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DOPING CLEAN SPORT: ELITE ATHLETES' ATTITUDES, ROLE, AND USE

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Abstract

"Doping clean sport" emphasizes preserving honesty and fairness in sports competitions by strictly banning illegal performance-enhancing substances and techniques. This concept, rooted in fair play, encourages athletes to showcase natural skills and dedication rather than seeking unfair advantages through artificial means. Such substances compromise sports integrity and pose health risks. Organizations like WADA play a crucial role by enforcing testing procedures, raising awareness, and promoting clean competition. A doping-free environment safeguards sports credibility, and athlete well-being, and motivates future athletes to strive ethically. Doping, involving the use of banned substances for performance boosts, creates an unequal playing field and undermines fair competition. Elite athletes, as role models, are essential in promoting clean sports. This study aimed to investigate elite athletes' attitudes toward doping, its prevalence, and its role in advocating drug-free sports in Pakistan. Using a quantitative cross-sectional survey, data were gathered across various sports at national and international levels. A self-developed questionnaire assessed attitudes, self-reported drug use, and perceptions of promoting clean sports. Among 168 elite athletes (96 males, 72 females), findings showed a positive attitude toward doping-free sports (mean score = 3.43). Despite this, 7.7% admitted to doping, highlighting the challenges in the eradication. Significant gender and competition-level differences in doping attitudes and promotion roles reveal diverse engagement with doping practices.

Keywords: Elite Athletes; Attitudes; Doping in Sport; Clean Sport.

Introduction

Human beings often seek the benefits of others to fulfill their desires, sometimes disregarding what is right or wrong, legal, or illegal.

In the realm of sports, where competition is intense and demands peak energy, athletes might resort to unnatural or illicit methods to gain an advantage. This

practice, known as doping, involves using prohibited substances to enhance performance (Kraska, et al., 2009; Noakes, 2004; Sandomir, 2005). In today's media, discussions about anabolic steroids, hormones, and other banned substances are prevalent. According to statistics from the International Olympic Committee (IOC), annually 1 to 2 percent of doping tests return positive for illegal drug use (Mottram, (1999), As suggested by Bents et al. (2004) the actual rate of doping among athletes could be significantly higher. Data from the Anti-Doping Testing Figures shows a slight decrease, with the percentage of positive findings at 1.11%, down from 1.31% in 2013 (BBC Sport. 2014). Despite advanced testing methods, doping remains a concern in elite, amateur, and even school sports, whether intentional or accidental. The WADA report in 2013 noted a 20% increase in abnormal test results since 2012. In the USA alone, it is estimated that between 2.9 and 4 million people use performance-enhancing drugs (PEDs). A review by De Hon et al. (2015) indicated that the prevalence of doping among adult elite athletes ranges from 14% to 39%. WADA, as reported by Statista. (2023), recorded 1,914 anti-doping rule violations in 2019. The number of such violations from 2013 to 2019 varied between 1,595 and 1,953. Another study published by Stubbe et al. (2014) revealed that 2 to 4% of drug and Alcohol dependence were found among professional and amateur athletes. Sagoe et al. (2014) surveyed 718 athletes from 92 fitness centers and found 0.8% to 8.2% of PED use. Further, the survey indicates that a variety of stimulants for weight loss are the most common. A meta-analysis of general population studies in Africa from 1970 to 2013 found a 2.4% lifetime use of anabolic-androgenic steroids.

While anti-doping testing is crucial, additional programs aimed at deterring athletes from using banned substances are also needed. The World Anti-Doping Agency (WADA) (2014) has emphasized the importance of such programs, supported by IOC President Thomas Bach, who advocates for a shift from merely fighting drugs in sports to actively protecting clean athletes. These programs often focus on changing athletes' attitudes toward doping, with research showing that a positive attitude toward doping correlates strongly with doping behaviors (Morente-Sanchez, & Zabala, 2013). A meta-analysis Anti-Doping Organization Pakistan (2014), studying personal and psychosocial predictors of doping highlighted that attitudes are significant predictors of doping behavior. Schools and sports clubs play a key role in promoting 'fair play' and positive values in

sports. Dodge & Jaccard (2007) and Strelan & Boeckmann (2003) have shown that athletes' decisions to use doping can be influenced by environmental factors such as parental influence, coaching, and drug availability. Anshel (1991) and Orlick (1990) reported that athletes who use doping should face legal consequences as they break the law. Coaches are seen as crucial in preventing doping, with 98.1% of athletic coaches in France acknowledging their role in this regard. Dubin (1990), Fung (2003), Laure et al (2001), McGuire (1985) and Alaranta et al. (2006) influence of an athlete's personality, prior experiences, and environmental factors can shape their attitude toward doping show that while many athletes believe performance can be improved with banned substances, a significant majority still believe that reaching the top level without doping is possible.

In conclusion, this study aims to explore elite athletes' attitudes toward clean sports, their role in maintaining a doping-free environment, and the extent of doping use among them. The study hypothesizes that elite athletes will have positive attitudes towards clean sports and a positive role in maintaining doping-free practices. A sample of 168 elite athletes, both male and female, were surveyed using questionnaires. Descriptive statistics (mean, standard deviation, independent sample t-test) were employed for analysis. The findings indicate that elite athletes generally hold positive attitudes towards clean sports and play a constructive role in maintaining doping-free practices, with a 7.7% doping prevalence, mostly among national-level athletes.

Objectives of the Study

The following were the main objectives of the study:

1. To examine the attitude of elite athletes from the perspective of doping clean sports in Pakistan.
2. To assess the views of elite athletes regarding their role in the prevention of doping in sports.
3. To investigate the doping practices among athletes who participated in National and International sports events.

Hypotheses of the Study

The research is based on an extensive review of literature, personal experiences, and observations formulated and then tested the following hypotheses.

H_A1. The attitudes of elite athletes will be found significantly positive towards doping clean sports.

H_A2. Significant differences will be established in the attitudes of respondents

towards doping clean sports based on their gender and level of sports participation.

H_A3. The positive role of elite athletes will be measured from the perspective of doping clean sports.

H_A4. Significant variances in scores will be recorded about the role of elite athletes in doping clean sports based on gender and level of sports participation.

H_A5. Significant exposure to doping in sports will be found among elite athletes.

H_A6. Significant differences will be noticed in the exposure of doping in sports among elite athletes based on their gender and level of sports participation

Research Methodology

The study focuses on elite-level athletes in Pakistan. The research involved a diverse group of elite athletes from various sports, including athletics, boxing, handball, martial arts, and swimming. The sample was selected through a convenient sampling method. Initially, the researchers secured official authorization from the Pakistan Sports Board in Islamabad. Data was gathered using paper-and-pencil questionnaires from a total of 168 Pakistani elite athletes, comprising 96 males (57.1%) and 72 females (42.9%). The data collection occurred during the athletes' practice sessions, with the participants divided into two groups: 113 national athletes (66 males and 47 females) representing 67.1% of the sample, and 55 international athletes (30 males and 25 females) representing 32.9%. The questionnaires were administered immediately following training sessions.

The research included three main questionnaires: the Elite Athletes' Attitudes toward Doping Clean Sports (EAADCS), the Role of Elite Athletes (REA), and the Use of Doping by Elite Athletes (UDEA). The EAADCS, consisting of 18 items, assessed general attitudes towards doping-free sports. This measure was defined as an individual's inclination towards using or avoiding banned PEDs and methods. Responses were recorded on a five-point Likert scale that ranges from "strongly disagree" (1) to "strongly agree" (5). Previous research has validated this scale as unidimensional and reliable, with Cronbach's alpha values exceeding .70 (Petróczi, 2002; Petróczi, 2003). In this study, the EAADCS achieved a Cronbach's alpha of .87, confirming its internal consistency through a pilot study and expert review.

The Doping Use by Elite Athletes (DUEA) questionnaire, comprising 11 items, measured opinions on whether doping should be permitted at different competitive levels.

Participants chose from three options: 1 = yes, without restrictions, 2 = yes, with restrictions, and 3 = absolutely not. The questionnaire demonstrated an internal consistency of .81.

The Role of Elite Athletes (REA) questionnaire, featuring 10 items, assessed the perceived role of elite athletes in promoting a doping-free environment. Responses were recorded on a five-point Likert-type scale, ranging from strongly disagree (1) to strongly agree (5). The REA questionnaire achieved a Cronbach's alpha of .83, indicating good internal consistency.

Data collection involved administering the questionnaires to the athletes, after which the responses were coded and analyzed using SPSS version 24. Statistical analyses included Mean, Standard Deviation, Percentage, and Independent Sample t-test.

Data Analysis

Following is the analysis of data using different statistical tools in the shape of tables.

Table 1. Descriptive Statistics - Attitudes of elite athletes towards doping in clean sport

Testing Variable	N	Minimum	Maximum	Mean	Std. Deviation
Attitude of Athletes	168	3.11	3.67	3.4345	.24015

According to the above table, respondents with a Mean Score of 3.43 and Std. Deviation .240 admitted that they have a very positive attitude towards doping clean sport.

Table 2. Difference between the attitudes of male, female, national, and international elite athletes towards doping clean sport

Testing Variable	Gender	N	Mean	Std. Deviation	t	Sig.
Attitude of Athletes	Male	96	4.4375	.23766	.185	.003
	Female	72	2.4306	.24506		
Testing Variable	**Level**	**N**	**Mean**	**Std. Deviation**	**T**	**Sig.**
Attitude of Athletes	National	113	2.4356	.24143	.083	.004
	International	55	4.4323	.23972		

Table 2 shows the mean differences in the attitudes of respondents towards doping clean sport based on their gender and level of sports participation.

Accordingly, the males were rated higher than females in the perspective of their attitude towards doping clean sport (4.43 > 2.43). Meanwhile, the athletes who

participated at the national level were rated lower than those who participated at the international level in terms of their attitude towards doping clean sport (2.43 < 4.43).

Table 3. Role of Elite Athletes in Doping Clean Sport

	N	Minimum	Maximum	Mean	Std. Deviation
Role of Elite Athletes	168	4.00	4.40	4.0542	.06273

Table 3 portrays the viewpoint of elite athletes concerning their role in the prevention of doping in sports. Based on the above statistics, participants reported mean score and Std. Deviation of 4.40 and 4.05, respectively. These scores indicated that the role of elite athletes in the prevention of doping in sports is quite significant.

Table 4. Difference between Male, Female, National, and International Elite Athletes regarding their Role in Doping Clean Sport

Testing Variable	Gender	N	Mean	Std. Deviation	T	Sig.
Role of Elite Athletes	Male	96	4.5010	.05025	-.745	.002
	Female	72	3.5083	.07645		
Testing Variable	**Level**	**N**	**Mean**	**Std. Deviation**	**T**	**Sig.**
Role of Elite Athletes	National level Athletes	113	3.4504	.05022	-1.104	.001
	International level Athletes	55	4.5018	.08276		

Table 4 shows mean differences among the viewpoints of elite athletes concerning their role in the prevention of doping in sports based on their gender and level of sports participation. The viewpoint of male athletes was found significantly different from females in respect of their role in doping clean sports (P < .05). Similarly, a significant difference was recorded between the roles of respondents in doping clan sports based on the level of their sports participation (P < .05).

Table 5. The viewpoint of elite athletes regarding the use of doping

Testing Variable	N	Minimum	Maximum	Mean	Std. Deviation	Use of doing in %
Use of Doping	168	1.82	2.64	2.4172	.07753	7.7%

Table 5 represents the exposure of elite athletes in respect of doping in sports. According to the analyzed data, 7.7 % of respondents admitted that they used legal substances for the enhancement of sports performance.

Table 6. Differences between male, female, National, and International elite athletes regarding the use of doping

Testing Variable	Gender	N	Mean	Std. Deviation	T	Sig.
Use of Doping	Male	96	2.4242	.18022	.504	.615
	Female	72	2.4078	.24221		
Testing Variable	Level	N	Mean	Std. Deviation	T	Sig.
Use of Doping	National level Athletes	113	3.4063	.21184	-.974	.002
	International level Athletes	55	1.4397	.20159		

According to Table 6, the use of sports doping among male elite athletes did not significantly differ from female athletes (P > .05). Meanwhile, the exposure to doping in sports among those who participated at the national level was found greater than those who participated at the international level (3.40 > 1.43).

Findings

The following main findings have been extracted from the analyzed data.

1. The obtained results from the study uncovered that respondents were found to have a very significant attitude related to doping clean sports (Table 1).
2. The attitude of male athletes was found more positive than that of females in relation to doping clean sports. Similarly, athletes who participated at the national level were rated lower than those who participated at the international level in perspective of their attitude towards doping clean sport (Table. 2).
3. Evaluating the role of elite athletes, the analyzed data indicated that the role of elite athletes in the prevention of doping in sports is quite significant. (Table. 3).
4. The results indicated that the viewpoint of male athletes was found significantly different from females with respect to their role in doping clean sports. Similarly, a significant difference was recorded between the roles of respondents in doping clan sports based on the level of their sports participation (Table. 4).
5. The analyzed data have shown that a very small portion of the respondents admitted that they use legal substances for the enhancement of sports performance (Table. 5).
6. No statistical difference was noticed in sports doping, based on gender. However, a statistically significant difference was found in sports doping

based on their level of sports participation (Table. 6).

Discussion

The primary purpose of this particular study was to determine the attitudes of elite athletes, their role towards doping clean sport, and the use of doping by elite athletes. The researchers found a positive attitude among elite athletes towards doping clean sport. 74% of elite athletes opine that doping is a waste of money and a big danger to human health. Similar results were demonstrated by Peretti-Watel et al. (2004) who concluded that almost 90 % of respondents were of the view that doping is dishonest, unhealthy, and risky for health. A study by Alaranta et al. (2006) stated that 74.0 % of athletes replied that PEDs are dangerous for their health. Similarly, Dascombe et al. (2010) reported that the majority of respondents replied that the use of PEDs poses significant health risks and violates the ethical principles of fair competition in sports. The study in hand shows that 70% of respondents said that proper diet plans and strength training help to avoid doping. Equivalent results were found in the Alaranta et al. (2006) study which reported that 96.9 % of the athletes were of the view that with the right diet and nutrition, athletes can achieve international-level performance without resorting to banned substances or methods. The same results concluded by Al Ghobain et al. (2016) that 87 % of athletes prefer the use of nutritional supplements rather than doping.

Furthermore, the present study concludes that the role of elite athletes in doping clean sport is positive. The athletes' role cannot be ignored regarding doping clean sport. The athlete is responsible for taking any type of banned substance whether he is aware of that or not. This is also supported by Vlad et al. (2018) who concluded that from the legal point of view, 100% of athletes are responsible for the use of doping. Further, he argues that it is the athlete's body that consumes the banned substances whether they enter accidentally or willingly. The present study at hand reveals when asked the athlete regarding their role in doping-clean sports, 96% of athletes replied that they want to be recognized for their achievements, ensuring that no one questions whether their success was earned through unfair means. Further, the study identifies that 97% replied yes and they make sure that maintaining a balanced diet, getting plenty of rest, and ensuring a good night's sleep are essential for optimal athletic performance and overall well-being to be successful in events. The athletes are also of the view that

should be the focus and get themselves prepared before the competition.

The study in hand found and concluded that 7.7% use doping by elite athletes in Pakistan. In a study on doping among athletes in Uganda, 9.3% of participants reported having been offered a doping agent at some point, while 3.9% admitted to recent use of such substances (Muwonge et al., 2015). Al Ghobain et al. (2016) indicated the summary regarding the frequency and attitudes of doping use by Saudi athletes in various sports events from all regions of Saudi Arabia, the study acknowledged 4.3% of doping use in athletes. Furthermore, the study concluded that the use of doping in Saudi athletes is common. Athletes believe that the use of such banned substances is against the spirit of sports, and they would be liable to punishment, but still, they are using these. In the present study, when asked to list the most important reason for the use of doping, the athletes replied that 88% use it for success in the event. Striegel et al. (2002), described that 86% of athletes reported that the most dominant reason for doping was success in an athletic event. In another study, Nieper (2005) reported that 25% of athletes admitted that they used doping for the improvement of their performance in sports. Similar results were displayed in a study that revealed that 22% of athletes use doping to increase muscle performance. Another study by Bloodworth et al. (2012) reported that 15% of athletes use doping to be successful in the sport. The study Lentillon-Kaestner & Carstairs (2010) interviewed young elite Cyclists. They admitted that after they become professionals and if they believed that doping would excel in their cycling career, they would prefer to use it. All of the above studies supported the study in hand. In the present study, 50% of athletes who are using or have used doping replied yes, with a restriction that they use doping to get fit. Similar conclusions were found in a study by Vlad et al. (2018) demonstrated that athletic injuries are another factor that many athletes ruin their clean athletic career and start using doping to get fit and return to the field soon.

Conclusion

In a study in hand, it was documented that elite athletes have a very positive attitude towards doping clean sports and they considered themselves as one of the important agents responsible for doping prevention. It has also been noticed that a small portion of the respondents admitted that they use illegal substances for the enhancement of sports performance.

Therefore, there is a dire need to abreast them with knowledge of the hazards of doping and have a secure attitude against doping in sports.

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