

ORIGINAL ARTICLE**Qualitative Analysis of The Management of Cases of Abuse of Drugs and Sports Supplements in Non-Professional Athletes****Rahman Soori^{1*}**, **Mohammad Mohammadi²**

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Extended Abstract**Introduction**

Over the past three decades, public attitudes toward sports have shifted significantly. The rise of sports schools, active athletic federations, increased investments in sports, and the expansion of physical education programs highlight this transformation. However, the inflated growth of competitive sports has led to negative consequences, such as the commercialization of athletes and excessive rewards, fueling unhealthy ambitions in young athletes (Shahbazi et al., 2019). A major challenge in sports is the misuse of performance-enhancing drugs (PEDs) and dietary supplements, which pose serious health risks and have even caused fatalities (Kabiri et al., 2018). According to the World Anti-Doping Agency (WADA, 2015), any substance or method that artificially enhances performance violates anti-doping regulations. The issue is so critical that UNESCO adopted the International Convention Against Doping in Sport in 2005, which Iran later joined (UNESCO, 2014). Doping is defined as the use of unnatural substances or techniques to boost athletic performance artificially. Research indicates that both Iranian and global sports are tainted by doping, though in Iran, it is often disorganized and driven by individual decisions or misguided coaching (Biranvand et al., 2021). Factors like career uncertainty, pressure to win, peer influence, and lack of awareness about banned substances contribute to doping among athletes (Hosseini et al., 2021). Studies such as Badiua et al. (2016) suggest that social factors—family, club environments, and socioeconomic status—also play a role in doping tendencies. While anti-doping measures like drug testing and education have been implemented, education remains the most cost-effective solution (Shahbazi et al., 2019). However, research on athletes' attitudes across different sports remains limited, calling for deeper behavioral and social analyses (Shakeri et al., 2020). Evidence shows that PED and supplement misuse leads to poisoning, nutritional imbalances, and psychological harm (Daher et al., 2021). Unfortunately, the lack of a comprehensive national anti-doping strategy is evident. Thus, this study qualitatively examines the management of drug and supplement misuse among non-professional athletes.

Methodology

This study employed a qualitative approach using thematic analysis. The process began with transcribing recorded interviews verbatim. The target population comprised 450 individuals, including sports science experts, researchers, coaches, physicians, sports club managers, and officials from provincial sports and youth departments across Iran. Participants were selected for semi-structured interviews following qualitative research principles, where sampling continued until theoretical saturation was achieved—that is, until no new insights emerged from subsequent interviews. Saturation occurred after interviewing 50 participants. All interviews were conducted by the lead researcher, with strict adherence to ethical guidelines. Participants were informed of the study's objectives, their right to withdraw at any stage, and the confidentiality of their responses.

Data Analysis

The analysis followed a three-phase coding process:

Open Coding: Extracting raw data from interview transcripts and generating initial codes.

Axial Coding: Grouping codes into categories and subthemes.

Selective Coding: Identifying core themes and their interrelationships.

The goal was to develop a nuanced understanding of PED and supplement misuse, with follow-up questions tailored to participants' responses to deepen insights.

Validity and Reliability

- **Internal Validity:** Ensured through alignment with qualitative research paradigms and theoretical frameworks.
- **External Validity:** Achieved via rich data description, cross-case analysis, and systematic coding procedures.
- **Reliability:** Maintained through standardized interview protocols, structured data collection, and convergent analysis of interviews.

The analytical process thus involved two key stages:

1. **Open Coding:** Data extraction and preliminary label generation.
2. **Axial Coding:** Theme development and category formation.

Results

The findings revealed that 71.82% of participants were male, and 28.18% were female. Regarding professional experience, 40.28% had over 15 years of work experience, while 59.72% had fewer than 15 years. Academically, 86.94% held a Ph.D. in sports sciences. Three key factors influencing substance misuse were identified:

1. Structural Factors:

- Media influence (Codes P1, P2, P10) and athlete-endorsed educational programs (P8, P9, P15) played pivotal roles.

- Easy access through pharmacies (P43, P44, P8) and supplement stores (P34, P36, P17) was reported.

2. Contextual (Financial/Material) Factors:

- 80% of athletes (P10, P13, P19, P6) believed supplements enhanced performance.

- Proposed solutions included incentives for "clean" athletes (P49, P50, P37) and increased anti-doping funding (P2, P3, P17, P20).

3. Content-Based (Educational/Cultural) Factors:

- Family education (P15, P16, P17, P25) and mandatory coach training (P8, P32, P33, P46) were deemed essential.

- Cultural initiatives (P22, P32, P12, P42) and prioritizing health over medals (P12, P24, P17) were highlighted as key strategies. In summary, a combination of structural policies, financial support, and continuous education is vital to reducing doping among non-professional athletes.

Discussion and Conclusion

The present study aimed to qualitatively analyze the misuse of drugs and sports supplements among non-professional athletes. Participants elaborated on relevant factors in response to questions aligned with the research objectives. Through the analysis of their statements and perspectives, 46 concepts were extracted, which were later categorized into 8 main themes during secondary coding: audiovisual media, accessibility, material and financial factors, athletes' attitudes, education and research, ethical and cultural factors, supervision, and recommenders. These themes were further classified into three major categories: structural, contextual, and content-related factors. The findings of this study confirm that the use of performance-enhancing substances is an undeniable reality among both professional and non-professional athletes.

Structural Factors

Regarding the role of audiovisual media in the misuse of drugs and sports supplements among non-professional athletes, the results align with previous studies (Biranvand et al., 2021; Shahbazi et al., 2019; Kakhki et al., 2019; Safari Takieh et al., 2018; Joram et al., 2006; Bahrami, 2018). Media serves as one of the most significant phenomena of the information age, helping audiences enhance their knowledge and awareness. However, media consumption should not be habitual or merely for entertainment; instead, it should involve critical engagement with content (Joram et al., 2006). Higher media literacy in society can act as a barrier against many health-related issues, including the misuse of supplements. Mass media can promote public health by educating individuals on the risks of self-administered sports supplements and performance-enhancing drugs. Concerning accessibility, the study found that coaches, friends, teammates, and gym managers (with mean scores of 3.1, 3.2, and 3, respectively) had the most significant influence on athletes' decisions to use these substances. This highlights that individuals closely associated with sports

play a crucial role in promoting or discouraging substance misuse. The findings are consistent with studies by Alidosst Ghafarkhi et al. (2017), Arazi & Salehi (2013), Hozouri et al. (2011), Daher et al. (2019), and Shahbazi et al. (2019). Many coaches believe that the benefits of performance-enhancing drugs outweigh the risks, leading them to overlook educating athletes about potential harms—a perspective that contrasts with that of nutrition specialists (Alshammari et al., 2017). The Australian Sports Medicine Federation (Garad, 2015) emphasizes that coaches' beliefs significantly influence athletes' nutritional choices.

Supervision also plays a critical role, as evidenced by studies (Hosseini et al., 2021; Safari Takieh et al., 2019; Eskandaryoun et al., 2018; Alidosst Ghafarkhi, 2017; Arazi & Salehi, 2013). Given the widespread use of supplements among non-professional athletes, stricter regulations on production, import, and distribution are necessary. The illegal sale of these substances without prescriptions exacerbates the problem, suggesting that actual misuse rates may be higher than reported. Without proper oversight, irreversible harm may be inflicted on young athletes. Lazarus (2010) suggests that reducing the availability of anabolic steroids, enforcing strict sales regulations, and educating users about short- and long-term effects can curb misuse.

Contextual Factors

Material and financial factors significantly influence substance misuse, as supported by Habibi et al. (2016), Nakhaei & Pakravan (2013), and Shoushtari Zadeh et al. (2013). Implementing incentive programs for drug-free athletes and allocating anti-doping budgets (for educational workshops and increased testing) could help prevent misuse among non-professional athletes. Athletes' attitudes also play a pivotal role, as demonstrated by Kashi et al. (2018), Kakhki et al. (2019), Fallahi & Hemmat (2019), Hosseini et al. (2021), Shadmanfat (2020), and Daher et al. (2021). Sarkar et al. (2014) found that supplement use varies widely among athletes, influenced by multiple factors. Strengthening awareness of the adverse effects of anabolic steroids can reduce consumption. Shamsaei & Ahmadian (2020) highlight the preventive role of deep religious beliefs against performance-enhancing drug use. Without proper educational interventions, misconceptions among young athletes may proliferate.

Content-Related Factors

Education and research are crucial in mitigating misuse, as shown by Safari Takieh et al. (2019), Arazi & Salehi (2013), and Ghafarkhi et al. (2017). Since many supplements may contain banned substances, public awareness campaigns and stricter regulations on supplement production and importation are essential. Seminars and media programs on the dangers of these substances can foster informed decision-making.

Ethical and cultural factors also significantly impact substance misuse (Biranvand et al., 2021; Kavussanu et al., 2016; Erickson et al., 2015). While society expects ethical behavior from athletes, modern sports often prioritize winning over integrity (Fallah & Hemmat, 2019). Moral disengagement has been linked to a higher tendency toward doping (Kavussanu et al., 2016). Cultural weaknesses contribute to substance misuse among athletes (Kabiri et al., 2018). Promoting clean sports and ethical behavior can enhance the positive societal impact of athletics.

In summary, eight key factors influence the misuse of performance-enhancing substances among non-professional athletes: athletes' attitudes, ethical-cultural factors, media influence, recommenders, accessibility, financial factors, education, and supervision. Among these, athletes' attitudes, accessibility, and recommenders have the most substantial impact. Given the high prevalence of substance misuse in this population, policymakers and stakeholders must take urgent, coordinated action to implement preventive measures. Failure to address this issue may lead to severe, irreversible consequences for young athletes.

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KEYWORDS

Barriers to Abuse, Drugs and Sports Supplements, Non-Professional Athletes, Qualitative Analysis.

