

Exploring Cricket Injuries, Especially Side Strain, Among North Indian Club Cricketers: A Close Look

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ABSTRACT

Objectives: This study investigates the prevalence, nature, and management of cricket-related injuries, with a special focus on side strains among club cricketers in North India. Cricket, a sport deeply ingrained in Indian culture, presents various physical challenges to players, particularly bowlers. Side strains, characterized by acute pain in the side muscles, often result from the repetitive and intense nature of cricketing actions such as bowling and batting. This study aims to identify common injury patterns, explore the existing management practices, and suggest improvements based on empirical evidence.

Methods: For this purpose, randomly selected 206 club cricketers aged 18-35 years were collected from various cricket clubs in North India.

Results: Our research involved a detailed survey and physical examination of club cricketers, focusing on their injury history and management practices. Findings revealed a high prevalence of side strains, especially among bowlers, and highlighted the inadequacies in current management strategies.

Conclusion: The study underscores the need for improved injury prevention protocols and rehabilitation strategies to enhance player performance and longevity in the sport.

Key Words: Cricketers. Sports specific injuries. Side Strain

1. INTRODUCTION

Cricket, one of the most popular sports in the world, especially in countries like India, Australia, and England, is a sport that combines physical endurance, agility, and strategic acumen. The game, played over formats ranging from five-day Test matches to single-day games, places significant physical demands on players, particularly bowlers who perform repetitive and high-intensity actions. Injuries are an inevitable part of cricket, affecting players across all

formats and levels. These injuries range from acute traumatic injuries to chronic overuse injuries. Among these, side strains are particularly prevalent and problematic, especially for fast bowlers. A side strain is a muscle injury that occurs when the internal oblique muscles or intercostal muscles are overstretched or torn. This type of injury can significantly hinder a player's ability to perform and can recur if not properly managed. The focus of this study is to explore the incidence and management of

side strains among club cricketers in North India. Club cricket serves as a critical stepping stone for players aspiring to reach professional levels, making the health and performance of these athletes particularly important. However, despite the critical role that injury prevention and management play in player development, there is a lack of comprehensive research focusing on club cricketers in this region ^[1,2]..

This study aims to fill that gap by providing a detailed analysis of the prevalence and management of side strains among North Indian club cricketers. We will examine the factors contributing to these injuries, assess the effectiveness of current management practices, and suggest evidence-based improvements. By understanding the injury patterns and management strategies, we hope to contribute to the development of better preventive measures and rehabilitation protocols that can enhance the performance and longevity of cricketers at the club level.

2. MATERIALS AND METHODS

This research adopts a descriptive analytical approach, involving both quantitative and qualitative methods to gather comprehensive data on cricket injuries. The study design includes a combination of surveys, physical assessments, and in-depth interviews with players and physiotherapists.

Participants

Participants in this study were club cricketers aged 18-35 years from various cricket clubs in North India. Selection criteria included active participation in club cricket for at least two years and a history of cricket-related injuries. Exclusion criteria included players with chronic health conditions unrelated to cricket and those who had not experienced any significant injuries during their cricketing career. Two hundred and six cricketers presently playing under-16 and under-19 Cricket completed the questionnaire with the aid of

the researcher. All 196 of these cricketers, consisting of 126 all-rounders, 24 batsmen, 26 bowlers and 20 wicket-keepers, have played provincial school cricket, with 24 of them having represented their senior provincial teams and 19 having played nationally at an under-17 or under-19 level. They had a mean age of 17.6 ± 0.7 years, just one year younger than the lower limit of group.

Data Collection

Data collection was carried out in two phases: Survey and Questionnaire. A structured questionnaire was developed to collect data on player demographics, cricketing experience, training routines, injury history, and management practices. The questionnaire was pre-tested to ensure clarity and reliability. It included both closed-ended and open-ended questions to capture qualitative insights.

3. RESULTS

Respondent Demographics

The survey received a total of 206 responses. A significant majority of these respondents, 196 to be precise, were under the age of 19, while the remaining 10 fell under the age of 16. This data set indicates a strong representation of young cricketers. The age distribution highlights that cricket is a sport that engages younger athletes significantly. In terms of gender distribution, 143 respondents identified as male, 33 as female, and 30 as transgender. This diverse sample provides a broad perspective on the experiences and challenges faced by young cricketers across different demographics. The representation of different genders ensures that the data captures a wide range of experiences and is reflective of the diverse nature of participants in youth cricket. The significant number of responses also suggests that cricket is a popular sport among the younger population, necessitating a focus on their health and safety.

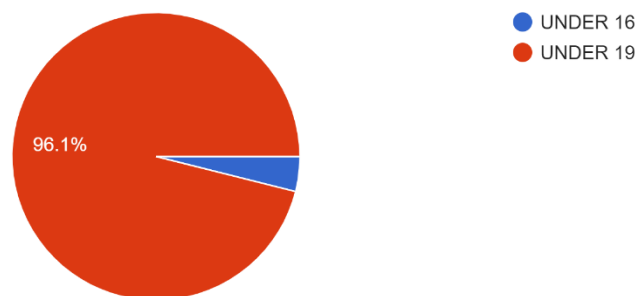


Figure 4 Respondent Demographics

Experience of Cricket-Related Injuries

A substantial portion of the respondents, 187 out of 206, reported experiencing cricket-related injuries in the past year, highlighting the physical risks associated with the sport. This high incidence of injuries suggests that playing cricket at a young age can be physically demanding and potentially hazardous. Among the types of injuries reported, side strain emerged as the most prevalent, affecting 165 respondents. This was followed by shoulder injuries, reported by 22 respondents, and ankle sprains and hamstring strains, each reported

by 8 respondents. The high incidence of side strains suggests that this particular injury is a common issue for cricketers, possibly due to the repetitive and strenuous nature of bowling and batting. The shoulder injuries and strains further underline the physical toll that cricket can take on young athletes, pointing to specific areas of the body that are most vulnerable. These findings indicate a need for targeted interventions and training programs to prevent such injuries and support young cricketers in maintaining their health and performance [4].

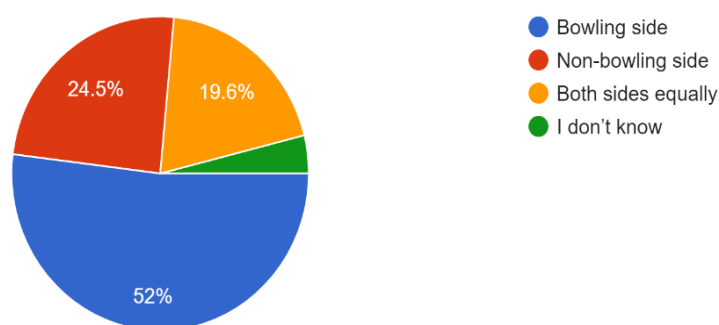


Figure 5. Experience of Cricket-Related Injuries

Recurrence of Injuries

When examining the recurrence of injuries, 127 respondents reported experiencing injuries multiple times, indicating chronic issues for a significant number of young athletes. An additional 50 respondents experienced a recurrence of their injuries at least once. Interestingly, 26 respondents claimed they had not experienced any

cricket-related injuries, providing a contrast to the majority. Only one respondent indicated that he rarely or never experienced a recurrence after an initial injury. This data points to a worrying trend of recurring injuries among young cricketers, emphasizing the need for effective injury prevention and management strategies. Chronic injuries can severely impact an

athlete's performance and long-term participation in the sport, suggesting that current prevention and treatment measures may be insufficient. The high rate of recurrence indicates that once injured, young cricketers are likely to suffer from

the same issues repeatedly, highlighting the need for better rehabilitation and monitoring practices. This recurrence can also affect their confidence and willingness to continue in the sport, potentially reducing their overall engagement and enjoyment [3].

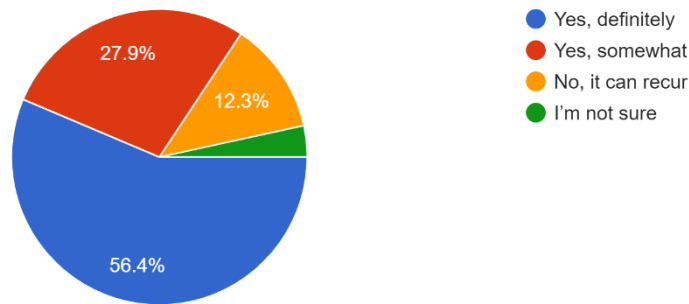


Figure 6. Recurrence of the injuries with respect to side strain

Workload Management

Regarding workload management, the survey revealed that 100 respondents consistently kept a record of the number of overs they bowled, which suggests a level of discipline and awareness about managing their physical workload. Another 49 respondents kept records occasionally, while 35 did not keep records at all. Interestingly, 20 respondents mentioned that their coach kept records for them. This variability in record-keeping practices indicates differing levels of self-management and possibly differing levels of access to coaching resources. Proper workload management is crucial for preventing overuse injuries, which appear to be common among young cricketers. The practice of keeping detailed records can help in identifying patterns that lead to injuries and allow for timely interventions. Those who do not keep records may be at a higher risk of overuse injuries due to lack of monitoring. The involvement of coaches in record-keeping highlights the importance of support systems in managing young athletes' workloads effectively. Ensuring that all young cricketers have access to such support can help in preventing injuries and promoting long-term health and success in the sport.

Immediate Action for Side Strain

In terms of immediate action taken for side strains, the most common approach among respondents was applying an ice pack every two hours, with 105 respondents opting for this method. Another 66 respondents preferred to massage the affected area immediately, while 21 chose to apply heat to the area. A smaller group of 12 respondents continued bowling to keep the muscles active, which could be risky and potentially exacerbate the injury. These varied responses reflect different levels of knowledge and possibly access to appropriate medical advice and resources for treating injuries. The preference for applying ice suggests a basic understanding of acute injury management among many respondents. However, the choice to continue bowling highlights a concerning practice that can lead to further damage. The variations in immediate treatment approaches indicate the need for standardized guidelines and education on injury management for young athletes. Ensuring that all young cricketers are aware of the best practices for handling injuries can help in reducing the severity and duration of their recovery periods.

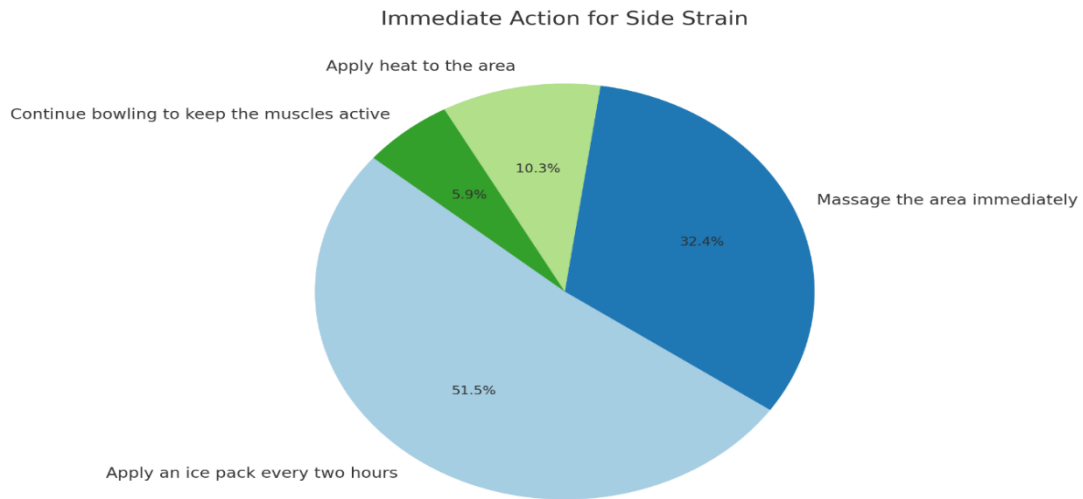


Figure 7. Immediate Action for Side Strain

Belief about Recurrence of Side Strain

When it comes to beliefs about the recurrence of side strains, 115 respondents felt that side strains would definitely recur, while 57 believed it somewhat likely that side strains would recur. Conversely, 25 respondents believed that side strains do not typically recur, and 7 were unsure about the recurrence. These beliefs about injury recurrence can influence how athletes manage their recovery and training, with those expecting recurrence possibly being more cautious and those who don't possibly taking more risks. The expectation of recurrence among the majority suggests a

prevalent understanding of the chronic nature of certain injuries. However, it also highlights a potential sense of inevitability and possibly resignation towards recurring injuries, which can affect their mental approach to recovery and prevention. Those who believe in non-recurrence might either be more optimistic or less informed about the risks, leading to varied approaches in their training and recovery processes. Addressing these beliefs through education and providing accurate information can help young cricketers adopt better practices and have realistic expectations about their injury recovery and prevention.

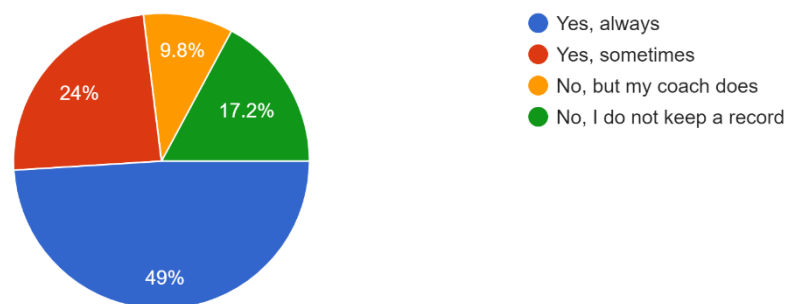


Figure 8. Belief about Recurrence of Side Strain

Detailed Analysis of Age and Frequency of Injuries with Type of Recovery

The chart depicting the relationship between age groups, frequency of cricket-related injuries, and type of recovery shows distinct

patterns. Among respondents under 19, a majority reported experiencing multiple recurrences of injuries, indicating a high frequency of ongoing injury issues. A significant number also experienced a

recurrence of injuries at least once, and a small fraction rarely or never experienced a recurrence after the initial injury. For the under 16 age group, although the number of respondents is smaller, multiple cases of injury recurrence are still present, with fewer instances of single recurrence and minimal cases of rare recurrence observed. This data highlights the vulnerability of younger athletes to recurring injuries and underscores the importance of targeted preventive measures. The recurring nature of injuries among the under 19 group points

to possible gaps in their training or recovery processes, necessitating a review and improvement in their injury management protocols. For the under 16 group, the presence of multiple recurrences, despite their smaller numbers, is a cause for concern and calls for early interventions to prevent long-term issues. Understanding these patterns can help in designing age-specific training and rehabilitation programs that address the unique needs of different age groups.

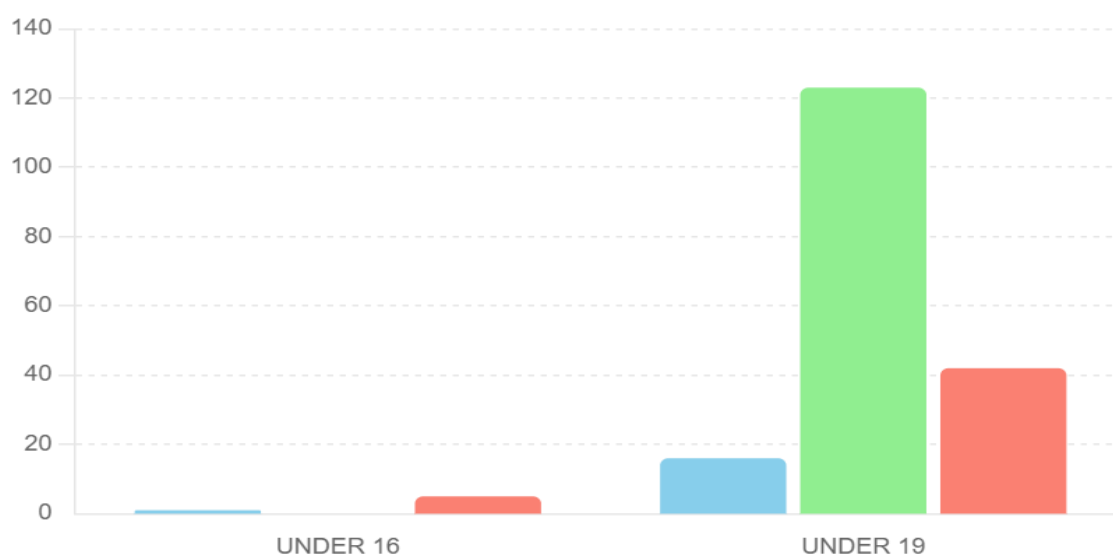


Figure 9. Detailed Analysis of Age and Frequency of Injuries with Type of Recovery

DISCUSSION

The analysis reveals a high prevalence of cricket-related injuries among young players, with side strains being the most common. The recurrence of injuries is alarmingly high, particularly among those players playing in under-19 category, indicating chronic issues that need to be addressed. There is a mix of approaches to managing injuries and varying beliefs about their recurrence, suggesting the need for better education and standardized protocols for injury prevention and management among young athletes. Improved workload management and immediate treatment practices could help mitigate the frequency and severity of these injuries, ultimately contributing to the well-being and performance of young cricketers.

Addressing these issues through comprehensive education, support systems, and targeted interventions can ensure that young cricketers not only enjoy the sport but also maintain their health and continue to perform at their best levels. Implementing standardized injury management protocols and promoting awareness about best practices can significantly reduce the physical and mental toll on young athletes, fostering a safer and more supportive environment for their development ^[5].

The frequent occurrence of side strains and chronic issues highlights gaps in current injury prevention and management strategies. The lack of standardized protocols and adequate education for athletes, coaches, and support staff leads to varied beliefs and practices, complicating

efforts to ensure consistent and effective injury management. Improved workload management and immediate treatment practices are essential to mitigate injury frequency and severity. Educating coaches and players about proper training regimens and the importance of timely and appropriate treatment can significantly reduce the risk of injuries [6,7]

Implementing standardized injury management protocols is crucial for providing consistent, high-quality care tailored to young cricketers' needs. These protocols should be evidence-based to effectively address the specific challenges faced by young athletes. Promoting awareness and education on best practices through workshops, training sessions, and accessible resources can foster a culture of safety and support. By prioritizing comprehensive education, robust support systems, and targeted interventions, we can enhance the physical and mental well-being of young cricketers. This approach will not only help them enjoy the sport safely but also enable them to maintain their health and perform at their best, contributing to a safer and more supportive environment for their development.

CONCLUSION

This study provides valuable insights into the prevalence and management of side strains among club cricketers in North India. The high incidence of side strains, particularly among bowlers, highlights the need for improved injury prevention and management strategies. By adopting evidence-based practices and standardized protocols, cricket clubs can enhance the performance and longevity of their players. In conclusion, side strains are a prevalent issue among North Indian club cricketers, with existing management practices proving inadequate. Enhanced preventive strategies and standardized protocols are essential for improving player health and performance.

Future research should focus on developing and testing specific injury prevention programs tailored to the needs of club cricketers.

Declaration by Authors:

The authors hereby declared that it was their original piece of research and had not been sent to any other journal for publication.

Ethical approval: Approved

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Conflict of Interest: The authors declare no conflict of interest.

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