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The Rise of Peptide and Anabolic- Agent Use in India's Gen Z Fitness Culture: Prevalence, Motivations, and Health Risks

Arnav Rao

Student, Oberoi International School, Mumbai, Maharashtra, India

ABSTRACT: This paper discusses the emergence of the use of peptide and anabolic-agent among Generation Z of the Indian fitness culture, its prevalence, rationale, and health consequences. The studies review literature available in the field of public health, sports science, and psychology using secondary data found in Google Scholar. The results show that there is growing activity on performance-enhancing drugs and this is due to the social media tool that we have, which is Instagram and Youtube. Of primary importance are body image issues, performance enhancement and social validation. The paper also notes high physical and psychological health risk factors, and the absence of research on India, highlighting the necessity of further research and educating.

KEYWORDS: Anabolic Agents, Peptides, Generation Z Fitness Culture

I. INTRODUCTION

The fast development of a fitness culture among Generation Z in India has been among the high contributions of social media, body image ideals, and the growing awareness of physical health. Instagram and YouTube are some of the platforms that have been leading in the formation of the ideal physique that frequently supports a lean, muscular, and aesthetically designed body (Shah and Vidani, 2025). This has made some youths rush towards quicker and more efficient ways of meeting these norms which has helped in the increase in interest towards the use of performance enhancing substances.

Of these substances, anabolic drugs including anabolic-androgenic steroids (AAS) and newer substances like peptides have become popular in gym and fitness circles. Although such substances are at times medically applicable, their non-medical application in muscle building and fat reduction causes serious health effects (Sindhuja et al., 2023). The existing studies in the world indicate possible risks as hormonal imbalance, cardiovascular issues and psychological consequences related to abuse.

Empirical evidence of the prevalence and drives behind such use is still insufficient in the Indian context and especially among Gen Z (Manish et al., 2025). The purpose of this study is to determine how widely peptides and anabolic-agents are used, what motivations are behind this growing trend, and to critically evaluate the health hazards of this growing trend in the changing fitness culture of India.

II. RATIONALE AND OBJECTIVE

The growing interest of the Generation Z in India in the fitness culture has also resulted in an increased focus on pursuing idealised body images, usually mediated by the Internet and social media, especially Instagram and YouTube. This has helped to increase the consumption of the performance-enhancing drugs, such as peptides and anabolic agents, even with health threats. Nevertheless, the research on this trend in the Indian context is not thoroughly studied (PREMARAJ, 2025). The study is thus required to fill this gap by analyzing the patterns of its use, reasons behind it, and its health consequences such that it becomes a source of knowledge and perception of health to academia and the broader population.



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Objectives:

The main aim of the research project is to explore how common the use of peptide and anabolic agents amongst individuals who are doing fitness activities in India is. Secondly, the research will examine the most significant reasons that drive them to use them, such as concerns with body image, influence of social media, and performance enhancement (Ganu et al., 2024). Lastly, the study aims at investigating the possible health hazards of non-medical use of such substances, physical and psychological effects. By fulfilling these purposes, the proposed study aims to offer a deep-rooted insight into this new problem and present the knowledge that can be used in the future to make health policy and health awareness programs.

III. METHODOLOGY

The paper is based on a secondary research methodology, where only academic sources have been used to explore the use of peptides and anabolic agents among Generation Z in the fitness community of India (Christiansen, 2020). The peer-reviewed journal articles, review articles, and scholarly publications will be gathered in Google Scholar. Keywords like; anabolic steroid use, peptide use, fitness culture, and Gen Z behaviour are used to identify relevant literature in the field of public health, sports science, and psychology. This method allows the researcher to generalise the present knowledge and detect the patterns and make informed conclusions without having primary data collection.

It uses a qualitative approach to analysis, concentrating on the analysis and comparison of results of various reliable sources. This implies that prevalence patterns, motivational issues, and related health risks as presented in previous studies can be understood comprehensively (Evangelista, 2023).

Science Ethical issues are upheld during the study. All the sources are referenced properly to prevent plagiarism and provide academic honesty. Being a qualitative study, the issue of risks associated with consent, confidentiality, and protection of personal information are reduced since there are no human respondents or primary data gathering (Wenbo and Yan, 2023). The research is ethical by the standard procedures of academia as it is transparent, precise, and its use of the available literature is responsible.

IV. LITERATURE REVIEW

The rise of fitness culture in the Generation Z has contributed to the development of scholarly interest in the application of performance-enhancing drugs, such as anabolic drugs and peptides. Although most of the research that exists is international, there is an emerging debate suggesting the same patterns in India, especially in the city fitness settings (McVeigh, 2018). The literature review follows five major themes to organize the information which include prevalence of substance use, effects of fitness culture and social media, reasons behind use, health hazards, and Indian research gap.

Theme 1: Prevalence of Anabolic and Peptide Use in Fitness Communities

Evidence regarding the use of anabolic-androgenic steroid (AAS) suggests that non-medical use of performance-enhancing substances is an increasing concern to worldwide community health. A recent examination of AAS use in areas like North America, Europe, and some parts of Asia indicates that the use of AAS is especially high among young men engaged in bodybuilding, strength training, and recreational gym exercise (Badr el Dine and Attia, 2022). Notably, researchers note that this application is no longer a prerogative of elite, professional athletes, but has seeped into everyday fitness settings, where people are seeking quick physical results and a better appearance. The differences in the prevalence rates reported are sometimes attributed to the differences in the research design, sample populations and sensitivity of self-reported substance use (Jain et al., 2025).

Empirical evidence is also relatively low and disjointed in the Indian context. Nevertheless, recent academic commentary and more limited research indicates that the use of anabolic steroids is more and more apparent, especially in gym environments in larger cities (Pereira et al., 2029). This problem is partially caused by the absence of strict control and medical supervision of these substances, where people can usually get them via informal contacts like gym trainers, friends, and the internet market. This convenient accessibility is a cause of concern about the quality and safety of the substances one ingests (Al-Harbi et al., 2020).



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Besides anabolic steroids, peptides are a relatively new topic of discussion in the fitness communities. The benefits of these compounds are usually sold to promote increased muscle development, fat loss, and faster recovery. Although they are becoming increasingly popular, very little scientific and epidemiological evidence has been recorded to show their prevalence particularly in India. Their comparative newness and lack of regulatory clarity also makes the task of determining their use patterns more difficult (Hoseini and Hoseini, 2024).

In general, there is a strong lack of region specific studies in the literature. Large-scale research is urgently required to properly assess the extent and trends of anabolic and peptide use amongst Generation Z in India as the fitness culture evolves.

Theme 2: Influence of Fitness Culture and Social Media

It has been revealed that through the fast growth of digital platforms like Instagram and You Tube, the modern culture of fitness has been greatly altered (Althobiti et al., 2018). These channels foster highly edited visual content which in many cases is a representation of idealised body images, the focus of which is leanness, muscle-bound and cosmetically perfect bodies. Influencers are paramount in the development of these perceptions through content that describes transformation journeys, workout routines, and lifestyle content which may develop aspirational but impractical expectations in viewers (Di Girolamo et al., 2024).

According to scholarly research, repeated exposure to these idealised images may have a negative effect on the body image (especially in young people). As one of the most digitally active generations, generation Z is particularly susceptible to these influences (AlKasasbeh et al., 2024). The content in studies about fitspiration suggests that although it could be beneficial, or lead to more physical activity and healthier lifestyles, it can also cause body dissatisfaction, low self-esteem, and unhealthy comparison behaviours. The stress to match these beauty ideals can lead people to go to extremes in order to attain quick outcomes.

Also, the trend is raising alarm over the normalisation of the use of performance-enhancing substances in the online fitness communities. Certain influencers either directly or indirectly encourage the consumption of anabolic agents or peptides by displaying speedy changes without necessarily revealing how they do it or the risks of it (Zahnow et al., 2018). Such transparency may give the illusion of the truth and this may make the viewers believe that such substances are viable and fair shortcuts to the attainment of desirable physiques.

These dynamics have been heightened in the Indian context by the extensive use of the social media. Global fitness trends and ideals continue to be introduced to urban youth and can potentially affect their behaviours and decisions (Pereira et al., 2019). Consequently, social media does not just influence the perception of fitness, but it is also possible that the increasing trend of substance use in the emerging fitness culture in India is also influenced by social media.

Theme 3: Motivations Behind Substance Use Among Generation Z

To the analysis of this new trend in the trendy Generation Z fitness, it is important to understand the motives behind the use of anabolic and peptides in the culture. Available literature shows a conglomeration of psychological, social and cultural forces that determine such behaviour (Norton, 2017). The need to improve physical appearance is one of the most popular motivations. People who feel dissatisfaction with their bodies have higher chances of seeking quick ways of changing, such as using performance-enhancing drugs, to have socially idealised bodies.

Another important issue is performance enhancement. Although in the past this motivation was considered to be linked with professional sport people, it has now been spread to recreational gym customers (Jong and Drummond, 2020). Most young people desire the development of faster muscles, increased strength, and reduced time to recuperate and, especially, in competitive or beauty-related set-up. This anticipation of getting any visible results in a relatively short time may cause the pressure which makes people think about using the substances that will yield quicker results.

There are also social factors that cause substance use. Groups of peers in the gym settings tend to influence the idea of what is regarded as normal or acceptable behaviour (Raggatt et al., 2018). The trainers or other members who have been in the gym long enough can also advise the user to use anabolic agents or peptides and it is especially true when



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they are made to look like a normal practice or something they need to use to progress. Within these environments, one can be forced to be conformist, in an attempt to fit or deliver similar outcomes (Rogerson, 2024).

Psychological issues are also essential. Low self-esteem, anxiety, and a need to be socially validated are some of the issues that are closely linked with substance use behaviours. The growing importance of digital platforms such as Instagram only serves to make this situation more dynamic as people are in need of external validation in the form of likes, comments, and online certificates (Stollfuß, 2020). The validation requirement can be a potent driving force behind the desire to achieve improved physical appearance in potentially damaging ways, which is the case with Generation Z whose identities are regularly constructed in the digital world.

Theme 4: Health Risks Associated with Anabolic Agents and Peptides

The health hazards of anabolic-androgenic steroids (AAS) are widely reported in medical and popular health publications (Szasz, 2025). These substances have the potential to cause serious negative consequences on physical and mental health, especially when these substances are not taken under medical guidance. Typical physical risks are hormonal disproportions, liver issues, cardiovascular issues, and reproductive ones (Looney, 2024). This has been associated with severe illnesses like high blood pressure, disturbed cholesterol levels and high chances of cardiac diseases after prolonged usage. AAS use in males can lead to the decreased production of natural testosterone and in females, it can lead to masculinising effects.

Besides physical effects, psychological impacts are also of great concern. Studies have shown that mood disorders such as irritability, aggression, anxiety and depression can be linked to AAS use. Others can also become addicted and keep using them even when they are aware of their detrimental effects (Szasz, 2025). These mental effects may have an effect on individual lives as well as social interactions which also increases the dangers.

Peptides, which are sometimes billed as safer or more advanced substitutes to steroids, are also becoming popular in the fitness communities. This perception, however, is not closely substantiated by sound scientific evidence (Kirchmayer and Fratričová, 2020). Most performance enhancement peptides are not non-medical approved, and their safety profiles are not well understood over the long term. Possible risks are metabolic abnormalities, endocrine interference, and negative response due to improper dosage or intake.

One crucial point raised in the literature is the absence of medical advice. These substances are being acquired by many users via un-regulated sources raising the chances of counterfeits, contaminated or substandard products (Bowler, 2020). This is a very high risk especially in an environment with less regulatory enforcement. Altogether, abuse of anabolic substances and peptides is a major public health issue that should be more widely informed and addressed.

Theme 5: Research Gaps in the Indian Context

There is a great gap in research regarding the topic of using peptide and anabolic agents in the context of the Indian population, even though its use is becoming particularly relevant in the fitness circles (Di Girolamo et al., 2024). Most of the literature available is carried out in the Western world, where social-cultural norms, healthcare systems and regulatory measures are quite different in India. This fact may restrict the opportunity of direct applicability of these findings to Indian populations, which emphasizes the necessity of context-specific inquiry.

Much of the debate about steroid and peptide use in India is based on media coverage, case studies or anecdotal evidence as opposed to sound scholarly research. It introduces a disconnect of trustworthy, factual statistics on the actual prevalence and use trends (Ayubi et al., 2023). It is urgently required that systematic, large-scale research should be carried out which analyses these problems in relation to different demographic cohorts with special focus on the new generation, Generation Z, the centre of changing trends in fitness.

Moreover, few studies have been conducted in socio-economic factors as covered in the literature. The accessibility of gym facilities, the cost of performance enhancing substances, the level of health awareness could also play a big role in the behaviour of usage (Liu and Wu, 2019). The influence of local gym culture is also essential, since unofficial guidance by trainers and members of the same group can influence choices about substance use. Nevertheless, these dynamics have never been adequately studied in scholarly literature.



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The other gap in the research is the absence of the research on the awareness and education about the risks of the anabolic agents and peptides. Knowledge and misconceptions of the user base may give some useful information in designing specific public health interventions (Wenbo and Yan, 2023). Comprehensively, these research gaps should be included in order to formulate effective policies, foster safe fitness habits, and research academically in the Indian setting.

Summary of Literature Review

To conclude, the available literature could shed a lot of light on the worldwide trends of using anabolic and peptides, especially with young fitness enthusiasts. The major themes are rising prevalence, powerful impact of social media, a variety of motivational factors, and high health risks. Nevertheless, a critical research gap is observed in the studies that concentrate on the context of Indians, particularly the generation Z.

The research aims to fill this gap by summarising the existing information and giving a specialized discussion on the emergence of performance-enhancing substance use in the developing culture of fitness in India. In so doing, it seeks to add to academic knowledge as well as practical awareness of this emerging public health issue.

V. CONCLUSION

This paper has discussed the increased popularity of peptide and anabolic-agent use in the Generation Z fitness subculture of India, which has shown crucial concerns regarding its prevalence, motivation, and health risks. Through the analysis of the current literature, it can be seen that, even though the usage of performance enhancing substances has been well-publicized the world over, the same trend is becoming evident among urban Indian fitness settings. Social media platform influences including instagram and YouTube can contribute greatly to body image ideals and stimulate physical change at high speed.

The results also indicate that issues such as aesthetic desires, performance enhancement, and social validation are complex motivations to use. Non-medical use of these substances is however dangerous to physical and psychological health with very severe cases that are often accompanied by lack of awareness and medical oversight.

Notably, the investigation reveals a definite gap in research that is India-specific, especially regarding Generation Z. The gap is a necessary component of the creation of specific strategies aimed at addressing the population concerning the promotion of safe fitness behavior. All in all, the paper highlights the necessity of increased education, regulation and research to address the possible evils of the newly emerging trend.

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