lack preventative measures and education, resulting in both acute and chronic injuries that can have devastating short-term and long-term effects on athletes.

Italian studies have established that sports-related injuries can affect an athlete's ability to return to their sport, causing them to experience anxieties associated with re-injury, concerns about being unable to perform to their pre-injury standards, feelings of isolation,

a lack of athletic identity, insufficient social support, pressure to return to sport, and self-presentational concerns about the prospect of appearing unfit or lacking in skill in relation to competitors. Fear of reinjury and pain catastrophizing are significantly correlated with athletes' confidence in their ability to return to their sport, whilst higher motivation, self-efficacy, and psychological "readiness" positively correlate with returning to sport, according to French reviews. Additionally, certain studies have shown that internal motives for resuming competition were linked to a beneficially renewed outlook on participating in sports. In contrast, external motives for returning to sports were linked to amplified anxiety and apprehension (Liu et al., 2012).

Conclusion

In summary, our study concur that psychological factors are significant to an athlete's capacity to recover after sustaining an injury. Our paper suggest that sports-related injuries can have significant long-term consequences and that preventative measures and education are necessary to reduce their prevalence. The development of sports legislation and strategies for the prevention and management of sports injuries is also essential in Iraq.

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