

PREVALENCE OF SPORTS INJURIES IN COACHES – AN OBSERVATIONAL STUDY

Akash Tandale¹, Ashwin Kshirsagar^{2*}, Rohit Dawande², Mayuresh Padalkar², Harsha Wadhwani³, Siddhi Borana³, Prajakta Taksale⁴, Yogita Padaswan⁴

¹Department of Sports Physiotherapy, MGM School of Physiotherapy, MGMIHS, Chh. Sambhajinagar, Maharashtra, India. ORCID ID: <https://orcid.org/0009-0007-4524-0541>

²Department of Sports Physiotherapy, MGM School of Physiotherapy, MGMIHS, Chh. Sambhajinagar, Maharashtra, India.

³Department of Musculoskeletal Physiotherapy, MGM School of Physiotherapy, MGMIHS, Chh. Sambhajinagar, Maharashtra, India.

⁴Department of Physiotherapy, MGM School of Physiotherapy, MGMIHS, Chh. Sambhajinagar, Maharashtra, India.

**Corresponding Author: Ashwin Kshirsagar*

Associate Professor, Department of Sports Physiotherapy, MGM School of Physiotherapy, MGMIHS, Chh. Sambhajinagar, Maharashtra, India. E-mail Address: ashwink24788@gmail.com

ABSTRACT:

PURPOSE: Coaches plays integral part in the development of a sports person. Coaches have a direct relationship with the players, most of the times they physically join the training sessions that may be of low to high intensity. The involvement of the coaches in training sessions may cause injuries in them **AIM:** To evaluate the prevalence of sports injuries in coaches **METHOD:** The information was gathered from the 198 coaches between the ages of 25 - 45 who train players for competitive sports. The coaches were requested to fill a questionnaire via Google form method. **RESULT:** 198 coaches were included in the study. Sports injuries in coaches was found to be 86% in this study. Injuries to the lower extremities were more common than those to the upper extremities. Male coaches injured at a more frequency than female. Around 14% of coaches experienced mental stress as a result of their injuries. **CONCLUSION:** Prevalence of sports injuries was 86% in this study, Injury risk factors found in this study were male gender, age, psychological and stress related issues.

KEYWORDS: Prevalence, Sports injuries, Coaches, Survey

1.1 INTRODUCTION

Sports participation is widely assumed to be good for one's well-being and injuries

go with the territory when you play sports. However, the phenomenon of physical injury is always a problem for athlete and coaches besides all the benefits to participating in sports program both in public and professional level. ⁽¹⁾ The ever-increasing popularity of sports around the world has made the "sports industry" very competitive and financially profitable for athletes and coaches, with many aspiring to elite status. As a result, sports have become more physically and emotionally demanding, requiring more training and practice regimens, and exposing individuals engaging in this search to a larger risk of injury. ⁽²⁾ ⁽³⁾

Physical activity is the most common source of positive sports effects; however secondary effects such as psycho social and personal development can also be beneficial to one's health. ⁽⁴⁾ Regular participation in sports or physical activity has been shown to be a substantial positive predictive predictor for overall health and well-being in studies. There are a range of preventive strategies available for a variety of injuries in different sports, with the majority of them focused on 'protective' equipment (such as stability devices and attenuating devices) and training methods (i.e., stretching, power, coordination) ⁽⁵⁾ ⁽⁶⁾

Coaches should gain a working knowledge of all areas associated with performance enhancement as they are the key persons responsible with developing athletes and assisting them in achieving their goals. Sports administration, sports medicine, strength and conditioning, and sports psychology are just a few of the fields that can help coaches when it comes to physically and mentally developing their athletes. Risk management, injury prevention, athlete development are some key components. In order to teach athletes about skill development and prepare them for top performance, coaches must get familiar with the aforementioned components. ⁽⁸⁾

Even when sufficient safeguards are taken, participating in sports carries a certain level of danger. ⁽⁹⁾ Coaches are responsible for all areas of their athletic programmed to some extent.

Coaches, for example, must be concerned for their players' well-being as well as the maintenance of athletic equipment and facilities. Risk management and the controlled evaluation of the athletic environment encompass these tasks. Coaches must evaluate risk management in the sporting environment as part of their administrative duties. While risk may never be completely eradicated, these individuals must be aware of the possibility of liability exposure and take steps to reduce it. As a result, coaches must make a concerted effort to keep track of all aspects of their athletic programmers. ⁽⁸⁾ ⁽⁹⁾

Coaches can reduce the amount of risk in their programs by developing good management practice and maintaining current on changes in the external environment. It is critical for coaches to have an optimistic attitude on their programmed futures. Athlete struggle to achieve their full potential for number of reasons including a lack of belief. This highlights the importance of sports coaches. Coaches must partake in some physical exercises related to the sport in order to coach the players, which may result in the injury. So, they must get involved physically in the practicing sessions which also make them prone to get injuries as of athletes.

(8) (9) (10) The rate of injuries in coaches are mostly not taken into consideration. There have been few studies conducted that have reported the frequency of injuries among coaches. So, there is a need to know the prevalence of various injuries and its nature that occur in coaches. In order to train the athlete without causing any pain, discomfort, or disruption, it will be beneficial for them.

METHODOLOGY

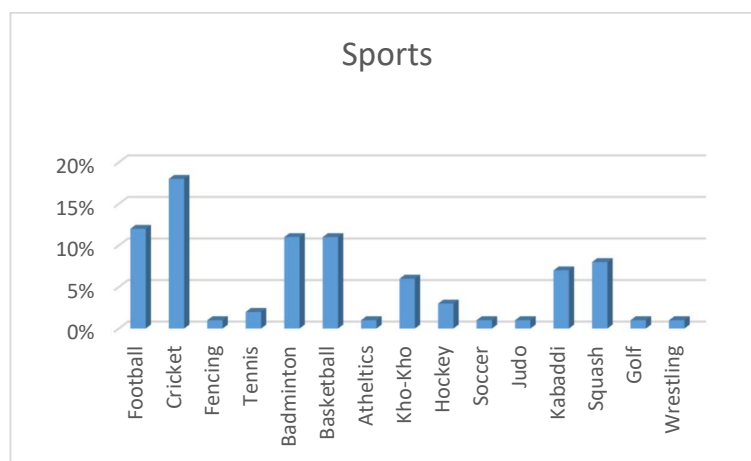
From 1 April 2021 to 31 March 2022, coaches in India participated in an observational study using a google form. Before participating in this study, each subject gave informed consent. The study included 198 coaches, with the exception of coaches who have retired from coaching, and included coaches between the ages of 25 and 45 coaches at the district level and above, and coaches who have experienced sports-related injuries. The form include demographic information, sport participation, and injury history were among the questionnaire's numerous domains. Name, age, sex, address, dominance, height, and weight were among the demographic details. Sports participation covered the sports participated in, the number of years spent participating in the sport, the level of competition, the amount of training, type of injury, quality of pain, and how the injury has affected the coaching sessions. The form also asked about how much stress the coaches are under as a result of their injuries.

1.2 RESULTS

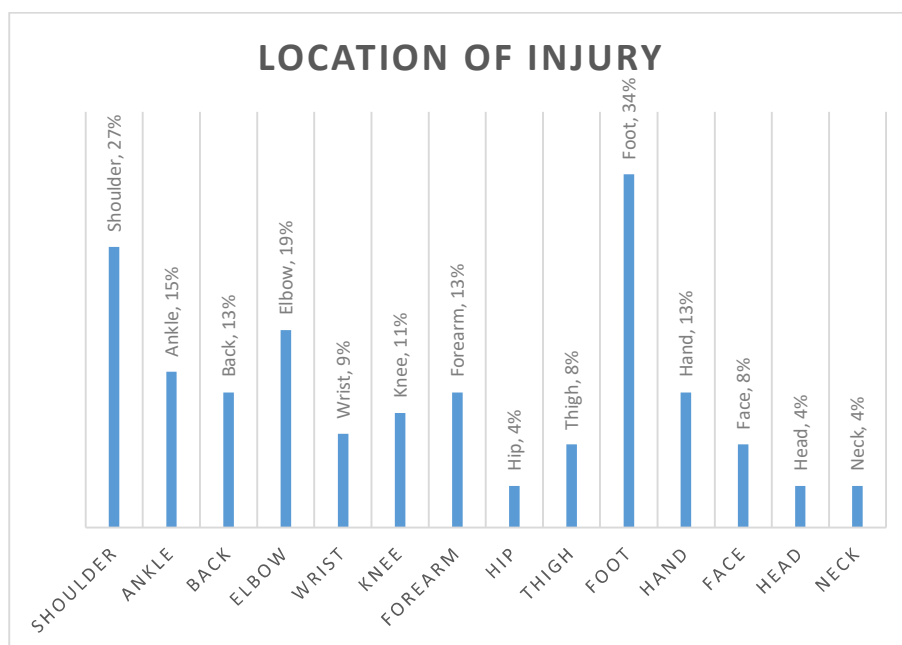
Online survey was conducted at stadiums and athletic training centres in India. The research includes coaches from professional sports such as boxing, cricket, football, hockey, wrestling, swimming, and coaching activities, and their injuries were registered. The report includes injuries sustained as a result of coaching activities. Total 198 coaches completed the survey in which 30% coaches were female and 70% were male coaches.

The questionnaire included questions was about hand and leg dominance, with the coaches showing a 90% right hand and 10% left hand dominance and a 76% right leg and 24% left leg dominance. The questionnaire included information about the injury rate, which showed that 86% of coaches was having injuries while 14% are injury-free.

The rate of coaching has been evaluated, and it is found to be 4% at the national level, compared to 74% at the district level, 16% at the state level, and 6% at the international level for sports-related injuries.



Bar graph.1. The graph above demonstrates the sports that they played, with the most coaches participating in basketball, badminton, cricket, and football.



Bar graph.2. The above graph shows location of injury, the results showing that most common site of injuries are shoulder, elbow and foot.

Table no.1. The below table shows the data of different parameters and the response provided by the coaches. Which states that 41% of coaches feel pain during practise. Severity was seen to be moderate in 51% of coaches.

Sr. no.	MCQ's QUESTIONS	None	During practise hours	After practise hours	While resting	
1.	Coaches feel pain during practice	12%	41%	33%	14%	
		Mild	Moderate	Severe	Cannot play	
2.	Severity of pain	22%	55%	14%	9%	
		Cramping	Dull aching	Sharp shooting	Throbbing	Diffuse
3.	Quality of pain	45%	23%	13%	14%	5%
		2 days to 1 week	2 week to 3 week	1 month to 3 month	>3 months	
4.	Duration of injury	27%	9%	21%	43%	
		Rest	Refer doctor	Medication	Exercise	
5.	What coaches do to relive pain	24%	32%	33%	11%	
		None	Medical doctor	Physiotherapist	Others	
6.	Practitioners they previously consulted for this condition	13%	23%	28%	36%	
7.		No reduction	To a minor extent	To a major extent	To a moderate extent	
	Coaches has reduced their training volume due to injury.	20%	24%	40%	16%	

		Daily	4-5 times a week	2-3 times a week	No	
8.	How frequently they do warm up before coaching.	26%	33%	31%	10%	
		Daily	4-5 times a week	2-3 times a week	No	
9.	How frequently they do cool down after coaching.	16%	36%	19%	29%	
		No effect	To a minor extent	To a major extent	Cannot participate	
10.	How much effect does pain has on their coaching sessions.	44%	31%	20%	5%	
		Yes	No	Sometimes	During competition	
11.	coaches experience any stress.	16%	34%	34%	16%	
		Yes	No	To a major extent	To a minor extent	
12.	Any sports injury in coaches have led them to mental stress.	17%	52%	16%	15%	
		Yes	No	Rarely	Frequently	
13.	Any coaches have been experiencing mental stress due to injury	18%	33%	16%	33%	
		Yes	No	Rarely	Frequently	

14.	Does coaches think their stress has any effect on their coaching	22%	34%	17%	27%	
		Increased	Decreased	Undisturbed	Unaffected	
15.	what effect has mental stress had on coaches.	16%	28%	18%	38%	

1.3 DISCUSSION

The objective was to find out how sports injuries were among coaches who were working with athletes. The purpose of this study was to look into all of the factors of on-field training that could impact coaches physically and mentally. As sports involved into organized activity, coaches began working more closely with athlete. One of the literatures in this study, Karlene Joy Headley-Cooper examined to see what renowned coaches thought about the athlete-centered approach to teaching. In semi-structured interviews, ten current coaches of female athletes in Canadian national team sports were interviewed (five male and five female). To examine the data subjectively, inductive and deductive analyses were performed. They discussed an athlete's holistic perspective, coaching practises that incorporate athletes in the coach-athlete partnership, specific values as important components of athlete-centered coaching, and a success philosophy that extends beyond physical achievement. Coaches also highlighted obstacles to implementing athlete-centered coaching behaviour. Coaches are more likely to physically participate in play during training sessions since they have a close relationship with the athletes ⁽¹⁰⁾.

A study conducted by CA Emery and H Tyreman examined the rate of young adolescents participating in sports, as well as sports injuries, risk factors, and sports practises. They arrived to the conclusion that high school students feel there is a significant prevalence of sports activity and injury. The study found that there was a high prevalence of injuries during play, and that the coaches were physically injured to a lesser extent than the participants. Most athletes do some form of warm-up activity before doing particularly strenuous physical exercises; however, this is typically done without a systematic strategy. In contrast to amateur athletes, top athletes believe that warm-up is an important element of their preparation because it has been demonstrated to improve performance. Warm-up is designed to help athletes achieve better results in their subsequent athletic performance while also reducing the risk of injury. ⁽¹¹⁾

Another study by Ieleni Sreekaarini, Charu Eapen, and Zulfeeque CP stated that 65% of adolescent players suffer sports injuries, with the majority occurring between the ages of 14 and 17; there is a need to learn more about the prevalence, nature, and numerous factors that contribute to injuries in sports like football, hockey, cricket, athletics, and basketball, which

are the most frequently played. Similarly, coaches suffer injuries as a result of a lack of awareness of warm-up and cool-down exercises among them. In this study the common sports that coaches have trained are cricket, badminton, football, basketball and tennis while it was inferred from the data collected, that 89% of coaches were injured during practice hours. If we look at the statistics for duration of injury, we can see that 43% of coaches were injured for more than three months, while two-thirds were injured for less than a week, and only 9% were injured for two to three weeks, according to the study ⁽¹⁾.

In a study by Ioannis Stavropoulos et.al, stated that field management techniques, sport science, biology, injury prevention/risk management, and field training are the competencies that track and field coaches should have in order to do their jobs. In this study, the field management practice aspect was shown to be the most important. Coaches are involved in management tactics and on-field training in order to perform their duties more effectively. As a result, we can conclude that they are constantly under mental distress on the field throughout training hours or on competition day. According to the results of the survey, 17% of coaches have mental stress as a result of their ailments, while 15% experience minor effects. A significant number of coaches were experiencing issues with their training patterns. This study suggests that more research employing a variety of outcome measures, as well as more systematic and longitudinal assessments of the affected domains in coaches, is needed to better understand the finer points of training quality and make a more accurate conclusion. This will support in the athlete's on-field performance by allowing coaches and support staff in managing the athlete appropriately. The study also instructs therapists to take a multi-dimensional approach to coaches in order to increase coaches' recovery and athletes' performance around the world ⁽¹⁴⁾.

CONCLUSION

In order to determine the prevalence of sports injuries among coaches, injuries to the lower extremity were more frequent than those to the upper extremity and the following study concludes that 86% of coaches have experienced a sports injury in accordance to injuries, 14% of coaches experience emotional stress.

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