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A study on prevalence of sports injuries of cricketers in different age categories

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Abstract

Introduction & Background: Cricket's physical and mental demands make it highly popular in India and worldwide, but athletes across all levels remain vulnerable to injuries. Despite increasing participation, there is limited data on injury frequency, severity, and patterns among Indian cricketers. Understanding these injuries is essential for effective prevention and rehabilitation.

Material and Method: This study examined injury prevalence in 303 players (194 men, 108 women, and 1 third gender) across four competitive groups: senior, U-14, U-17, and U-19. A 45-item standardized questionnaire collected information on injury type, location, causes, recurrence, rehabilitation, and side effects. Data were analysed using descriptive statistics.

Result: Acute injuries (37.62%) were more common than chronic (28.71%). The most affected areas were muscles (36.63%) and bones (33.99%), particularly the legs, knees, and shoulders. Sprains (29.70%), strains (19.14%), and contusions (10.89%) dominated. Major causes included improper technique and falls. Notably, 88.12% experienced injuries, with 61.05% reporting recurrences.

Conclusion & Recommendation: Findings emphasize age-specific training, proper technique, structured prevention, and medical supervision to reduce injuries and ensure sustainable player performance.

Keywords: Age group, frequency, cricket injuries, causes, prevention, rehabilitation

1. Introduction

Cricket is one of the most popular sports in the world. Millions of players participate in it every day, and it requires a beautiful combination of physical ability and motor coordination. Players suffer from various types of circular and biological problems to develop like T20, ODI, and Test. Which means that the physical and mental demands of the players are constantly increasing.

Coaches and sports scientists are concerned that players are competing too hard to achieve fame at a young age, despite the risk of injury. Cricket injuries not only affect the performance of players but can also have a long-term impact, and in some cases, can lead to a premature retirement. Injuries can affect anyone, including gender, age, bowler, fielder, wicketkeeper, training, and the environment in which a player is competing. All of these factors can affect injuries. Batsmen can get hit by the ball while batting. Driving while fielding can lead to various injuries, such as sprains, fractures, and dislocations. Fast bowlers are more likely to suffer from hip and shoulder injuries.

The types of injuries vary between boys and girls at different ages. And the difference is seen in the under-14 and under-17 categories. Young players are at higher risk of injury. Senior cricketers suffer from chronic musculoskeletal problems, joint problems, and ligament problems due to playing for a long time. Girls are more prone to soft tissue stress-related problems than boys. This is mainly due to biomechanical and physiological differences.

The epidemiology of cricket injuries has been the subject of numerous research projects. According to D'Souza (1994) ^[1], professional athletes frequently sustain catastrophic injuries. Stretch (2003) ^[4] noted that sprains, strains, and fractures were among the most frequent injuries in competitive cricket, while Orchard (2002) ^[3] stressed the susceptibility of fast bowlers to shoulder and back ailments. Recent studies by Mansingh *et al.* (2017) and Johnstone *et al.* (2019) have highlighted the importance of poor technique, excessive training,

and insufficient medical support. Nevertheless, the majority of existing research is either restricted to top-tier professional cricket players or concentrates on a particular injury type or body part.

There is currently a lack of comparative and systematic data on cricket-related injuries across age and gender groups. With countless Indian cricketers playing a leading role in cricket across the world, research into the types, causes, and management of injuries at different levels is essential. Such research should be conducted to help formulate age-based training plans, preventive measures, and treatment strategies that are in line with the current challenges faced by Indian cricketers.

Thus, the current study intends to examine the frequency, kinds, causes, and management of injuries among cricket players in various age and gender groups (Under-14, Under-17, Under-19, and Senior groups). Through a methodical examination of injury trends, this research aims to produce data that will help coaches, physiotherapists, sports medicine specialists, and legislators create frameworks for injury prevention and management that will protect cricket players' health, safety, and longevity.

2. Methodology

2.1 Research design

The prevalence, types, causes, and treatment patterns of sports injuries among cricket players were examined in this study using a descriptive survey design. Because it makes it possible to get firsthand information from athletes in a variety of age groups and competitive categories, the survey method was selected.

Sample and participants: A total of 303 cricket players 194 men, 108 women, and 1 person from the third gender category participated in the study. The participants were chosen from a variety of local clubs, schools, colleges, and cricket academies that regularly participate in practice and competitive matches. For comparative analysis, the sample was divided into four different age groups:

Early adolescents (under 14) and late adolescents (under 17)

- Under-19 cricket players
- Senior (those over 19, including elite and professional athletes)

In order to account for differences in injury prevalence according to physical maturity, skill level, and training exposure, this classification was crucial.

2.2 Sampling procedure

Because players were selected from organizations and clubs where it was practical to reach participants, the selection strategy blended convenience and purposive sample techniques. To improve the findings' generalizability, efforts were taken to guarantee representation across age and gender groups.

2.3 Research tool

A 45-item structured questionnaire created especially for this study was used to gather data. Sections on demographic information (age, gender, playing experience, and position on the team, such as batter, bowler, wicketkeeper, or all-rounder) were included in the questionnaire.

- Past injury history, including frequency, severity, recurrence, and length of time off from play.
- The kind of injury chronic, acute, or both.

- The type of injury (bone, ligament, tendon, muscle).
- The head, neck, shoulder, arm, wrist, back, hip, thigh, knee, leg, ankle, foot, etc. are examples of anatomical locations.
- Reasons for injuries (falling, accident, overuse, incorrect technique, lack of warm-up, equipment-related, surface condition, etc.).
- Recovery and treatment (recurrence, side effects, length of rest, physiotherapy use, medical help received, and treatment success).

2.4 Validity and reliability

To ensure content validity, cricket coaches, physiotherapists, and sports scientists were consulted during the questionnaire's preparation. Twenty cricket players participated in pilot research to evaluate the items' dependability and clarity. Small changes were made in response to comments. Strong internal consistency was indicated by the tool's Cronbach's Alpha reliability coefficient of 0.82.

2.5 Data collection procedure

With coaches' and team managers' prior consent, participants were approached during practices and games. All respondents gave their informed consent after being told of the study's purpose (for minors, consent was obtained from guardians). To reduce mistakes and guarantee that their answers were complete, players completed the questionnaire under monitoring.

2.6 Variables studied

This study's primary factors included:

- 1) The type of injury acute, chronic, or both.
- 2) Type of injury: tendon, ligament, muscle, or bone.
- 3) Anatomical location: a particular body portion that is impacted.
- 4) Accidental, environmental, or biomechanical causes of damage.
- 5) Injury recurrence: new versus recurring injuries.
- 6) Consequences of treatment and aftercare, including medication, physical therapy, rest, recuperation, and any adverse consequences.

2.7 Data analysis

To ascertain the prevalence and trends of injuries across several categories, the gathered data was coded and examined using descriptive statistics, namely frequency distributions and percentages. To effectively show the results, graphic representations such as tables, bar charts, and pie charts were also employed.

Throughout the study, rigorous adherence to ethical principles was maintained, including responder confidentiality, voluntary participation, and preventing any bodily or psychological harm.

3. Results and Discussion

3.1 Sample distribution

Age group	Male	%	Female	%	Third gender	%	Total	%
Under 14	85	43.81	20	18.52	00	-	105	34.65
Under 17	36	18.56	27	25.00	00	-	63	20.79
Under 19	31	15.98	38	35.19	00	-	69	22.77
Above	42	21.65	23	21.30	01	0.33	66	21.78
Total	194	100	108	100	01	0.33	303	100

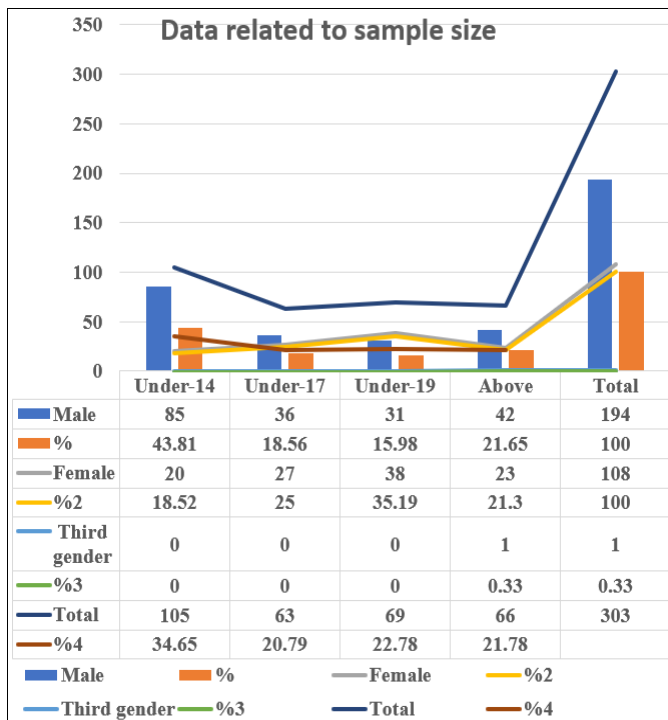


Fig 1: Data related to sample size

Of the 303 cricket players in the study, 194 (64.03%) were men, 108 (35.64%) were women, and 1 (0.33%) fell into the third gender group. According to the age distribution, the highest percentage of participants (34.65%) belonged to the Under-14 group, followed by the Under-19 (22.77%), senior players (21.78%), and Under-17 (20.79%).

Given the growing popularity of cricket as a career choice in India, this distribution shows that a sizable portion of players start training early. Because their bodies are still developing and are more vulnerable to acute injuries and overuse, young learners should be the focus of injury prevention initiatives, as evidenced by the increased representation of under-14 athletes (Junge & Dvorak, 2004) [2].

3.2 Types of injuries

Types of injuries	
Acute injuries	37.62%
Chronic injuries	28.71%
Both acute and chronic	33.66%

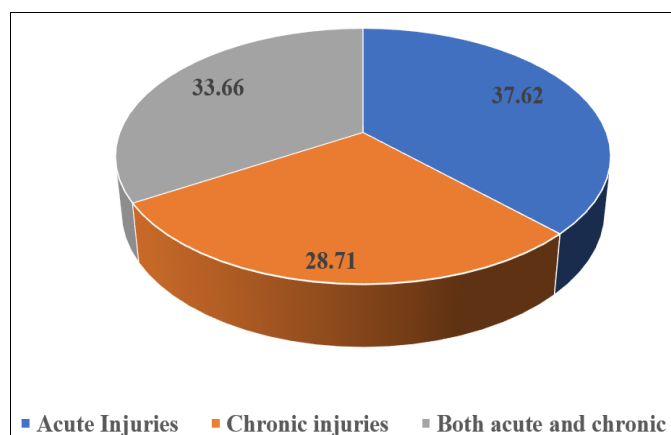


Fig 2: Types of injuries

According to the results, acute injuries were the most frequent, which is in line with cricket's high-intensity

requirements of abrupt bowling motions, fielding dives, running between wickets, and unanticipated collisions. Nonetheless, the very high percentage of chronic injuries (28.71%) indicates that overuse and repetitive strain are still major issues, particularly for bowlers who put constant strain on their lower back, knees, and shoulders.

The cumulative impact of playing cricket is highlighted by the interesting finding that 33.66% of players reported having both acute and chronic injuries at various body sites. This supports the findings of Stretch (2003) [4], who pointed out that poor recovery practices coupled with repetitive stress are a contributing factor to the occurrence of chronic injuries in cricket.

3.3 Nature of injuries

Nature of injuries	
Muscle injuries	36.63%
Bone injuries	33.99%
Ligament injuries	15.51%
Tendon injuries	13.86%

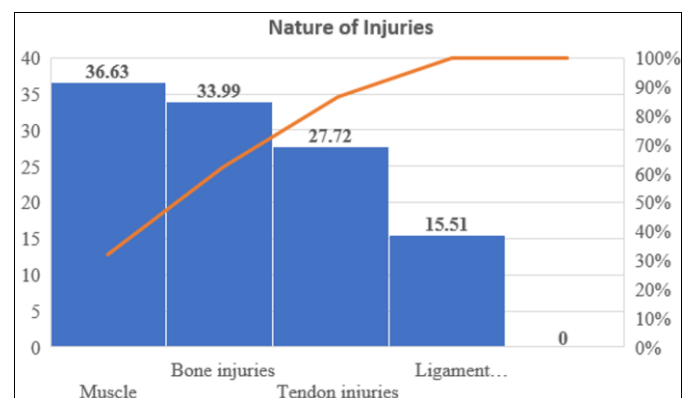


Fig 3: Nature of injuries

Together, muscle and bone injuries accounted for more than 70% of all reported injuries. This is a reflection of cricket's dynamic movements, which put a great deal of strain on the muscles and skeletal systems. These actions include sprinting, jumping, throwing, and quick direction changes.

Although less common, ligament and tendon injuries should not be disregarded because they can be serious and potentially career-ending. While tendon injuries (such as rotator cuff in the shoulder and patellar tendon in the knee) are prevalent among bowlers owing to repetitive stress, ligament damage, especially in the knee and ankle, can result in lengthy recovery times.

These results are consistent with those of Orchard *et al.* (2002) [3], who highlighted that batters and fielders frequently suffer muscular strains as a result of abrupt exertion, whereas fast bowlers are particularly susceptible to stress fractures and soft tissue injuries.

Anatomical location of injuries

3.4 The most affected areas included

The most affected areas included	
Leg	12.21%
Knee	7.59%
Shoulder	3.96%
Fingers	4.29%

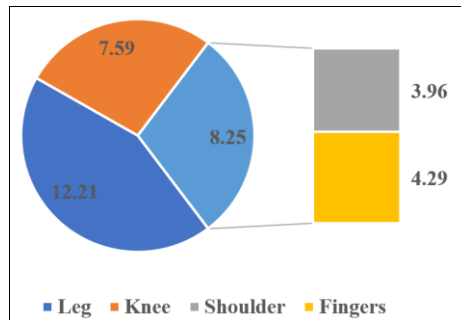


Fig 4: The most affected areas included

Given how crucial sprinting, running between wickets, and fast fielding motions are in cricket, the leg was the area most prone to injuries. Because of their frequent bending, twisting, and high-impact landings, bowlers and wicketkeepers were especially prone to knee injuries (7.59%).

In line with the overhead throwing and bowling motions, which put a great deal of strain on the rotator cuff and deltoid muscles, the shoulder (3.96%) was identified as a major source of injury. Fielders and wicketkeepers were comparatively prone to finger injuries (4.29%), underscoring the dangers of ball impact and improper handling. These findings corroborate those of Frost & Chalmers (2014), who found that injuries to the lower limbs make up about half of all cricket-related injuries, with upper limb and trunk injuries coming in second and third, respectively.

3.5 Types of specific injuries

Types of specific injuries	
Sprains	29.70%
Strains	19.14%
Contusions	10.89%
Fractures	9.24%
Dislocations	6.93%

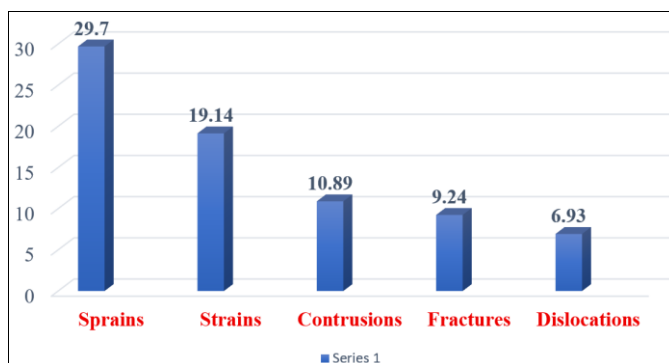


Fig 5: Types of specific injuries

The profile was dominated by soft-tissue injuries, with sprains and strains making up almost half (48.84%) of all ailments. This clearly indicates that cricket is mostly a soft-tissue injury sport, especially because of unexpected fielding movements, abrupt accelerations, and decelerations.

Even though they were less common, fractures and dislocations were serious and required extended playtime absences. Fielders and batsmen who were subjected to fast deliveries were more prone to finger and wrist fractures. These results are in line with those of Orchard (2002) [3], who highlighted that fractures and dislocations, however less frequent, provide serious long-term difficulties for sportsmen, while sprains and strains account for the majority of cricket-related injuries.

3.6 Causes of injuries

Causes of injuries	
Falling down	36.63%
Faulty technique	20.13%
Body contact	11.88%
Serious tackle	6.93%

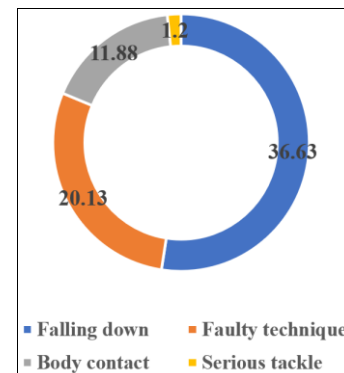


Fig 6: Causes of injuries

The most common cause of injuries was "falling down," which brought attention to the dangers of fielding dives, slipping on uneven terrain, and making quick direction changes. Another significant factor was poor technique (20.13%), particularly in batting and bowling, which suggested deficiencies in biomechanical awareness and training quality.

Even though they are less frequent, body contact and serious tackles capture the physical essence of cricket, particularly in competitive games when fielding collisions and aggressive rushing between wickets are widespread.

This is consistent with research by Bartlett *et al.* (1996), who claimed that bad ground conditions, poor biomechanics, and insufficient warm-up procedures are some of the main reasons why cricket players get hurt.

3.7 Recurrence and severity of injuries

Recurrence and severity of injuries	
Reported one-time injuries at a single site	43.89%
Reported recurrence of old injuries	61.05%
Reported at least one injury during their career	88.12%

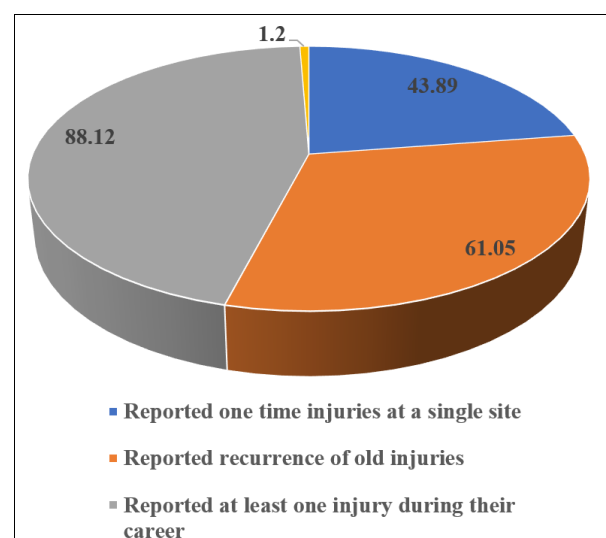


Fig 7: Recurrence and severity of injuries

Because it indicates insufficient rehabilitation, insufficient healing time, and an early return to play, the recurrence rate (over 60%) is very problematic. Recurrent injuries can shorten playing careers and frequently develop into chronic conditions.

The fact that almost 90% of cricket players said they had experienced at least one injury during their career highlights how dangerous the game is. These results are consistent with those of who highlighted that inadequate load control and unfinished rehabilitation programs are the main causes of recurrent injuries.

3.8 Treatment and side effects

- Rest and physical therapy were the main forms of treatment for most cricket players. Nonetheless, 57.76% were now taking treatment for their wounds.
- 35.97% of patients said they had experienced treatment-related side effects, such as stiffness following extended immobility or digestive issues from painkillers.

This demonstrates how grassroots and semi-professional cricket lacks a structured sports medicine framework. Higher recurrence rates and delayed healing are frequently the outcomes of relying on self-medication, conventional treatments, or insufficient physical therapy.

Dedicated physiotherapists and sports doctors are available at professional cricket setups (such as national academies), but access is still restricted at the school and club levels. Sports policy measures are necessary to close this gap and guarantee that young cricket players have access to qualified medical professionals.

3.9 Overall discussion

The results of the study suggest that most of the injuries in cricket are soft tissue injuries such as muscle tears, sprains, strains, and lower limb injuries, which are the most significantly common. One of the reasons for knee, ankle, and foot injuries in fielding, bowling, and running is incorrect technique and overuse, one of the reasons being the weakness of the modern quality infrastructure of training and coaching. The pattern of recurrence of injuries suggests that there is a lack of adequate rehabilitation and rest. The lack of medical treatment suggests that there is a great need for a sports medicine centre near the playing field. Although these results are in line with studies in other countries, they highlight some significant problems in the Indian context, such as unsuitable fields, lack of proper health check-ups for low-level players, and excessive stress on players due to unscientific sports schedules.

This study has analysed in detail the causes, types, and treatments of injury prevalence in 303 professional and amateur Indian cricketers of different genders and ages. Cricket, one of the most popular sports in India, puts significant stress on the musculoskeletal system of the body. This study found that the rate of sudden injuries (37.62%) is relatively higher than the rate of long-term injuries (28.71%). However, the higher rate of players (33.66%) suffering from both injuries during their playing career proves that players endure repeated stress and cumulative stress. The long-term consequences of which are significant transformations into injuries when rehabilitation and rest are not adequate.

The most common injuries are observed in muscles (36.63%), followed by bones (33.9%) and ligaments and tendons (33.9%), as evidenced by the fact that cricketers are under immense pressure during running, sudden sprints, bowling

actions, strokes, and fielding. The majority of the injuries seen are sprains (29.70%) and strains (19.14%). Fractures and dislocations are somewhat less common, but they create very significant problems in the lives of players.

From an anatomical point of view, the feet (12.21%) are the most injured, the knees (7.59%) are the next most injured, and the shoulders (3.96%) and the fingers (4.29%) are the next most injured. Running, sprinting, sudden changes of direction between wickets, bowling action, and feet and knees are the most affected by cricketers. Although it is less than the injuries to the upper body, it is very significant for bowlers and fielders. It directly affects the throwing, catching, and bowling skills. If we analysed the injuries that the players have suffered, it can be seen that most of the injuries could have been avoided. Falling (36.63%) is one of the most common causes of injuries. Wrong driving technique. Inappropriate field. Bad shoes. These are the causes of injuries. Batting and bowling 20.13% prove that wrong technique. Biomechanical coaching skills need to be emphasized. Serious catching (6.93%) Physical shock at 11.80% is significantly less, but aggressive fielding is often seen in modern cricket. Almost 90% of players 88.12% of players have not been injured in their lives. There is no such example, which is very worrying. Lack of diamond treatment in amateurs. Trying to quickly return to playing results. Not giving importance to rehabilitation time is proof of this.

As a result, quick retirement, poor health, and the tendency of temporary injuries increase, and players generally rely on rest, medicine, and physiotherapists for treatment. Even then, players have taken medicine. (57.76%) 25% (35.97%) Side effects such as digestive problems, stiffening of limbs, problems due to long rest, temporary treatment by physiotherapists, and professional sports medical services instead of proper rehabilitation prove that these incidents are happening. Overall, the study shows that despite providing mental and physical comfort, the possibility of injury in cricket is very high. A solution needs to be found immediately after the incident, and accordingly,

Some recommendations have been made. 1. Preventive Strategies: To lower the risk of falls and sprains, emphasis is placed on neuromuscular training, strength and conditioning regimens, warm-up exercises, and appropriate footwear. 2. Technical Interventions: To reduce repetitive strain and injuries caused by poor technique, coaching must place a high priority on biomechanical efficiency, especially in bowling and batting. 3. Medical Infrastructure: Creating, particularly at the local level, access to qualified physiotherapists, sports medical professionals, and injury surveillance systems. 4. Rehabilitation and Return-to-Play.

Guidelines

To prevent recurrence and guarantee a safe return to performance, structured injury management standards must be adhered to. 5. Policy and Awareness: To protect young athletes' health, governing bodies, academies, and educational institutions must incorporate injury prevention and health education into cricket development programs.

The conclusion of the study is that most of the injuries that occur in players can be avoided if precautions are taken. Although soft tissue injuries are mainly seen, the recurrence rate of medical rehabilitation is high, and temporary solutions are needed. If these preventive, educational, and medical initiatives are taken together, the health and performance of the players will be prolonged. This will be a significant new horizon for all the coaches, doctors, policy makers, and players in Indian sports science.

Conclusion

This study clearly demonstrates that acute musculoskeletal injuries are a very common sports-related injury, which is caused by the repetitive stress of running, driving, catching, bowling, batting, and fielding. The most common reported injuries were strains, sprains, and soft tissue injuries, which are proportional to the biomechanical stress of cricket on the lower limbs. The two main causes of injury, as reported, are incorrect technique and overuse, which indicate a lack of proper body mechanics, a lack of corrective action during training, and a lack of warm-up.

The majority of injuries require repeated treatment, which indicates a lack of proper medical care and rehabilitation. For cricket players of all levels, the study emphasizes planned preventive training activities at a specific age, focusing on the preventive aspects of flexibility, mobility, and balance. Conditioning for the needs of the developing body can significantly reduce the risk of musculoskeletal injuries in players of all levels. Appropriate technique, posture, and movement skills should be included in the training curriculum from the very beginning of training.

It is very important to ensure that appropriate trainers, coaches, doctors, physiotherapists, and specialists with specific qualifications are appointed in training centres of all levels. This will ensure timely medical diagnosis and rehabilitation and reduce injury and long-term problems.

This study will provide a specific idea of the injury pattern not only for cricketers but also for sports scientists, coaches, and policy makers. Which can later prevent injuries and plan appropriate measures that will protect the health of players and enhance their sports skills and extend their sports life. If these problems are solved, cricket will be able to reach its overall goal and expand.

References

1. D'Souza C. An investigation into the incidence and causes of injuries in sport. *J Sports Med Phys Fitness*. 1994;34(3):197-203.
2. Junge A, Dvorak J. Influence of definition and data collection on the incidence of injuries in football. *Am J Sports Med*. 2004;32(1 Suppl):40S-46S.
3. Orchard J. Cricket injuries: an overview. *Sports Med*. 2002;32(10):761-769.
4. Stretch RA. Cricket injuries: a longitudinal study of the nature of injuries to South African cricketers. *Br J Sports Med*. 2003;37(3):250-253.
5. Dennis RJ, Finch CF, Farhart PJ. Is bowling workload a risk factor for injury to Australian junior cricket fast bowlers? *Br J Sports Med*. 2004;38(5):514-517.
6. Gabbett TJ. Incidence of injury in junior and senior rugby league players. *Sports Med*. 2004;34(12):849-859.
7. Khan KM, Cook JL, Bonar F. Overuse tendon injuries: where does the pain come from? *Sports Med*. 1999;27(6):393-414.
8. Shereef A, Moorthy A. Injury surveillance in cricket: a systematic review. *Int J Sports Sci Coach*. 2017;12(5):659-669.
9. Fuller CW, Molloy MG, Bagate C. Consensus statement on injury definitions and data collection procedures for studies of injuries in rugby union. *Br J Sports Med*. 2007;41(5):328-331.
10. Verma JP. *Sports statistics and analytic methods*. London: Routledge; 2018.