



Factors and Health Consequences Associated with Doping among Cricket Players of Pakistan

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Abstract: Doping remains a significant issue in sports, including cricket, with serious implications for athletes' health and the integrity of the sport. This study explores the factors contributing to doping among cricket players in Pakistan and examines the associated health consequences. Factors such as performance pressure, lack of education about doping, financial incentives, peer influence, and accessibility of doping substances were found to contribute to doping practices among players. The study highlights that Doping poses dangers to one's health such as coronary artery disease., Damaged liver, hormonal disorders, mood swings, aggression, and depression. These findings underscore the need for comprehensive anti-doping policies and programs in Pakistani cricket, focusing on education, prevention, and detection. Collaborative efforts involving sports authorities, coaches, players, and healthcare professionals are crucial in addressing doping effectively and promoting clean and fair play while safeguarding athletes' health and well-being.

Key Words: Doping, Cricket, Pakistan, Performance-Enhancing Substances, Factors, Health Consequences, Anti-Doping Policies, Athletes, Education

Introduction

Doping in sports, including cricket, has been a persistent issue globally, and Pakistan is no exception. The use of performance-enhancing substances among cricket players raises concerns not only for the integrity of the sport but also for the health and well-being of the athletes. Understanding the factors contributing to doping and its associated health consequences is critical for establishing operational interventions and preventive strategies. This investigation intends to investigate the factors associated with doping among cricket players in Pakistan and to examine the health consequences of doping in this population. (N. Khan et al., 2018).

Cricket holds a significant place in Pakistani culture and society, with a large following and a deep-rooted passion for the game. The pressure to excel in cricket, both at the national and international levels, can be immense, leading some players to consider doping as a means to enhance their performance. Factors such as performance pressure, lack of education about doping, financial incentives, peer influence, and accessibility of doping substances can contribute to the decision to dope among cricket players in Pakistan. However, the use of doping substances in cricket poses serious health risks to the athletes. Doping can cause a variety of mental and physical implications,

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including cardiovascular problems, liver damage, hormonal imbalances, mood swings, aggression, and depression. Long-term use of doping substances can have lasting effects on the athlete's health, potentially leading to chronic health conditions and organ damage. By understanding the factors contributing to doping and its health consequences, stakeholders in Pakistani cricket, including sports authorities, coaches, players, and healthcare professionals, can work together to implement effective anti-doping policies and programs. These efforts can help create a clean and fair playing field for cricket players in Pakistan while safeguarding their health and well-being. (Serby, 2015).

According to (Serby, 2015) doping is the intentional ingestion of illicit drugs and methods to improve the performance of athletes., remains a persistent concern in the realm of sports, including cricket. In Pakistan, where cricket enjoys immense popularity and holds a revered place in the national identity, the issue of doping among players demands thorough examination. This study delves into the multifaceted factors driving doping practices among cricket players in Pakistan, alongside a critical analysis of the associated health consequences. (Starke & Flemming, 2016).

Cricket's significance in Pakistan extends beyond sport; it embodies national pride and serves as a pathway to fame and fortune for aspiring players. This intense sporting culture, coupled with the country's competitive cricket landscape, creates an environment where players may feel compelled to seek performance-enhancing advantages. Factors such as the pressure to succeed, limited awareness of doping risks, financial incentives, influence from peers, and the availability of doping substances can all contribute to the prevalence of doping in Pakistani cricket. However, the repercussions of doping extend far beyond the cricket field, impacting the health or well-being of players. Doping can cause a wide range of problems with health, such as complications with the heart, liver damage, hormonal imbalances, and psychological disturbances. The long-term effects of doping can jeopardize not only the player's career but also their overall health, highlighting the urgent need for intervention and prevention strategies. The factors that drive doping practices & health consequences associated with these actions are essential. The present research seeks to shed some light on these problems to inform policies and interventions that promote clean and fair competition in Pakistani cricket, safeguarding the integrity of the sport and the well-being of its players. Doping relates to the use of prohibited substances or techniques that improve an athlete's performance. In the context of sports, doping can have serious health consequences for athletes and can also undermine the spirit of fair play. It is a major concern in many sports, including cricket, and efforts are made to detect and prevent doping by means of examinations and programs for learning. (Birzniece, 2015).

As per (Birzniece, 2015) Doping in athletic activities is a serious issue that includes the use of prohibited substances and methods for obtaining an unjust edge in rivalry. Athletes may use doping for various reasons, including improving performance, speeding up recovery, or coping with pressure to succeed. However, doping can have serious health consequences is deemed illegal, and violates the principles of equality in the game. To combat doping, sports associations, such as the World Anti-Doping Agency (WADA), have developed anti-doping programs that include testing, education, and sanctions for athletes who violate doping rules. Testing methods have become more advanced over the years, but so have the techniques used by some athletes to evade detection. This ongoing cat-and-mouse game underscores the importance of continued efforts to maintain fair and clean competition in sports. (Pielke, 2017) (Mazzeo, D'Elia, et al., 2018).

Types of Doping: Doping involves the use of different substances, i.e. anabolic steroids, stimulants, diuretics, and hormones such as erythropoietin (EPO). It can also involve methods such as blood doping, where an athlete's blood is withdrawn, stored, and then reinfused to increase the oxygen-carrying capacity of the blood. (Bowers & Paternoster, 2016).

Health Consequences: Doping can have serious potential hazards such as cardiovascular problems, liver damage, fluctuations in hormones, and psychological repercussions. The long-term use of some doping substances can lead to chronic health problems and even death.

Detection Methods: Anti-doping organizations use various methods to detect doping, including blood and urine tests were conducted. These procedures may identify the existence of prohibited substances and abnormal levels of certain markers that indicate doping. Athletes are subject to testing both in and out of competition.

Sanctions: Athletes found guilty of adding may face sanctions such as expulsion to matches, loss of medals, fines, as well as a suspension from playing a game. Recurring offenders may face long-term or lifetime exclusions from competitors.

Prevention and Education: Preventing doping involves educating athletes about the risks and consequences of doping, promoting fair play and ethical behavior, and providing support for athletes to compete clean. Anti-doping organizations also work to improve testing methods and stay ahead of doping practices.

Global Efforts: Doping is a global issue, and international sports organizations collaborate to combat doping. The International Code for the Prevention of Doping is an outline for the prohibition of doping rules, processes, and penalties that are implemented by sports organizations worldwide.

Ethical Considerations: Doping raises ethical questions about fairness, integrity, and the pursuit of excellence in sports. It challenges the values that sports are meant to uphold, such as respect, solidarity, and fair play, and can undermine the integrity of sports competitions.

Public Perception: Doping scandals can harm the reputation of sports and athletes, causing a loss of confidence and trust between fans and the general public. Maintaining neat and equitable competition is critical to safeguarding the honesty of athletics and making sure athletes compete on an equal playing on the surface.

Statement of the Problem

Cricket, known as the national sport of England, has evolved into one of the most popular games worldwide. It is a sport that challenges athletes physically, mentally, emotionally, and socially, requiring a comprehensive approach to performance. In the realm of cricket, athletes often turn to substances like caffeine and codeine to enhance their psychological functions. The International Cricket Council (ICC), established on July 20, 1909, now boasts 108 member countries. Pakistan ranks 6th in Test cricket, 5th in One Day International cricket, and 2nd in T20 International cricket in the year 2018. Despite its popularity, cricket, like many sports, grapples with the issue of doping, with athletes using various performance-enhancing drugs. This study aims to explore the factors contributing to doping among cricket players in Pakistan. The pursuit of high performance, fame, and success are often cited as strong motivating factors for athletes seeking quick results. Additionally, the need to recover swiftly from injuries is a significant driver of doping in sports. Therefore, this research seeks to identify and understand the factors influencing doping in both physically and mentally demanding sports, particularly cricket in Pakistan. By uncovering these factors, this study hopes to provide insights that can aid in addressing this universal problem. The findings and conclusions of this research will be used to propose potential solutions to help relevant authorities combat doping in cricket and other sports effectively.

Methodology of the Study

To achieve specific findings and conclusions, the researcher in this study adopted a qualitative

research approach to explore the factors contributing to doping among cricket players in Pakistan. Two types of data were collected: primary data through a questionnaire and secondary data from related literature. The study's population comprised all registered cricket players in Sindh, Pakistan, estimated to be approximately six thousand players according to the official record of the Sindh Provincial Cricket Association. Due to the large population size, a sample of one hundred seventy-four (174) respondents was selected using available sampling methods, rather than attempting to survey the entire population. To ensure the questionnaire's validity and reliability, the researcher created a scale resembling a Likert with the assistance of the study's supervisor. Field experts validated the measurement instrument before it was used to collect data. The investigator sent the final questionnaire to those who responded and gathered it once completed. The data was analyzed using the Statistics Package for Social Sciences (SPSS, version-27) with appropriate statistical tools applied to analyze the data and identify factors associated with doping among cricket players in Pakistan.

Presentation and Analysis of the Data

Table 1

Showing the Demographic Data of Cricket Players

| Variables | Mean | SD | T | Df | P |
|------------------------|---------|--------|--------|-----|------|
| Age | 1.32353 | .38235 | 45.134 | 169 | .000 |
| Gender | .79412 | .45699 | 22.657 | 169 | .000 |
| Level of Participation | 1.04118 | .49977 | 27.163 | 169 | .000 |

The table presents the demographic attributes of the respondents, including age, gender, and level of participation. The mean and standard deviation (SD) for each attribute is provided, along with the t-value, levels of independence (df), and p-value. For age, the mean was 1.32 with an SD of ± 0.38235 . The t-value was 45.134 with a df of 169, and the p-value was .000, indicating a significant difference in age among the respondents. For gender, the mean was .79 with an SD of ± 0.45699 . The t-value was 22.657 with a df of 169, and the p-value was .000, indicating a significant difference in gender distribution among the respondents. For the level of participation, the mean was 1.04 with an SD of ± 0.49 . The t-value was 27.163 with a df of 169, and the p-value was .000, indicating a significant difference in the level of participation among the respondents. Overall, the table provides a comprehensive overview of the demographic characteristics of the respondents, highlighting significant differences in age, gender, and level of participation.

Table 2

Showing the Descriptive Analysis of the Trend of Doping among the respondents

| Variables | Mean | SD | T | Df | P |
|--|---------|---------|--------|-----|------|
| Use a special dietary plan? | 1.86471 | 1.40031 | 17.362 | 169 | .000 |
| Use energy drink? | 1.77647 | 1.36743 | 16.939 | 169 | .000 |
| Use cigar/Smoke/Vape | 1.57647 | 1.30997 | 15.691 | 169 | .000 |
| Use drugs/doping? | 1.40588 | 1.33787 | 13.701 | 169 | .000 |
| Performed doping Testing | 1.68824 | 1.43493 | 15.340 | 169 | .000 |
| Familiar with the side effects of Doping | 2.8000 | 1.61208 | 18.602 | 169 | .000 |

"The table above presents the trends of doping among 174 respondents, with data expressed as the mean, average, standard deviation (SD), t-value, levels of freedom (df), and p-value. The mean and SD for the dietary plan were 1.86 ± 1.40 , with $df = 169$, $t = 17.362$, and $p < .001$. Similarly, for energy drinks, the mean and SD were 1.77 ± 1.36 , $df = 169$, $t = 16.939$, and $p < .001$. The mean and SD for cigar/smoke/vape were 1.57 ± 1.30 , $df = 169$, $t = 15.691$, with $p < .001$. For drug/doping, the mean and SD were 1.40 ± 1.33 , $df = 169$, $t = 13.701$, and $p < .001$. The mean and SD for the doping test were 1.68 ± 1.43 , $df = 169$, $t = 15.340$, with $p < .001$. Finally, the mean and SD for side effects were 2.80 ± 1.61 , $df = 169$, $t = 18.602$, and $p < .001$."

Table 3

Shows the descriptive information of respondents regarding psychological factors

| Variables | Mean | SD | T | Df | P |
|--|---------|---------|--------|-----|------|
| Use drugs/doping to control anxiety? | 1.94118 | 1.51504 | 16.706 | 169 | .000 |
| Use drugs/doping to control stress? | 1.94118 | 1.53058 | 16.536 | 169 | .000 |
| Use drugs due to fear of Loss? | 1.60588 | 1.42275 | 14.717 | 169 | .000 |
| Use drugs/doping due to fear of Coach? | 1.42899 | 1.31191 | 14.160 | 169 | .000 |

"The table above illustrates the psychological factors contributing to doping among 174 respondents, with data presented as mean, the standard deviation (SD), t-value, degrees of freedom (df), and the p-value. The mean and SD for control anxiety were 1.94 ± 1.51 , with $df = 169$, $t = 16.706$, and $p < .001$. Similarly, for control stress, the mean and SD were 1.94 ± 1.53 , $df = 169$, $t = 16.536$, and $p < .001$. The mean and SD for fear of loss were 1.60 ± 1.42 , $df = 169$, $t = 14.717$, with $p < .001$. For fear of the coach, the mean and SD were 1.42 ± 1.31 , $df = 168$, $t = 14.160$, and $p < .001$."

Table 4

Showing the Descriptive Analysis of Respondents regarding Physiological Factors Caused Doping among the Respondents

| Variables | Mean | SD | T | Df | P |
|--|---------|---------|--------|-----|------|
| Use drugs/doping medications to control the mental stress? | 1.70000 | 1.39992 | 15.833 | 169 | .000 |
| Use drugs/doping to improve mental stamina & focus? | 1.71176 | 1.47238 | 15.158 | 169 | .000 |
| Use drugs/doping to enhance the mind alertness? | 1.76471 | 1.49771 | 15.363 | 169 | .000 |
| Use drugs/doping to improve neuromuscular coordination? | 1.82941 | 1.50650 | 15.833 | 169 | .000 |

"The table above presents the physiological factors associated with doping among 174 respondents. The data is presented as mean, SD, the t-value, degrees of freedom (df), and the p-value. The mean and SD for control mental stress were 1.70 ± 1.39 , with $df = 169$, $t = 15.833$, and $p < .001$. Similarly, for improved mental stamina & focus, the mean and SD were 1.71 ± 1.47 , $df = 169$, $t = 15.158$, and $p < .001$. The mean and SD for mind alertness were 1.76 ± 1.49 , $df = 169$, $t = 15.363$, with $p < .001$. As for neuromuscular coordination, the mean and SD were 1.82 ± 1.50 , $df = 169$, $t = 15.833$, and $p < .001$."

Table 5

Shows the Descriptive Analysis of Respondents regarding Financial Factors Caused Doping among the Respondents

| Variables | Mean | SD | T | Df | P |
|---|---------|---------|--------|-----|------|
| Use drugs/doping due to fear of losing sponsorship? | 1.57059 | 1.32154 | 15.496 | 169 | .000 |
| Use drugs/doping to win titles/ prizes/trophies? | 1.75294 | 1.44346 | 15.834 | 169 | .000 |

The table presents the financial factors linked to doping among the respondents, with data expressed in terms of mean, SD, t-value, degrees of being free (df), and p-value. Among the respondents (total n=174), the mean and standard deviation (SD) for losing sponsorship were 1.57 ± 1.32 , with df=169, t-value=15.496, and a significant level of $p=0.000$. For winning titles/prizes/trophies, the mean and SD were 1.75 ± 1.44 , with df=169, t-value=15.834, and a significant level of $p=0.000$.

Table 6

Shows the Descriptive Analysis of Respondents regarding Social Factors Caused Doping among the Respondents

| Variables | Mean | SD | T | Df | P |
|---|---------|---------|--------|-----|------|
| Use drugs/doping due to winning/ Familiarity? | 1.65294 | 1.43090 | 15.062 | 169 | .000 |
| Use drugs/doping to win the title as a result of peer pressure? | 1.76471 | 1.42066 | 16.196 | 169 | .000 |
| Encounter Jealousy influences is the cause of the use of drugs to capture desired results | 1.70588 | 1.40117 | 15.874 | 169 | .000 |
| Use drugs/doping for fun? | 1.72353 | 1.49853 | 14.996 | 169 | .000 |

The table summarizes the social factors contributing to doping among the respondents, with data presented as the mean, standard deviation (SD), t-value, levels of freedom (df), and significance level. Among the 174 respondents, the mean and SD for winning/familiarity were 1.65 ± 1.43 , with df = 169, t-value = 15.062, and $p = 0.000$. For peer pressure, the mean and SD were 1.76 ± 1.42 , with df = 169, t-value = 16.196, and $p = 0.000$. Encounter jealousy influence had a mean and SD of 1.70 ± 1.40 , df = 169, t-value = 15.874, and $p = 0.000$. The fun factor had a mean and SD of 1.72 ± 1.49 , df = 169, t-value = 14.996, and $p = 0.000$. These results indicate a significant association between these social factors and doping among the respondents.

Correlation Analysis

Table 7

Results of Pearson Correlation Analysis of the Study Variables (n=169)

| | Social | Psychological | Physiological | Financial | Chess Sports Participation |
|----------------|--------|---------------|---------------|-----------|----------------------------|
| Social | 1 | 0.00 | -0.06 | 0.00 | 0.00 |
| Psychological | | 1 | 0.00 | 0.00 | 0.00 |
| Physiological | | | 1 | 0.00 | 0.00 |
| Financial | 1 | | | 1 | 0.00 |
| Cricket Sports | | | | | 1 |

| | Social | Psychological | Physiological | Financial | Chess Sports Participation |
|---------------|--------|---------------|---------------|-----------|----------------------------|
| Participation | | | | | |

* Correlation has significance at the 0.05 level (2-tailed); **. The correlation has significance at the 0.01 level (two-tailed).

The above table no 7 indicates that Cricket sport participation is significantly correlated ($p < 0.05$) with social ($r = 0.00$), Psychological ($r = 0.00$), Physiological ($r = 0.00$), finance ($r = 0.00$), and Chess sports participation ($r = 0.00$).

Discussion

The findings of this study shed light on the factors and health consequences associated with doping among cricket players in Pakistan. The results reveal several key insights that can inform anti-doping policies and interventions in the country.

Factors Contributing to Doping

Performance Pressure: The intense pressure to perform well in cricket, both domestically and internationally, can drive players to seek performance-enhancing substances to gain a competitive edge. Lack of Education: The study suggests that a lack of education about the risks and consequences of doping may contribute to its prevalence among cricket players in Pakistan. Educating players about the dangers of doping is essential for prevention. Financial Incentives: The desire to win titles, prizes, and trophies, as well as the fear of losing sponsorship, can motivate players to resort to doping to achieve success and financial rewards. Peer Influence: Peer pressure and the influence of teammates or competitors who may be doping can also contribute to the decision to use performance-enhancing substances. Accessibility of Doping Substances: The availability and accessibility of doping substances may make it easier for players to engage in doping practices. (Hackney & Thomas, 2017).

Health Consequences of Doping

The study emphasizes the serious threats to health linked to drug use, including heart disease, liver damage, problems with hormones, mood swings, aggression, and depression. Long-term use of doping substances can lead to chronic health conditions and organ damage, underscoring the importance of addressing doping in cricket.

Implications for Policies and Practice

The findings of this study emphasize the need for comprehensive anti-doping policies and programs in Pakistani cricket. These efforts should focus on education, prevention, and detection of doping. Sports authorities, coaches, players, and healthcare professionals should work together to implement effective anti-doping measures and promote clean and fair play in cricket. Awareness campaigns and educational programs should be developed to inform players about the risks and consequences of doping, and the importance of maintaining the integrity of the sport. (Whitaker & Backhouse, 2016).

Limitations and Future Research

This study was limited by its sample size and scope, focusing only on cricket players in Pakistan. Future research could increase the study's number of samples and diversity of players from different regions and levels of the game. Longitudinal studies could be conducted to track the prevalence of doping

over time and assess the effectiveness of anti-doping interventions in reducing doping practices among cricket players.

Conclusion

In conclusion, this study highlights the complex factors contributing to doping among cricket players in Pakistan and underscores the need for concerted efforts to address this issue. By implementing comprehensive anti-doping policies and programs, Pakistani cricket can promote clean and fair play while safeguarding the health and well-being of its players.

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