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EXPLORE THE KNOWLEDGE, ATTITUDE AND PERCEPTION OF DOPING AMONG PHYSICAL THERAPY STUDENTS OF VARIOUS INSTITUTES IN FAISALABAD

Original Research

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Abstract

Background: The use of prohibited performance -enhancing materials by athletes as a mean of cheating is known as doping in competitive sports. The term “doping” is commonly employed by regulatory bodies that oversee athletic events. Olympic Committee and the majority of international sports organizations forbid the use of pharmaceuticals to improve performance because they view it as unethical.

Objectives: To evaluate knowledge attitude and abuse concerning doping in among physiotherapy students. To screen and provide awareness in students about doping.

Methods: The study design was Cross sectional study. Sample size was 110 Students from different universities of Faisalabad (study setting). Students with 19-25 years and final year students were included. Students with any psychological issue and non DPT students were excluded. Sampling technique was used Purposive sampling technique. Questionnaire (Likert Scale) with 5 parts was used as outcome measure tool. SPSS was used for analysis.

Results: The participation of gender in study was as follows: females that were 59.09% and of males were 40.19%. Out of 110 students 104 students never took a prohibited performance drug. Out of 110 students 45 were influenced by media, 22 by friends, 9 by coach, 12 by sport mate whereas 22 by other. According to the results the majority of students had knowledge about doping substances.

Conclusion: It concludes that majority of students demonstrated a strong understanding of doping and its associated risks, some exhibited misconceptions or lack of awareness. The majority of respondents expressed a favorable opinion of not using doping agents, and the majority had never used medications for doping.

Keywords: Drug Abuse, Substances, Knowledge of doping, Attitudes towards doping, Perception of doping, Physical therapy students, Doping in sports, Anti-doping education, Performance-enhancing drugs, Healthcare professionals’ awareness, Sports ethics and doping.

INTRODUCTION

Doping is the use of synthetic drugs or other methods to improve athletic performance. About 2% of doping tests result in a positive result. According to the report, over thirty percent of elite athletes who compete have utilized drugs to improve their performance. According to the report, over thirty percent of elite athletes who compete have utilized drugs to improve their performance (1). The main weapon in the fight against doping is education. Specific cultural contexts could be crucial for anti-doping education initiatives. Policies aimed at combating doping must take into consideration the cultural and social environments in which doping may be practiced (2).Anti-doping instruction appears to be provided to coaches only infrequently, as preparing elite athletes and avoiding a positive drug test seem to take precedence. Knowledge-focused, affective-focused, social skills-focused, life skills-training, and ethical-and value-based were the five approaches that were found (3). Education tactics have drawn a lot of attention for their involvement in doping prevention during the past ten years due to the occurrence of doping. An extensive array of anti-doping education programs has been established, taking public opinion and health concerns into account. Anti-doping education was observed to improve anti-doping knowledge following the intervention in Italian non-athlete samples (4).

The rising popularity of sports among young people and the tightening of regulations placed on athletes by authorities particularly with regard to prohibited substances—have made the use of dietary supplements a significant area of research. Many supplements are not as effective as their producers claim, and others may contain compounds that are banned in sports or be dangerous to health, which can lead to failed doping tests. Young athletes have different (5). Over the past ten years, there has been an increase in demand for and interest in using evidence in physical therapy practice. The practical use of evidence may be impeded by the incapacity to do any of these tasks. Analyzing the discrepancy between research and evidence revealed that the magnitude and complexity of the body of research, the difficulty in obtaining evidence, organizational obstacles, and inadequate training were among the issues with putting evidence into practice. Many authors have noted the lack of time available for finding, analyzing, and applying research to specific patients (6). Anti-doping (AD) instruction has mostly been given to athletes competing on an international scale. Many athletes believe AD does not apply to them because the majority of athletes that undergo doping control are elite athletes competing at the highest levels of national or international competition. However, AD education programs should be used with all athletes in order to develop an understanding about doping as a part of the laws of sport. It is imperative that all athletes, regardless of their level of competition, comprehend and follow AD regulations (7).

Sports physical therapists might serve as consultants for sports organizations or work one-on-one with athletes. Sports physicians in New Zealand dealing with elite athletes face ethical dilemmas. The three most crucial ethical concerns were determined to be confidentiality, return to play, and conflicts of interest. The literature has also recognized a number of other ethical concerns, including as the use of local anesthetics and doping, the encouragement of risky behavior, advertising and promotional efforts, and the use of novel procedures (8). People who are looking for knowledge and assistance in their career, hobbies, or interests are influenced by social media, which provides support in several areas of life. Social media has expanded to niche markets. One such market is athletes who attend college who are interested in learning more about doping and supplement use in sports from one another. Athletes and sportsmen attempted to exchange expertise, experiences, and information with one another. Numerous online platforms, including web forums, listservs, message boards, and social question-and-answer sites related to sports and other subjects, are available for exchanging information. It's critical to comprehend how college students use social networking sites for sports information doping in order to comprehend the effects of doping in sports. Additionally, their perceptions operate as a mediator in how they engage with a system. In order to understand why users utilize or do not use social networking sites for sport doping information, it is intended to examine college students' perspectives of social networking sites in connection to doping in sports (9).

In addition to athletes, physical education teachers, and students at sports institutions, several anti-doping education programs are currently being implemented that target much broader demographics, such as students at non-sporting universities and colleges, schools, and even preschoolers. Although these anti-doping education programs target different (10).

The goal of anti-doping education is underlined to include not only the dissemination of information but also the development of true sports values and anti-doping cultures. Special attention is paid to the cultural aspects of fair play ideology and its moral dimensions, which include the importance of an honest triumph, in anti-doping teaching campaigns. Instructors typically encounter no challenges regarding the content of anti-doping education programs because there is an abundance of thorough educational resources available in various manuals, textbooks, and reference materials (11). The rationale behind this research was to amplify their knowledge and awareness about doping among Physical therapy students. Research on knowledge, attitude and perception about doping is significant because it helped to educate students about risk and consequences of doping. It helped students to identify new substances and methods for doping, leading to better testing and prevention strategies. It also helped raise awareness about the risks and consequences of doping. So, it is all about enhancing knowledge about doping among students.

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METHODS

A cross sectional study was carried out in The University of Faisalabad and Riphah International University Faisalabad. The study was completed in four months after approval of synopsis. Data was collected from 150 students via Non probability, Purposive sampling technique. Indicating their willingness to collaborate with the researcher and take part in the study in full. Population screening was done by using questionnaire formulated according to the set criteria. Participants who met the inclusion criteria of this study were included in study and those who do not meet the inclusion criteria were excluded from the study. The study included the participants from 4th and final year Students of DPT. Data was collected by A questionnaire consist of 5 parts, 1. Personal information, 2. Knowledge of doping substances, 3. Views on reasons for doping, 4. Attitude toward doping and 5. Use of doping agents among sportsmen.

After taking consent form the Questionnaire were handed to the included participants of the study and asked them to fill out the questionnaire form which was Likert scale. Data was collected from various universities. Data was arranged in a proper way. Measurements taken from participants were evaluated carefully then carefully data was entered in SPSS sheet for analysis and revised to eliminate the chances of errors.

Data was analyzed through SPSS (Statistical Package for Social Sciences) Version 26. Frequency and mean ± standard deviation measured for descriptive analysis of quantitative data. Pearson correlation was used for correlation between the substances.The University issued a data collection letter. Consent was obtained from the various universities (Research Center). Participants were guaranteed that their data was used for research purposes only. All relative information regarding study for provided to participants before taking consent.

RESULTS

In this study there were 110 respondents in two different age groups between 19 to 25 years. Frequent age was 22 and 23 years with respect to its frequency. Out of 110 participant 40.9 % were male and 59.1 % were female.

In response to the question regarding substances that could have doping or performance-enhancing effects in sport, participants exhibited varied levels of agreement. For amino acids, 17 participants agreed, 69 disagreed, and 24 were unsure. Diuretics were agreed upon by 16 participants, while 57 disagreed and 37 remained unsure. Regarding energy drinks, 24 participants agreed, 65 disagreed, and 21 were unsure. When asked about growth hormone, 36 participants agreed, 48 disagreed, and 26 were unsure. Narcotics received the highest agreement, with 61 participants agreeing, 29 disagreeing, and 20 unsure. Stimulants saw 37 agreements, 22 disagreements, and 51 participants expressing uncertainty. Lastly, vitamins were perceived as having performance-enhancing effects by 58 participants, while 25 disagreed and 27 remained unsure. These responses highlight diverse opinions among participants concerning the potential doping effects of various substances commonly associated with sport.

Out of 110 participants 4 strongly disagreed, 16 were disagreed whereas 35 were neutral and 55 were strongly agreed that “Change body shape and build a muscle mass within a short period of time” as a part of question “Doping Drugs Are Used in Sport with an Aim To?”

Table 1: Combined Frequency and Percentage Distribution of Motivations for Using Performance-Enhancing Methods

Reason	Strongly Disagree	Disagree	Neutral Agree	Strongly Agree
Change body shape and build muscle mass within a short period of time	4 (3.6%)	16 (14.5%)	35 (31.8%)	55 (50.0%)
Enhance sport performance in local and international competitions	8 (7.3%)	21 (19.1%)	32 (29.1%)	49 (44.5%)
Merely imitate others	N/A	29 (26.4%)	70 (63.6%)	11 (10.0%)
Pick the easy option due to lack of desire to put in effort	N/A	22 (20.0%)	61 (55.5%)	27 (24.5%)

This table presents the combined frequency and percentage distribution of participant responses for four motivations related to the use of performance-enhancing methods. The motivations assessed include the desire to change body shape and build muscle mass rapidly, the aim to enhance sports performance in both local and international competitions, imitation of others, and choosing the easy option due to a lack of motivation to put in effort. Each motivation is evaluated across response categories: Strongly Disagree, Disagree, Neutral Agree, and Strongly Agree, highlighting the most prevalent reasons participants cited.

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Table 2: Ethical Perspectives on Doping Agents

Statement	Response Category	Frequency (%age)
Taking a doping agent is an ethical deed	Strongly Disagree	63 (57.3%)
	Disagree	38 (34.5%)
	Neutral	9 (8.2%)
	Total	110 (100%)
I respect individuals who take doping agents	Strongly Disagree	65 (59.1%)
	Disagree	40 (36.4%)
	Neutral	3 (2.7%)
	Agree	2 (1.8%)
	Total	110 (100%)

Out of 110 participants 63 were strongly disagreed, 38 were disagreed whereas 9 were neutral that "Taking a doping agent is an ethical deed "as a part of question "To What Extant Do Agree with the Following Statements?". 65 participants strongly disagreed, 40 were disagreed whereas 3were neutral and 2 agreed that "I respect individuals who take doping agents "as a part of question "To What Extant Do Agree with the Following Statements?"

Table 3: Combined Frequency and Percentage Distribution of Attitudes Toward Awareness of Doping Substances' Adverse Effects

Statement	Disagree	Neutral	Agree	Strongly Agree	Total
Proper awareness concerning adverse effects of doping substances can help minimize their usage	3 (2.7%)	17 (15.5%)	69 (62.7%)	21 (19.1%)	110 (100%)
Physiotherapists should help promote awareness about adverse effects of doping substances	2 (1.8%)	7 (6.4%)	48 (43.6%)	53 (48.2%)	110 (100%)

This table presents the frequency and percentage distribution of participant responses regarding awareness of the adverse effects of doping substances. The first statement assesses whether proper awareness can minimize the usage of these substances, while the second statement evaluates the role of physiotherapists in promoting such awareness. Responses are categorized as Disagree, Neutral, Agree, and Strongly Agree, illustrating the participants' attitudes towards the importance of awareness and professional involvement in minimizing doping usage.

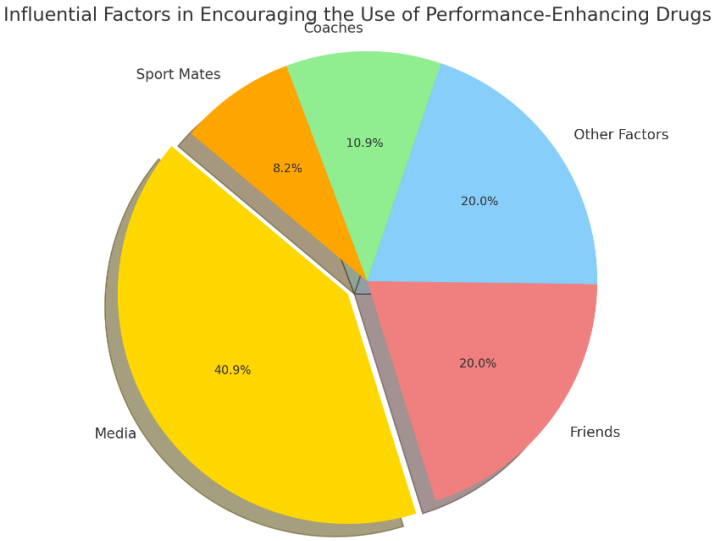

Figure 1 influential factors

The pie chart displays the most influential factors in encouraging the use of performance-enhancing drugs among participants. The media is the most significant influence, accounting for 45% of responses. Friends and other factors each influence 22% of participants. Coaches and sport mates are less influential, with 12% and 9% respectively, highlighting that external media sources play a major role compared to personal relationships or team dynamics.

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DISCUSSION

The purpose of the investigation was to investigate the knowledge, attitude, and perception of doping among physical therapy students in various institutes of Faisalabad which revealed a very complex landscape. To evaluate student's understanding of the doping idea, a list of different substances utilized by athletes was chosen. While majority students were aware that stimulants, anabolic steroids, and growth hormones are doping agents, the some were unable to name the less well-known compounds, such as β-blockers, opioids, and diuretics. However, many of the respondents believed that non-doping drugs, such as energy drinks, vitamins, and AAs, were doping agents (12).

Deng Z et al (2022) conducted a study objective was to assess the impact of the World Anti- Doping Agency's online anti-doping education program on Chinese college athletes' and non- athletes' knowledge of, attitudes toward, and propensity to dope. According to the results, Chinese collegiate athletes and non-athletes respond only partially favorably to the online anti-doping education campaign. Moreover, our results demonstrate improved cognitive control following the educational intervention in suppressing an implicit proponent attitude regarding doping (13). The current study did research on final year students of physiotherapist in Faisalabad to assess the knowledge, attitude, and perception of doping among them. According to the results, the current study found majority of students had excellent understanding of well-known doping substances and favors with the previous mentioned

Conclusion that educational intervention can suppress an implicit proponent attitude regarding doping cause the participants in the present study were final year students.

Like the previously mentioned study the current study also had majority of students who got to know about doping substances through social media by 45% and majority of the students never used doping substances in real life. But it contrast with the conclusion that physiotherapists knew little about doping as the current study results indicate that majority of upcoming physiotherapy students are very well aware of doping substances.

Kim T et al (2017) conducted a study aimed to assess elite Korean adult and teenage athletes' doping knowledge, behaviors, and attitudes in order to deliver useful data on anti-doping regulations and educational initiatives. They conclude that compared to those in the team group, the teenage athletes in the motor skill category were more lenient when it came to doping (14). The current study contrasts with the previous mention study as it found excellent understanding of doping substances among the physiotherapist students appeared in final year whether they are in any team or not.

The study faced limitations primarily due to the sample size and the specific demographic of physical therapy students from institutes within Faisalabad, which may not fully represent the wider population of healthcare students. This constrained the study's generalizability, as the findings may not be applicable beyond the local context or to other healthcare disciplines. To build upon these findings, future research should broaden its scope by including a more diverse sample of physical therapy students from various regions, institutes, and academic levels. This would improve the reliability and applicability of the results. Additionally, incorporating a mixed-methods approach—combining quantitative surveys with qualitative interviews or focus groups—could provide deeper insights into the factors that influence students' knowledge, attitudes, and perceptions of doping. Collaborating with educational institutions and sports authorities to offer practical exposure to anti-doping policies and practices could further enhance students' understanding, promoting a sense of responsibility in their future roles as healthcare professionals.

CONCLUSION

In conclusion, our investigation into the knowledge, attitude, and perception of doping among physical therapy students in various institutes of Faisalabad concluded that majority of students exhibited misconceptions or lack of awareness about doping and most doping substances. Some of them demonstrate having knowledge about doping and its health related risks.

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