
A STUDY ON THE USAGE OF STEROIDS AMONG YOUNGSTERS IN GYM IN PUDUKOTTAI DISTRICT

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CHAPTER I

INTRODUCTION

1.1 Overview of Anabolic Steroids

Anabolic steroids, also referred to as anabolic-androgenic steroids (AAS), are synthetic substances designed to mimic the effects of the naturally occurring male hormone, testosterone. These substances have two primary functions: anabolic, which refers to their muscle-building properties, and androgenic, which refers to their promotion of male characteristics such as deep voice and facial hair growth. Although originally developed in the 1930s for medical purposes, anabolic steroids have become widely known for their use in enhancing athletic performance and promoting physical appearance, particularly in bodybuilding.¹

Steroids were first synthesized to treat conditions such as muscle-wasting diseases and hormone deficiencies. Over time, they became popular among athletes and bodybuilders due to their ability to significantly increase muscle mass, strength, and endurance. However, their non-medical use, especially among young athletes and fitness enthusiasts, has raised considerable concerns over their safety and the long-term health risks associated with misuse.²

The use of anabolic steroids in sports, especially by competitive athletes, has been highly controversial. While steroids can enhance performance by increasing muscle size and strength, they are also associated with a range of harmful side effects. These include liver damage, cardiovascular diseases, hormonal imbalances, mood swings, and even

¹Pope, H. G., & Brower, K. J. (2000). Anabolic-androgenic steroids. *The New England Journal of Medicine*, 343(5), 307-315.

²Bhasin, S., Storer, T. W., & Berman, N. (1996). The effects of supraphysiologic doses of testosterone on muscle size and strength in normal men. *The New England Journal of Medicine*, 335(1), 1-7.

psychological issues such as aggression and depression. In extreme cases, prolonged steroid abuse can lead to irreversible damage to organs and systems in the body. The illegal distribution of anabolic steroids has become a growing concern in many countries, with various regulations put in place to prevent non-medical use.

Anabolic steroids can be broadly categorized into two types: oral steroids and injectable steroids. Oral steroids, such as methandrostenolone (Dianabol) and oxandrolone (Anavar), are taken in pill or liquid form and absorbed through the digestive system. While they are convenient and easy to use, they often cause liver toxicity due to the first-pass metabolism, where they are processed by the liver before entering the bloodstream. On the other hand, injectable steroids, such as testosterone enanthate and nandrolone decanoate, are administered through intramuscular injections and are absorbed directly into the bloodstream, bypassing the liver. Injectable steroids tend to be more potent and have a longer-lasting effect, although they still carry significant risks, especially if not administered properly.³

The physiological mechanism of action of anabolic steroids involves their binding to androgen receptors on the muscle cells, which stimulates protein synthesis and promotes muscle growth. Additionally, these steroids improve nitrogen retention in muscles, creating an anabolic environment that favors muscle repair and growth. They also inhibit the catabolic effects of cortisol, a stress hormone that can break down muscle tissue, thus helping the body maintain and build muscle mass. Despite these benefits, the use of anabolic steroids often leads to undesirable side effects, such as increased aggression, acne, and changes in reproductive function, particularly in women.⁴

Despite their potential for muscle enhancement, the misuse of anabolic steroids, particularly by young people and athletes seeking to improve physical performance quickly, can be dangerous. The drive for a “perfect” body and the influence of social media and bodybuilding culture has led many individuals to turn to steroids in an attempt to achieve faster results. However, it is crucial to recognize the health risks involved in steroid abuse, and education is key in reducing their misuse.⁵

³ Lupori, M., & Koulmann, N. (2019). The misuse of anabolic steroids in sports and bodybuilding. *Sports Medicine*, 49(9), 1321-1336.

⁴ Hervey, M. A., & Pidgeon, M. (2021). Anabolic steroids and their physiological effects. *Endocrinology Review*, 42(8), 1297-1310.

⁵ Barnett, A. (2018). The use of anabolic steroids among athletes. *Sports Science Review*, 17(4), 45-60.

1.2 AIM OF THE RESEARCH PROJECT:

This research project aims to examine the usage of steroids among youngsters in gyms, addressing the critical issues that affect their physical health, mental well-being, and long-term fitness sustainability. The growing fitness culture in India, influenced by social media trends, peer pressure, and unregulated gym practices, has contributed to an increasing number of young individuals resorting to anabolic steroids and performance-enhancing drugs (PEDs). While these substances promise rapid muscle gain and improved athletic performance, they pose significant health risks, including cardiovascular diseases, hormonal imbalances, psychological disturbances, and dependency. This study seeks to explore the factors driving steroid consumption, assess the awareness levels among young gym-goers regarding its risks, and evaluate the role of fitness influencers, gym trainers, and supplement markets in promoting or discouraging their use. Key areas of focus will include the accessibility of steroids, gaps in legal enforcement, the influence of media portrayals of body image, and the availability of guidance from healthcare professionals on safe fitness practices.

Furthermore, the project aims to identify best practices from regulatory models in other countries, providing recommendations tailored to the Indian fitness landscape. By highlighting the challenges posed by steroid abuse and advocating for greater awareness, policy reforms, and responsible fitness education, the research intends to contribute to safer fitness environments and more informed decision-making among young gym-goers. Ultimately, the project aspires to enhance the overall health and well-being of India's youth by promoting drug-free fitness alternatives, reinforcing ethical training practices, and fostering a culture of informed and responsible bodybuilding. This research not only seeks to address the growing public health concern of steroid misuse but also underscores the importance of sustainable, safe, and ethical fitness habits for a healthier generation.

1.3 RELEVANCE OF THE RESEARCH:

The research on the usage of steroids among youngsters in gyms is highly relevant, particularly in the context of the growing fitness culture and body image concerns in India. With an increasing number of young individuals engaging in strength training and bodybuilding, the misuse of anabolic steroids and other performance-enhancing drugs (PEDs) has become a major public health issue. While these substances promise rapid muscle growth and improved athletic performance, they pose severe health risks, including cardiovascular

diseases, hormonal imbalances, liver damage, psychiatric disorders, and dependency. This research is crucial in understanding the motivations, awareness levels, and risk perceptions of young gym-goers regarding steroid use. The widespread influence of social media, peer pressure, and unregulated fitness advice from gym trainers contributes significantly to the rising trend of steroid consumption. Furthermore, the lack of stringent regulations and weak enforcement of existing drug control laws make it easier for youngsters to access and misuse these substances without medical supervision.

Beyond physical health, this study also examines the psychological and social dimensions of steroid abuse, including body image dissatisfaction, performance anxiety, and mental health disorders such as aggression and depression. It further investigates the role of gym culture, supplement markets, and digital fitness influencers in shaping young people's attitudes toward steroids. Additionally, research in this area is necessary to evaluate the effectiveness of current policies and legal measures in controlling the distribution and use of steroids. By comparing regulatory frameworks from other countries and assessing the role of fitness centers, medical professionals, and policymakers, this study aims to highlight the need for stronger public awareness campaigns, preventive interventions, and stricter enforcement mechanisms. Ultimately, this research is not just an academic pursuit; it seeks to inform health experts, gym administrators, educators, and policymakers about the urgent need to curb steroid abuse among young individuals. By promoting awareness, regulation, and responsible fitness practices, we can safeguard the health of India's youth while fostering a safer and more ethical fitness environment.

1.4 RESEARCH PROBLEM:

The increasing prevalence of anabolic steroid use among young gym-goers has become a major public health concern, particularly in India, where fitness culture and bodybuilding trends are rapidly growing. Many young individuals resort to steroids to enhance muscle mass, improve physical appearance, or boost athletic performance, often without adequate knowledge of the severe health risks and legal implications associated with their use. Despite existing laws regulating the sale and consumption of performance-enhancing drugs, enforcement remains weak, leading to easy accessibility and misuse. Moreover, the role of gym trainers, social media, peer influence, and unregulated supplement markets contributes significantly to the rising trend. A critical gap exists in awareness, policy effectiveness, and

enforcement mechanisms to curb steroid abuse among youth. Additionally, limited research has been conducted on the psychological, social, and medical consequences of steroid use, including long-term health effects, dependence, and ethical concerns in sports and fitness. This research seeks to explore the factors driving steroid usage, the level of awareness among young gym-goers, gaps in regulatory enforcement, and potential intervention strategies to mitigate this growing issue. By analyzing comparative models from other countries and evaluating the role of healthcare professionals, fitness industry stakeholders, and policymakers, this study aims to provide recommendations for effective policies, education programs, and health interventions to address steroid abuse in India's fitness community.

1.5 RESEARCH OBJECTIVES:

- To analyze the prevalence and demographic characteristics of steroid users among young gym-goers
- To examine the motivations behind steroid use among young gym-goers
- To assess the awareness and knowledge levels of young gym users regarding the health risks and legal implications of steroid consumption
- To explore the psychological and physiological effects of steroid use on young gym-goers
- To evaluate the role of gym trainers, peers, and social media in influencing steroid consumption among youngsters

1.6 RESEARCH QUESTIONS:

1. What are the primary motivations behind the use of anabolic steroids among young gym-goers?
2. What is the level of awareness among young gym users regarding the legal and health risks associated with steroid use?
3. How effective are existing policies and preventive measures in reducing the use of anabolic steroids among young fitness enthusiasts?

1.7 RESEARCH HYPOTHESIS:

The increasing prevalence of anabolic steroid use among gym-goers, particularly among young males, is hypothesized to be influenced by a combination of cultural factors, peer pressure, and a desire for rapid physical results. This demographic often perceives muscle gain and enhanced physical performance as vital to achieving their fitness goals; however, the ethical implications and health risks associated with steroid use are frequently overshadowed by the aspiration for an idealized physique. It is further posited that while there exists an awareness of the dangers and legal ramifications of steroid use, the allure of quick results and societal pressures may compel individuals to engage in such practices, potentially contributing to a culture of acceptance and normalization within fitness communities. Thus, understanding the factors that drive this behaviour is essential in promoting healthier alternatives and fostering a gym culture that prioritizes long-term wellness over short-term gains.

1.8 LITERATURE REVIEW:

"Why Are My Biceps So Small?' The Boys and Young Men Turning to Steroids"

Authors: Amelia Hill

Summary: This article explores the increasing trend of adolescent boys and young men using steroids and performance-enhancing drugs to alter their physical appearance. Influenced by social media and cultural pressures, these individuals often face significant mental and physical health risks.

"Prevalence and Risk Factors Associated with Anabolic-Androgenic Steroid Use: A Cross-Sectional Study Among Gym Users in Riyadh, Saudi Arabia"

Authors: Fares F. Al-Harbi, Mohammed A. Alshammari, and Khalid S. Alenzi

Summary: This study highlighted a high lifetime prevalence of AAS use among male gym members in Riyadh. It identified modifiable risk factors and emphasized the need for public health interventions to mitigate potential negative implications of steroid use.

"Health Threat Posed by the Hidden Epidemic of Anabolic Steroid Use"

Authors: Harrison G. Pope Jr., Gen Kanayama, and Shalender Bhasin

Summary: This article discusses the rising trend of anabolic steroid use among non-athlete young men aiming to enhance their physical appearance. It highlights the associated health risks and the need for increased awareness and intervention strategies.

1.9 RESEARCH METHODOLOGY:

This study basically follows doctrinal research keeping in view the objectives, scope of the study. Since the present study was intended to a study on the usage of steroids among youngsters in gym in Pudukkottai district. The researcher has also adopted non doctrinal method of study. The researcher has opted questionnaire method to collect primary source of data from the respondents.

DATA COLLECTION METHOD

There are two types of data collection methods: Primary and secondary data collection method. For this research, the researcher has used both methods to collect the data. Primary data was collected with the help of Google form which collected the information from the audience to a study on the usage of steroids among youngsters in gym. Secondary data were collected through various books, Indian and foreign journals, research articles, news weeklies periodicals, committee reports, law commissions report and various websites on the subject for the purpose of collecting literature and data for the study and analysis a study on the usage of steroids among youngsters in gym.

SAMPLE SIZE

The researcher has circulated the questionnaire for the survey to the study on the usage of steroids among youngsters in gym. The respondents were of all age groups and inclusive of male and female. A total of 110 responses were collected by the researcher with the help of questionnaire.

1.10 SOURCE OF THE STUDY:

Based upon the concept and nature of the research, the researcher has adopted the pure research that is, doctrinal research. Researcher has collected both primary and secondary

sources of data. Primary sources of data consist of legislations, acts, rules, conventions, etc. Secondary sources consist of newspapers, articles, journals, commentaries, etc. This research includes data information which is exclusively taken from websites authorized by the Government of India. The major source of the data is the books purely because of the nature of the study.

1.11 Chapterisation

The Study has been divided into the following chapters:

Chapter 1: Introduction

Chapter 2: Historical Background

Chapter 3: Legal frameworks protecting healthcare workers in India

Chapter 4: Comparative analysis with other countries

Chapter 5: Judicial Interpretation

Chapter 6: Data Analysis

Chapter 7: Conclusion and Suggestions

CHAPTER – II

HISTORY AND EVOLUTION OF ANABOLIC STEROIDS

1. Early Discovery of Testosterone (19th Century) ⁶

In the 19th century, scientists began exploring male hormones. The isolation of testosterone, the primary male sex hormone, was a breakthrough in understanding androgenic (male characteristics) properties, including muscle growth, sexual function, and strength.⁷ In 1935, British scientists at the University of Edinburgh, led by Charles Edouard Brown-Séquard, isolated testosterone from bull testes and tested it on themselves, claiming rejuvenating

⁶Charles Edouard Brown-Séquard, *Experiments on the Effects of Extracts of Testicular Juice on Aging*, (London: The Lancet, 1889).

⁷ K. D. Velle, 'The Discovery of Testosterone: Historical Aspects,' *The Journal of Endocrinology*, vol. 45, no. 1 (1950): 1-8.

effects. Brown-Séquard's work, though controversial, is considered foundational in the understanding of hormones and their influence on the body. The first synthetic form of testosterone was created in 1935 by German chemists. This marked the beginning of a new era in hormone-based medicine. These synthetic forms of testosterone could be used for therapeutic purposes, such as treating low testosterone levels in men and conditions like hypogonadism.⁸ In the 1940s and 1950s, researchers sought to develop anabolic steroids—a group of compounds that would maximize the muscle-building (anabolic) effects of testosterone while minimizing the masculinizing (androgenic) side effects. The key development came with the creation of methandrostenolone (Dianabol) in 1958 by Dr. John Ziegler and a team of scientists at Upjohn Company in the U.S.⁹ Dianabol quickly became popular among athletes and bodybuilders for its ability to promote rapid muscle growth. By the 1960s and 1970s, the use of anabolic steroids spread through bodybuilding and other sports. Bodybuilders like Arnold Schwarzenegger openly admitted to using anabolic steroids, and they became part of the formula for competitive bodybuilding success. The Mr. Olympia competition gained prominence during this period, and steroid use became synonymous with elite bodybuilding.¹⁰ Steroids provided athletes with a powerful means of improving strength and muscle mass, leading to increased performance in strength-based sports.

In the 1980s, the public awareness of health risks related to steroid use, including liver damage, cardiovascular issues, and psychiatric effects, grew. This led to increased governmental regulation. In 1988, anabolic steroids were classified as controlled substances in the United States under the Anabolic Steroid Control Act, making them illegal to possess or distribute without a prescription.¹¹ The World Anti-Doping Agency (WADA), established in 1999, began enforcing stricter regulations regarding performance-enhancing drugs (PEDs) in sports, leading to increased testing for anabolic steroids. Today, anabolic steroids remain classified as controlled substances in many countries. Despite the risks, they continue to be used both legally for medical purposes (e.g., testosterone replacement therapy) and illicitly by bodybuilders, athletes, and others seeking to enhance physical performance and appearance.¹² Anti-doping regulations, enforced by organizations like WADA and national anti-doping

⁸ John Ziegler, 'Dianabol and the Development of Anabolic Steroids,' *Journal of Sports Medicine*, vol. 12, no. 3 (1965): 201-214.

⁹ Todd, Terry, 'Anabolic Steroids: The Gremlins of Sport,' *Journal of Sport History*, vol. 14, no. 1 (1987): 87-107.

¹⁰ Yesalis, Charles E., *Anabolic Steroids in Sport and Exercise*, 2nd ed. (Champaign, IL: Human Kinetics, 2000).

¹¹ World Anti-Doping Agency, *Historical Developments in Anti-Doping Regulation*, WADA Reports, 1999.

¹² Hoffman, Jay R., *Testosterone: Biochemistry, Health, and Enhancement* (New York: Routledge, 2005).

agencies, continue to be a major part of sports governance, testing for steroid use in competitions. The use of anabolic steroids remains controversial due to ongoing concerns about health and fairness in sports. Yet, many athletes and individuals still seek them out in search of physical enhancement.

Origin and Early Uses

Development of Anabolic Steroids: The Precursor to Bodybuilding Use.¹³ The development of anabolic steroids can be traced back to the 1930s with the isolation of testosterone, the primary male sex hormone responsible for muscle growth, bone density, and the development of male characteristics. This discovery paved the way for the creation of synthetic derivatives that would have similar effects but with less pronounced masculinizing (androgenic) side effects. Testosterone was first isolated and synthesized by chemists at the University of Edinburgh. While testosterone was initially used for medical purposes, including the treatment of low testosterone levels (hypogonadism), it had the potential for far more widespread applications, including muscle enhancement. The early research on testosterone by scientists such as Charles Edouard Brown-Séquard in the 19th century also contributed to the foundation of modern hormone replacement therapy and later anabolic steroid development.

The Creation of Synthetic Anabolic Steroids (1940s-1950s)¹⁴ As scientists learned more about the physiological effects of testosterone, the need arose to create synthetic versions of the hormone that could maximize the anabolic (muscle-building) effects while minimizing its androgenic (masculinizing) side effects. This led to the development of anabolic steroids. Methandrostenolone (Dianabol) was synthesized by Dr. John Ziegler and the Upjohn Company. Dianabol was the first widely used anabolic steroid in the bodybuilding world, and it rapidly gained popularity due to its ability to promote rapid muscle growth, strength, and endurance. Ziegler's collaboration with the U.S. weightlifting team, particularly during the 1954 World Weightlifting Championships, helped introduce anabolic steroids to the American bodybuilding scene.

¹³ Pope, Harrison G., and David L. Katz, *The Steroid Epidemic in Sports and Society* (New York: Oxford University Press, 2010).

¹⁴ National Institute on Drug Abuse (NIDA), *Anabolic Steroid Abuse and Medical Risks*, 2022.

Introduction of Steroids in Bodybuilding Circles (1960s)¹⁵ The early 1960s saw the introduction of anabolic steroids into the bodybuilding community. Bodybuilders, seeking ways to increase muscle mass and strength, adopted these substances in order to enhance their training and competition results. The rise of professional bodybuilding and muscle culture coincided with the increased use of steroids in this niche. The Mr. Olympia competition, the most prestigious bodybuilding contest, featured competitors who were using steroids to achieve the extreme muscularity required to win. As bodybuilding became more popular in the U.S., the use of steroids spread among competitors who sought to build larger and more defined muscles. Arnold Schwarzenegger, one of the most famous bodybuilders in history, openly admitted to using anabolic steroids during his competitive years, bringing further attention to steroid use in bodybuilding. His success in winning Mr. Olympia multiple times helped solidify the connection between steroid use and achieving high levels of muscularity.

The Role of Anabolic Steroids in Accelerating Muscle Growth¹⁶ In bodybuilding, achieving maximum muscle growth and strength is essential for success. Anabolic steroids offered a means of enhancing performance that went beyond what could be achieved through natural training methods alone. The primary effects of anabolic steroids in bodybuilding include, Anabolic steroids promote protein synthesis, leading to muscle hypertrophy (growth) when combined with resistance training. This allows bodybuilders to build significantly larger muscles than would be possible naturally. Steroids reduce muscle damage and inflammation, allowing athletes and bodybuilders to train more frequently and at higher intensities without prolonged recovery times. With increased muscle mass and improved recovery, athletes experience enhanced strength, allowing them to lift heavier weights and perform better in their workouts.

Bodybuilding and Steroid Use in the 1970s¹⁷ By the 1970s, anabolic steroids were well-established in the bodybuilding world. They were integral to the training regimens of top bodybuilders. The influence of professional bodybuilders like Arnold Schwarzenegger, Franco Columbu, and others made steroid use in bodybuilding an open secret, even though it was still largely unregulated and not widely discussed outside of elite circles. The Mr.

¹⁵ Schwarzenegger, Arnold, *The New Encyclopedia of Modern Bodybuilding* (New York: Simon & Schuster, 1998).

¹⁶ Fair, John D., *Mr. America: The Tragic History of a Bodybuilding Icon* (University of Texas Press, 2015).

¹⁷ IFBB, *Regulations and Policies on Performance-Enhancing Drugs*, International Federation of Bodybuilding and Fitness, 2001

Olympia competition, with its focus on extreme muscularity, continued to set the standard for steroid use in bodybuilding, with top competitors using steroids to gain an edge over their rivals. Initial Reactions and Perceptions of Steroid Use during the early years of steroid use in bodybuilding, the potential risks associated with these drugs were not well understood. The focus was mainly on their performance-enhancing benefits rather than their long-term health consequences. At the time, anabolic steroids were often seen as a necessary tool for elite athletes and bodybuilders to stay competitive. Bodybuilding culture viewed steroids as a legitimate way to enhance the body's natural capabilities, and athletes who did not use them were at a clear disadvantage in competitions. There were few regulations governing the use of anabolic steroids, and their use was not seen as controversial in the early years, as bodybuilders focused primarily on achieving larger physiques and enhanced performance.

Increasing Scrutiny and Regulation (1980s-Present)¹⁸ by the 1980s, the widespread use of anabolic steroids in bodybuilding and other sports began to attract attention from health professionals and regulatory bodies. There was growing concern about the side effects of steroid use, including liver damage, cardiovascular problems, hormonal imbalances, and psychiatric effects such as aggression and depression. In the 1980s, the Anabolic Steroid Control Act was passed in the U.S. to regulate the distribution and use of anabolic steroids. This made the non-medical use of steroids illegal and began the process of reducing their widespread use in sports and bodybuilding. Despite the bans and regulations, anabolic steroid use continued in bodybuilding and other performance-enhancing circles, with some athletes turning to black market sources to obtain steroids.

Types of Anabolic Steroids: Oral vs. Injectable

Anabolic steroids can be classified into two main types based on their mode of administration: **oral** and **injectable**. Both types share similar mechanisms of action but differ in how they are metabolized and how quickly they take effect.

Oral Steroids

Oral steroids are taken in pill or liquid form and are absorbed through the digestive system. These steroids are often preferred for their convenience and ease of use. However, they

¹⁸ Verroken, Michele, 'Drug Use and Doping Control in Sport,' Journal of Sports Sciences, vol. 18, no. 3 (2000): 245-250.

undergo a process called **first-pass metabolism**, which means they are metabolized by the liver before entering the bloodstream. This can lead to increased strain on the liver and a higher risk of liver damage when taken in excess or for extended periods.

Examples of Oral Steroids:

1. **Methandrostenolone (Dianabol)** – Known for its rapid muscle-building effects and strength increase. It is one of the most widely used oral steroids.
2. **Oxandrolone (Anavar)** – Often used for fat loss and muscle preservation, it is considered milder and safer compared to other steroids.
3. **Stanozolol (Winstrol)** – Commonly used in both oral and injectable forms. It helps to increase lean muscle mass and is known for improving strength and endurance.
4. **Clenbuterol** – While not a steroid, it's commonly used in the same circles for its fat-burning properties.
5. **Oxymetholone (Anadrol)** – Known for dramatic gains in muscle mass, it is highly effective but also has significant side effects.
6. **Fluoxymesterone (Halotestin)** – Known for its ability to increase strength and aggression, it is often used by athletes seeking short-term strength boosts.
7. **Methyltestosterone** – Often used for increasing muscle mass and strength, though it carries significant liver toxicity risks.
8. **Trenbolone acetate (oral)** – Used to increase muscle mass and fat burning, although it can be quite harsh on the body.
9. **Nandrolone (Deca-Durabolin, oral)** – Often used for treating muscle-wasting conditions but can be used to improve muscle mass when taken orally.
10. **Androstenedione** – Precursor to testosterone, used by bodybuilders to boost testosterone levels, though its effectiveness and safety are debated.

Injectable Steroids

Injectable steroids are administered through intramuscular injection. These steroids are metabolized more efficiently by the body compared to their oral counterparts, as they bypass the liver and enter the bloodstream directly. They tend to have longer-lasting effects and are often preferred for longer-term cycles.

Examples of Injectable Steroids:

1. **Testosterone enanthate** – A long-acting form of testosterone that is commonly used for muscle building and hormone replacement therapy.
2. **Testosterone cypionate** – Similar to enanthate, this injectable steroid is popular for increasing testosterone levels and promoting muscle mass.
3. **Nandrolone decanoate (Deca-Durabolin)** – Known for its ability to improve strength and promote muscle growth, it is often used in bodybuilding.
4. **Boldenone undecylenate (Equipoise)** – A steroid with mild anabolic properties, used to enhance muscle mass and strength.
5. **Trenbolone acetate (injectable)** – Extremely potent, this steroid is known for rapid muscle gains and fat loss.
6. **Stanozolol (Winstrol injectable)** – The injectable form of Winstrol, known for its ability to improve muscle definition and strength.
7. **Masteron (Drostanolone propionate)** – Often used to enhance muscle hardness and definition, especially during cutting cycles.
8. **Methenolone enanthate (Primobolan)** – Known for its mild nature, it is used to maintain muscle mass during cutting cycles.
9. **Turinabol (oral & injectable)** – A milder steroid compared to others but effective for gradual muscle mass gains without excess water retention.
10. **Sustanon 250** – A blend of four different types of testosterone esters, it is used for

increasing muscle mass and overall athletic performance.

Military and Athletic Use of Anabolic Steroids

While anabolic steroids were originally developed for medical use, their ability to improve muscle mass, strength, and endurance did not go unnoticed in military and athletic communities. This led to their adoption for performance enhancement, starting in the 1950s. The first widespread use of anabolic steroids in sports occurred in the Soviet Union in the 1950s, where athletes, particularly weightlifters, were given steroids to help them improve strength and muscle mass to dominate international competitions.¹⁹ As the use of anabolic steroids spread, they were eventually used by athletes in the Olympics. This led to widespread concerns about fairness and health, prompting organizations like the International Olympic Committee (IOC) to start testing athletes for steroids in the 1960s.²⁰ The use of anabolic steroids by Soviet athletes during the Cold War marked a turning point in competitive sports, setting a precedent for performance-enhancing drug use that would later affect the entire athletic world.²¹ By the 1960s, the bodybuilding community had also taken notice of the powerful effects of anabolic steroids on muscle growth and strength. This led to the widespread use of steroids among bodybuilders seeking to enhance their muscularity and physique for competitions. Dianabol became especially popular in the bodybuilding community because it provided rapid muscle gains and strength without the severe androgenic effects of testosterone.²² Legendary bodybuilders, including Arnold Schwarzenegger, were open about their use of anabolic steroids, which further normalized steroid use in bodybuilding culture.²³ The bodybuilding culture in the 1960s and 1970s embraced anabolic steroids as a key element in achieving extreme muscularity. Schwarzenegger's success in the Mr. Olympia competitions was attributed, in part, to his use of anabolic steroids.²⁴ While anabolic steroids are no longer as widely prescribed for conditions such as muscle wasting or low testosterone as they once were, they are still used in specific medical contexts. Over time, the side effects and long-term risks of anabolic steroids, including liver damage, cardiovascular problems, and hormonal imbalances, have made their

¹⁹ Charles Kochakian, "Testosterone and Anabolic Steroids: A Historical Perspective," *Journal of Endocrinology*, vol. 25, no. 3, 1935, pp. 215-230.

²⁰ Julius Vida, "Androgens and Anabolic Agents: Chemistry and Pharmacology," Academic Press, 1969.

²¹ John Fair, "Muscle, Smoke, and Mirrors: The Steroid Era of Bodybuilding," ECW Press, 2009.

²² Richard Holt and Natalia Jastrzebska, "The Use of Anabolic Steroids in the Soviet Union," *Sports Medicine*, vol. 42, no. 4, 2010, pp. 275-290.

²³ Arnold Schwarzenegger, "The New Encyclopedia of Modern Bodybuilding," Simon & Schuster, 1998.

²⁴ Randy Roach, "Muscle, Smoke, and Mirrors: The Cultural Impact of Steroid Use in Bodybuilding," ECW Press, 2011.

medical use more restricted.²⁵ Despite their medical benefits, anabolic steroids are closely regulated by medical authorities such as the FDA due to their potential for misuse and abuse.²⁶ Due to concerns over the widespread abuse of anabolic steroids, especially in sports and bodybuilding, their use has been heavily regulated. In the 1980s, the Anabolic Steroid Control Act was passed in the United States, classifying anabolic steroids as controlled substances, which made their non-medical use illegal.²⁷ The establishment of WADA in 1999 provided a global framework for testing athletes for performance-enhancing drugs, including anabolic steroids.²⁸ The IOC banned the use of anabolic steroids in 1967 and continues to enforce strict anti-doping regulations, requiring testing for banned substances at the Olympic Games.²⁹ The implementation of global anti-doping organizations has significantly curtailed the use of anabolic steroids in professional sports, as athletes face penalties such as suspensions, fines, and stripping of titles for failing drug tests.³⁰

Youngsters today are increasingly turning to anabolic steroids to enhance their physique and athletic performance. The rising trend of steroid use in gyms is influenced by various psychological, social, and environmental factors. Below are some key reasons why young individuals engage in steroid use. The increasing use of anabolic-androgenic steroids (AAS) among young gym-goers is largely driven by their strong desire for muscle growth and strength. In today's fitness-driven culture, having a muscular physique is often associated with attractiveness, confidence, and dominance. As a result, many youngsters resort to steroids as a shortcut to achieving rapid muscle gains. One of the primary reasons why young individuals turn to steroids is the accelerated muscle development they offer. Unlike natural bodybuilding, which requires consistent training, proper nutrition, and years of effort, steroids enhance protein synthesis, leading to quicker muscle hypertrophy.³¹ Many gym-goers, impatient with slow progress, feel that steroids provide a competitive advantage by drastically shortening the time needed to build muscle. Studies indicate that steroid users can gain 2-5 kg of muscle mass within 10 weeks, whereas natural trainees may take years to

²⁵ Food and Drug Administration, "Anabolic Steroid Control Act of 1990," U.S. Department of Health and Human Services, 1990.

²⁶ U.S. National Library of Medicine, "Testosterone Therapy: Benefits and Risks," MedlinePlus, 2020.

²⁷ U.S. Congress, "Anabolic Steroid Control Act of 1990," Public Law No. 101-647, 1990.

²⁸ World Anti-Doping Agency, "Code Compliance and Enforcement," WADA Annual Report, 2020.

²⁹ International Olympic Committee, "Anti-Doping Rules and Regulations," IOC Handbook, 2021.

³⁰ Paul Dimeo, "Doping in Elite Sports: The Politics and Science of Drug Testing," Routledge, 2007.

³¹ Pope, H. G., Kanayama, G., & Hudson, J. I. (2019). *Anabolic-Androgenic Steroids and Muscle Growth: Mechanisms and Misuse in Fitness Culture*. *Journal of Adolescent Health*, 64(5), 597-605.

achieve similar growth.³² This rapid transformation motivates young individuals, particularly those who want visible results in a short span, to experiment with steroids. Bodybuilding culture and social media portrayals of “ideal” physiques have significantly increased pressure on youngsters to develop lean, muscular bodies. Platforms like Instagram and TikTok frequently showcase influencers, fitness models, and celebrities with exceptionally muscular and well-defined physiques. However, many of these individuals do not disclose their steroid use, leading young followers to believe such transformations are purely natural.³³ This unrealistic expectation creates frustration among young gym-goers, who may feel inadequate despite following strict workout routines and diets. To achieve similar physiques, they often turn to steroids without fully understanding the consequences. Many athletes and gym enthusiasts desire greater strength and endurance to outperform others. Steroids increase red blood cell production and protein metabolism, which enhances muscular strength, recovery rate, and overall physical performance.³⁴ This benefit makes steroids particularly attractive to Young athletes competing in sports like weightlifting, wrestling, and bodybuilding. Gym-goers who want to lift heavier weights and surpass their peers. Individuals who seek recognition and admiration for their physique and strength. The pressure to perform better often leads young individuals to steroids, as they believe that without them, they cannot compete at the same level as others using performance-enhancing drugs.

The desire for muscle growth is not just about physical appearance; it is also linked to self-confidence and mental well-being. Many young men associate muscularity with masculinity, dominance, and attractiveness. Those who feel insecure about their bodies may turn to steroids to boost their self-esteem.³⁵ Additionally, some individuals suffer from muscle dysmorphia (also known as “bigorexia”), a psychological condition where they perceive themselves as not muscular enough, regardless of their actual size. This obsession with muscle growth often leads to excessive training, steroid abuse, and long-term health risks.³⁶ While steroids may offer short-term benefits in muscle growth and strength, they come with severe health risks, including, Liver damage and cardiovascular diseases. Testosterone

³² Bhasin, S., Storer, T. W., & Berman, N. (2001). *The Effects of Supraphysiologic Doses of Testosterone on Muscle Size and Strength in Normal Men*. New England Journal of Medicine, 335(1), 1-7.

³³ Griffiths, S., & Murray, S. B. (2018). *The Influence of Social Media on Body Image and Steroid Use Among Young Adults*. Psychology of Addictive Behaviors, 32(4), 456-470.

³⁴ Hoffman, J. R., & Ratamess, N. A. (2006). *Performance-Enhancing Substances in Sports and Exercise*. Sports Medicine, 36(2), 91-122

³⁵ Tod, D., Edwards, C., & Hall, G. (2012). *Muscularity and Masculinity: A Psychological Perspective on Steroid Use in Young Men*. International Journal of Men's Health, 11(3), 189-207.

³⁶ Olivardia, R., Pope, H. G., & Hudson, J. I. (2000). *Muscle Dysmorphia in Male Weightlifters: A Case-Control Study*. American Journal of Psychiatry, 157(8), 1291-1296.

suppression, leading to infertility and gynecomastia. Psychological effects, such as aggression, mood swings, and addiction.³⁷ Despite these risks, many youngsters ignore warnings due to their strong desire for aesthetics and performance enhancement.

Performance Enhancement in Competitive Sports

Performance enhancement in competitive sports has been a longstanding issue, with athletes constantly seeking ways to improve their strength, endurance, and overall performance. While training, nutrition, and technology have contributed significantly to athletic progress, many athletes turn to performance-enhancing substances, including anabolic steroids, stimulants, human growth hormone (HGH), and blood doping, to gain a competitive edge. The use of these substances is highly controversial due to ethical concerns, health risks, and violations of fair play. Competitive sports place immense pressure on athletes to perform at their peak. The desire to win, secure sponsorships, and gain recognition pushes many athletes to explore performance-enhancing drugs (PEDs). According to a study by Pope et al. (2013), the use of anabolic steroids has increased in elite sports due to the high demands of performance expectations.³⁸ Many athletes believe that using these substances can help them recover faster, increase muscle mass, and improve endurance, which provides them an edge over competitors who rely solely on natural training methods. Several high-profile cases have demonstrated the lengths to which athletes go to enhance performance. The Lance Armstrong doping scandal and the Russian doping scandal in the Olympics have shown how deeply PED use is embedded in elite sports.³⁹

There are several categories of PEDs used by athletes across various sports, Anabolic-Androgenic Steroids (AAS): Used to increase muscle mass and strength. Commonly used in bodybuilding, weightlifting, and sprinting. Erythropoietin (EPO): Boosts red blood cell production, improving endurance in cycling, marathon running, and long-distance swimming. Human Growth Hormone (HGH): Enhances muscle growth and recovery. Stimulants (Amphetamines, Ephedrine, Caffeine): Improve alertness, reaction time, and focus, commonly used in football, basketball, and combat sports. Beta-Blockers: Reduce anxiety and tremors, often used in archery, shooting, and golf. A report by World Anti-Doping

³⁷ Kanayama, G., Hudson, J. I., & Pope, H. G. (2008). *Long-Term Health Risks of Anabolic-Androgenic Steroid Use*. *Drug and Alcohol Dependence*, 98(1-2), 1-12.

³⁸ Pope, H. G., Kanayama, G., & Hudson, J. I. (2019). *The Influence of Gym Culture on Young Adults' Use of Anabolic Steroids*. *Journal of Adolescent Health*, 64(5), 597-605.

³⁹ Bahrke, M. S., Yesalis, C. E., & Wright, J. E. (2000). *Psychological and Behavioral Effects of Anabolic-Androgenic Steroids in Athletes*. *Sports Medicine*, 30(5), 375-390.

Agency (WADA, 2021) indicated that over 30% of doping cases involve anabolic steroids, highlighting their widespread use.⁴⁰

The use of PEDs violates the principles of fair competition, giving users an unfair advantage over natural athletes. The International Olympic Committee (IOC) and other sports governing bodies strictly prohibit PEDs, enforcing random drug tests to maintain integrity in sports. However, newer doping methods, such as micro-dosing and designer drugs, make detection increasingly difficult.⁴¹ Many athletes who use PEDs justify their actions by arguing that, Others are already using them, so they need PEDs to compete on an equal playing field. The rewards in professional sports—financial success, fame, and endorsements—outweigh the risks of being caught. Advances in sports medicine can mitigate potential health risks of PED use. Despite these justifications, anti-doping agencies and sports organizations continue to impose strict bans and suspensions on athletes caught using banned substances.

While PEDs may enhance performance, they also pose serious health risks. Some of the most common side effects include: Cardiovascular problems (heart attacks, high blood pressure). Liver and kidney damage due to prolonged steroid use. Hormonal imbalances, leading to conditions such as gynecomastia (breast tissue growth in men) and infertility. Psychological effects, including aggression (“roid rage”), anxiety, and depression. Addiction and dependency, especially with stimulants and steroids. A study by Kanayama et al. (2008) found that long-term steroid users are at a much higher risk of developing cardiovascular diseases and psychiatric disorders.⁴² To combat PED use, organizations such as WADA, the U.S. Anti-Doping Agency (USADA), and the International Olympic Committee (IOC) enforce strict regulations and conduct random drug tests before and after competitions. Some measures taken to reduce PED use include: Biological passports that track an athlete’s biomarkers over time. Stronger penalties, including lifetime bans for repeat offenders. Education and awareness programs to highlight the dangers of PEDs. Despite these efforts, many athletes continue to find ways to bypass drug tests, using methods like blood transfusions, designer steroids, and masking agents. This has led to an ongoing battle between

⁴⁰ Hildebrandt, T., Langenbucher, J. W., Carr, S. J., & Sanjuan, P. (2007). *Influence of Peer Networks on Steroid Use Among Young Males*. *Psychology of Addictive Behaviors*, 21(2), 231-238.

⁴¹ World Anti-Doping Agency (WADA) Report (2020). *The Role of Trainers and Coaches in Steroid Distribution*. *International Journal of Sports Science*, 15(3), 102-118.

⁴² Kanayama, G., Hudson, J. I., & Pope, H. G. (2009). *Anabolic-Androgenic Steroid Dependence: An Emerging Disorder?* *Addiction*, 104(12), 1966-1978.

athletes who dope and the agencies trying to eliminate doping from sports.⁴³

Steroid use presents serious short-term and long-term effects, impacting both physical and mental health. Short-term effects include acne, high blood pressure, water retention, and liver strain, while long-term effects involve cardiovascular diseases, liver damage, kidney dysfunction, and hormonal imbalances. These consequences can lead to heart attacks, strokes, infertility, and organ failure, making steroid abuse a significant health concern. Beyond physical harm, steroids also have a severe psychological impact. Users often experience mood swings, aggression ("roid rage"), anxiety, depression, and dependency, increasing the risk of mental health disorders and addiction. Many individuals, particularly young gym-goers, underestimate these dangers, believing that short cycles or post-cycle therapy (PCT) can reverse the damage. However, research indicates that even brief steroid use can cause irreversible disruptions to hormonal balance and brain chemistry. With the rise of social pressures and misinformation, steroid use continues to grow despite its severe consequences. Raising awareness about their short-term and long-term effects, as well as their psychological impact, is crucial to preventing abuse and promoting safer, natural fitness alternatives.

CHAPTER III

MOTIVATIONS FOR STEROID USE

The rising use of anabolic-androgenic steroids (AAS) among young gym-goers has become a significant concern in modern fitness culture. While the physical effects of steroids are widely discussed, understanding the motivations behind their use is equally important. Steroid use is not merely a matter of vanity; it is influenced by multiple social, psychological, and cultural factors that shape young individuals' perceptions of fitness and self-worth. These motivations stem from the pressure to achieve an ideal physique, enhance athletic performance, and conform to societal expectations. With the increasing emphasis on muscularity and strength, many young athletes and bodybuilders turn to steroids as a shortcut to reaching their goals faster. However, the decision to use steroids is rarely made in isolation—it is often influenced by peer groups, social media, and cultural norms that glorify extreme physiques. One of the most common reasons for steroid use among gym-goers is the desire for muscle growth and strength. Many individuals feel frustrated with their natural

⁴³ International Olympic Committee (IOC) (2022). *Advancements in Drug Testing and Detection of Performance-Enhancing Drugs*. Journal of Sports Ethics, 48(1), 100-121.

progress and resort to steroids to break through plateaus and build muscle mass more rapidly. The influence of celebrity fitness icons and social media influencers has further fueled this trend, as platforms like Instagram, TikTok, and YouTube continuously showcase unrealistic body standards. The widespread display of heavily muscled physiques—many of which are enhanced by steroids—creates unrealistic expectations for young fitness enthusiasts. As a result, they often feel pressured to match these idealized images, even if it means taking harmful substances.⁴⁴

Beyond social media, peer pressure and gym culture play a significant role in motivating young individuals to use steroids. Many gym environments, particularly in bodybuilding and powerlifting communities, promote a culture where steroid use is either normalized or encouraged. Newcomers to these spaces often observe experienced gym-goers using steroids and feel compelled to follow suit in order to compete at the same level. Some individuals also receive encouragement from trainers, coaches, or workout partners who downplay the risks of steroids while emphasizing their benefits. In such environments, steroid use is seen as a necessary step toward achieving an elite-level physique, creating a dangerous cycle of dependency. The influence of cultural and societal norms further reinforces the appeal of steroids. In many cultures, masculinity and physical dominance are closely linked to muscularity and strength. This belief system pushes young men toward performance-enhancing drugs as a means of proving their worth. Additionally, professional and amateur sports continue to struggle with steroid use, as athletes feel immense pressure to perform at higher levels. The glorification of champions and record-breaking athletes—many of whom have been accused of doping—sends mixed messages to aspiring competitors. Understanding these motivations is crucial to addressing the root causes of steroid abuse. The following sections will explore these influences in greater detail.

3.1.1 Reasons for Gym-Goers Using Steroids

Steroid use among gym-goers is driven by a variety of motivations, ranging from physical aspirations to psychological and social pressures. Many individuals start using anabolic-androgenic steroids (AAS) primarily to achieve rapid muscle growth and improve body aesthetics, as they feel that a well-defined, muscular physique enhances their attractiveness and self-image. Others, particularly athletes and competitors, turn to steroids to enhance their

⁴⁴ *The Role of Social Media in Body Image Concerns Among Young Men: A Meta-Analysis*. Clinical Psychology Review, 60, 24-43.

sports performance and gain a competitive edge in bodybuilding, powerlifting, and other strength-based sports. However, the decision to use steroids is often not made in isolation; it is heavily influenced by peer pressure and gym culture, where steroid use is sometimes normalized or even encouraged. Many young gym-goers also fall into the trap of seeking quick and visible results, feeling frustrated with their natural progress and turning to steroids as a shortcut to success.⁴⁵ Beyond these external motivations, psychological factors such as low self-esteem, body dysmorphia, and confidence issues play a significant role in steroid dependency. Some individuals struggle with muscle dysmorphia ("bigorexia"), believing they are never muscular enough, leading them to rely on steroids to maintain their ideal physique. Together, these factors create a powerful incentive for gym-goers to experiment with steroids, often without fully understanding the risks involved. The following sections will explore these reasons in greater detail, shedding light on the mindset and pressures that drive steroid use in fitness communities.

3.1.2 Muscle Gain and Body Aesthetics

The desire for muscle gain and an aesthetically appealing physique is one of the primary reasons gym-goers turn to anabolic-androgenic steroids (AAS). In modern fitness culture, a lean, muscular body is often equated with attractiveness, strength, and social status. Young individuals, particularly men, feel immense pressure to develop well-defined muscles, broad shoulders, and a low body fat percentage, leading them to explore steroids as a shortcut to achieving their ideal physique. While natural muscle-building requires years of dedicated training and strict nutrition, steroids offer rapid muscle growth, enhanced recovery, and increased strength, making them an appealing option for those who are impatient with slow progress. The promotion of hyper-muscular physiques in media and fitness circles has significantly contributed to steroid use among gym-goers. Platforms like Instagram, TikTok, and YouTube are flooded with images and videos of fitness models, bodybuilders, and influencers showcasing perfectly sculpted physiques. Many of these individuals either use steroids or manipulate their images, setting unrealistic body standards for their followers. According to research by Griffiths et al. (2018), young men who frequently engage with fitness-related social media content experience higher levels of body dissatisfaction, leading to an increased likelihood of turning to performance-enhancing drugs (PEDs). Moreover,

⁴⁵ *Muscle Dysmorphia in Male Weightlifters: A Case-Control Study*. The American Journal of Psychiatry, 157(8), 1291-1296.

many gym-goers believe that bigger muscles will improve their social status and desirability. A study by Olivardia et al. (2004) found that men who perceive muscularity as a key factor in attractiveness are more likely to experience muscle dysmorphia, a condition where individuals see themselves as too small regardless of their actual size⁴⁶. This distorted self-image drives many to seek rapid muscle hypertrophy through steroids, believing that their natural progress is insufficient.

Frustration with Natural Limits and Training Plateaus

Another major motivation behind steroid use is frustration with natural muscle-building limitations. Despite consistent training and proper nutrition, muscle growth slows down over time, and strength gains become harder to achieve. This phenomenon, known as a training plateau, discourages many gym-goers, especially those who expect constant progress. According to research by Pope et al. (2014), young men who struggle to achieve their desired muscularity naturally are more prone to using AAS as a performance enhancer. Steroids help overcome these biological limitations by increasing protein synthesis, nitrogen retention, and red blood cell production, leading to faster muscle growth and recovery. This enables users to train more frequently and with greater intensity, accelerating muscle hypertrophy beyond what is naturally possible. However, this rapid growth comes at a cost, as steroid users often experience severe withdrawal symptoms when they stop using, leading to dependence and long-term health complications.

In some gym environments, steroid use is widely accepted and even encouraged. Many individuals enter bodybuilding communities where steroids are seen as a necessary tool for achieving the “perfect” physique. According to a study by Petróczy et al. (2011), steroid use is most common among gym-goers who regularly interact with others using PEDs, suggesting that steroid use spreads through social networks and peer influence.⁴⁷ Additionally, many trainers and fellow gym members reinforce the idea that steroids are the only way to achieve a professional-level physique, pushing newcomers toward their use. Some even claim that steroids are safe if used “correctly,” downplaying their risks while highlighting their benefits. This misinformation, combined with the glorification of extreme muscularity, makes steroids an attractive option for gym-goers seeking rapid muscle growth and improved aesthetics.

⁴⁶ *Performance Enhancement with Supplements and Drugs in Elite Athletes: The Case of Tainted Supplementation*. Journal of Human Sport and Exercise, 6(2), 276-286.

⁴⁷ Petróczy, A., Naughton, D. P., Mazanov, J., Holloway, A., & Bingham, J. (2011).

3.1.3 Enhancing Sports Performance and Competitive Edge

One of the primary reasons gym-goers and athletes turn to anabolic-androgenic steroids (AAS) is the desire to enhance sports performance and gain a competitive edge. In professional and amateur sports, the pressure to outperform competitors, break records, and meet high expectations is immense. This competitive environment often pushes individuals to seek ways to improve their strength, endurance, and recovery time beyond natural limits. While strict anti-doping regulations exist in many sports, the temptation to use steroids remains strong, especially in unregulated competitions and underground bodybuilding scenes. Athletes across various sports—particularly in bodybuilding, powerlifting, weightlifting, football, and track and field—face tremendous pressure to excel. Many young competitors aspire to reach elite levels, but natural training and nutrition can only take them so far. According to a study by Yesalis et al. (2000), the primary motivation for steroid use among athletes is performance enhancement rather than aesthetic appeal⁴⁸. Steroids allow users to increase muscle strength, improve endurance, and enhance explosive power, which can provide a crucial advantage in competitive environments. Additionally, some athletes believe that without steroids, they will never be able to match the performance of their enhanced competitors. This belief is reinforced by stories of top athletes who have used performance-enhancing drugs (PEDs) to achieve record-breaking results. Research by Lippi et al. (2008) found that athletes who suspect their competitors are using steroids are more likely to justify their own use, creating a cycle of doping within certain sports⁴⁹.

Steroids work by boosting protein synthesis, increasing red blood cell production, and reducing muscle breakdown, leading to rapid gains in strength and endurance. This is particularly beneficial in sports that require explosive power and sustained physical exertion, such as:

- **Weightlifting and Powerlifting:** Steroids enable lifters to push heavier weights, recover faster, and break through strength plateaus.
- **Track and Field:** Sprinters and endurance runners benefit from improved oxygen delivery and reduced fatigue.

⁴⁸ Yesalis, C. E., Bahrke, M. S., & Wright, J. E. (2000). *Anabolic-Androgenic Steroids and Related Substances: Prevalence, Physiological Effects, and Detection*. *Sports Medicine*, 19(5), 326-340.

⁴⁹ Lippi, G., Franchini, M., & Guidi, G. C. (2008). *Doping in Competitive Sports: Biochemical and Clinical Aspects*. *Clinical Chemistry and Laboratory Medicine*, 46(4), 495-507.

- Football and Combat Sports: Faster recovery allows athletes to train harder and maintain peak physical condition throughout the season.

According to a study by Hartgens and Kuipers (2004), steroid users experience significant increases in lean body mass, muscle strength, and athletic performance compared to non-users⁵⁰. These performance-enhancing effects make steroids highly attractive to gym-goers and athletes who want to excel in their respective sports. Another key advantage of steroids is their ability to accelerate muscle recovery and reduce injury risk. High-intensity training places extreme stress on muscles, leading to microtears and inflammation. Natural recovery can take days, limiting an athlete's ability to train at peak intensity. Steroids speed up tissue repair, reduce inflammation, and allow for more frequent, high-intensity training sessions. A study by Kadi et al. (1999) found that steroid users recover from intense workouts more quickly than natural athletes, enabling them to train more consistently without overtraining-related injuries⁵¹. This rapid recovery gives athletes a clear advantage, allowing them to perform at their best during competitions while minimizing the risk of muscle strain, ligament tears, and other common sports injuries.

Despite anti-doping regulations, steroid use remains prevalent in competitive sports. High-profile cases involving Olympic athletes, professional bodybuilders, and powerlifters have demonstrated the widespread use of PEDs in elite sports. The World Anti-Doping Agency (WADA) continuously updates its banned substances list, but athletes still find ways to evade testing through masking agents and advanced drug cycles. According to a study by Laure et al. (2004), up to 15% of competitive athletes admit to using steroids at some point in their careers⁵². Many justify their use by arguing that others are doing it too, and they would be at a disadvantage if they remained natural. This mentality fuels a culture of secrecy and underground steroid use, making it difficult to eliminate PEDs from sports entirely. While steroids offer undeniable performance benefits, their use raises ethical and health concerns. Athletes who use steroids gain an unfair advantage over natural competitors, leading to debates about the integrity of sports. Furthermore, prolonged steroid use has severe long-term health effects, including cardiovascular disease, liver damage, and hormonal imbalances.

⁵⁰ Hartgens, F., & Kuipers, H. (2004). *Effects of Androgenic-Anabolic Steroids in Athletes*. Sports Medicine, 34(8), 513-554.

⁵¹ Kadi, F., Eriksson, A., Holmner, S., & Thornell, L. E. (1999). *Effects of Anabolic Steroids on the Skeletal Muscle of Strength-Trained Athletes*. Medicine and Science in Sports and Exercise, 31(11), 1528-1534.

⁵² Laure, P., Binsinger, C., & Lecerf, T. (2004). *Doping Prevalence Among Elite Athletes: A Review of Recent Studies*. International Journal of Sports Medicine, 25(4), 221-226.

Many athletes who rely on steroids struggle with dependency, withdrawal symptoms, and irreversible health complications later in life. A study by Lamberts et al. (2010) found that former steroid users often experience depression, hormonal dysfunction, and cardiovascular issues after discontinuing use, highlighting the long-term risks associated with PEDs⁵³.

Gym culture varies widely, but in many bodybuilding-focused gyms, steroid use is widely accepted or even expected. The idea that "everyone is on something" creates an environment where natural training methods are seen as ineffective. Research by Dunn et al. (2009) found that in gym environments where steroid use is prevalent, non-users often feel pressured to start using in order to "keep up" with their peers⁵⁴. Furthermore, steroid use is often downplayed in these environments. Many gym-goers believe that steroids can be used safely if taken in controlled cycles and that the risks are exaggerated. This misinformation, combined with success stories of bodybuilders who claim to use steroids responsibly, convinces many young individuals that the benefits outweigh the risks. A study by Boardley et al. (2015) found that gym-goers often rationalize steroid use by focusing on the immediate gains rather than long-term consequences⁵⁵.

Gym trainers and coaches play a significant role in shaping the fitness journeys of young gym-goers and athletes. As figures of authority and expertise, they provide guidance on workouts, nutrition, and overall fitness strategies. However, in some cases, their influence extends beyond natural training methods, as they directly or indirectly encourage the use of anabolic steroids and other performance-enhancing drugs (PEDs). For young athletes and bodybuilders who idolize their trainers and coaches, the temptation to use steroids becomes stronger when these authority figures promote or normalize their usage. Whether through suggestive advice, direct encouragement, or personal use, gym trainers and coaches contribute to the widespread acceptance of steroids in fitness and sports culture. This section explores how their influence, motivations, and ethical responsibilities impact steroid use among gym-goers.

Young gym-goers and athletes often look up to their trainers as role models for physical

⁵³ Lamberts, S. W., van den Beld, A. W., & van der Lely, A. J. (2010). *The Endocrinology of Aging*. Science, 330(6011), 1441-1445.

⁵⁴ Dunn, M., Kimergård, A., & McKay, F. H. (2009). *Anabolic Steroid Use in the Gym: Reasons, Knowledge, and Perceptions Amongst Gym-Goers*. Drugs: Education, Prevention and Policy, 16(3), 261-273.

⁵⁵ Boardley, I. D., Grix, J., & Dewar, A. J. (2015). *Moral Disengagement and Associated Processes in Performance-Enhancing Drug Use: A National Sport Policy Perspective*. Journal of Sports Sciences, 33(9), 895-903.

excellence. Many trainers, especially in bodybuilding-focused gyms, maintain extreme muscular physiques, leading their trainees to believe that similar results are achievable through training alone. However, many of these trainers use steroids themselves, setting unrealistic expectations for young fitness enthusiasts. A study by Tscholl et al. (2008) found that athletes and gym-goers who train under steroid-using coaches are significantly more likely to consider using PEDs themselves⁵⁶. This is because they view their trainers as proof that steroids lead to superior muscle gain and performance improvements. Additionally, when young individuals fail to achieve the physiques and strength levels of their trainers, some trainers suggest that steroids might be necessary to "break through plateaus". This indirect encouragement can make gym-goers feel pressured into steroid use as a necessary step toward progress.

While some trainers provide responsible and ethical guidance, others directly promote steroids as part of their training programs. There are several reasons why trainers and coaches might encourage PED use:

1. **Client Expectations and Pressure** – Many young gym-goers want fast results and may become impatient with natural progress. To retain clients, some trainers suggest steroids as a shortcut to muscle gain and strength improvement.
2. **Financial Incentives** – Some trainers and gym staff sell steroids themselves or receive commissions from dealers. This financial motivation leads them to actively encourage their clients to use PEDs.
3. **Competitive Advantage for Athletes** – In professional or semi-professional sports, coaches sometimes pressure athletes into using steroids to ensure they perform at their best and maintain a competitive edge.

A study by Petroczi & Naughton (2011) revealed that athletes who feel pressure from their coaches to perform at higher levels are more likely to use steroids, even if they were initially against it. This demonstrates how authority figures can manipulate athletes into PED use under the justification of improving performance and career prospects. Certain gyms, particularly those focused on bodybuilding and powerlifting, have a culture of steroid

⁵⁶ *The Use of Doping Agents, Including Anabolic Steroids, in Competitive Sports*. British Journal of Sports Medicine, 42(6), 457-462.

acceptance, where coaches openly discuss steroid cycles and dosages as if they were regular supplements⁵⁷. This normalization makes young gym-goers believe that steroid use is just part of the fitness industry. A report by Dodge & Hoagland (2011) highlighted that many competitive bodybuilding coaches consider steroids a "necessary evil" for success. They justify steroid use as a requirement for elite physiques, making young athletes believe that steroids are not just an option, but a necessity for reaching high levels in fitness and sports. Furthermore, unethical trainers downplay the risks associated with steroid use, emphasizing benefits like muscle growth, strength, and recovery while ignoring or dismissing potential side effects such as liver damage, heart problems, and mental health issues.

Trainers and coaches can also influence steroid use through psychological manipulation. Some use guilt, peer pressure, or fear of failure to push their athletes toward PEDs.

- **Guilt and Obligation** – Coaches may tell athletes that not taking steroids is letting the team down or that they owe it to their gym/training program to be the best.
- **Fear of Losing Opportunities** – Young competitors who rely on sports for scholarships or career prospects may feel forced into steroid use to avoid falling behind or losing a chance at success.
- **"Everyone Else is Doing It" Mentality** – Some trainers convince their clients that all professional athletes use steroids, making it seem like a standard and unavoidable part of fitness culture.

A study by Lucidi et al. (2017) found that athletes who experience higher levels of psychological pressure from their coaches are more likely to rationalize steroid use as a necessary part of competition. This suggests that external pressure and fear of failure are key psychological factors in steroid adoption among gym-goers and athletes.⁵⁸

Many young gym-goers are not fully informed about the long-term consequences of steroid use, and trainers rarely educate them about the potential risks. Instead of providing objective, science-based information, unethical trainers only highlight the positive effects of steroids,

⁵⁷ *Performance Enhancement Drugs: Knowledge, Attitudes, and Behavior in Elite Athletes*. Scandinavian Journal of Medicine & Science in Sports, 21(2), 299-307.

⁵⁸ *Doping Attitudes and the Use of Legal and Illegal Performance-Enhancing Substances Among Italian Adolescents*. Journal of Sports Sciences, 35(2), 172-179.

creating a biased perspective. A study by Nicholls et al. (2020) found that only 23% of gym-goers received accurate information about steroid risks from their trainers, while over 60% were given misleading or incomplete details. This lack of proper education leaves many young individuals vulnerable to dangerous steroid use without understanding the long-term impact on their health. Gym trainers and coaches hold significant influence over young athletes and gym-goers, shaping their fitness goals, perceptions of progress, and attitudes toward steroid use. While many trainers promote ethical and natural training, others contribute to steroid normalization through direct encouragement, personal use, and misinformation. To reduce the influence of trainers on steroid use, stricter regulations and ethical guidelines should be enforced within the fitness industry. Additionally, educating young gym-goers on the risks of PEDs, promoting natural bodybuilding, and ensuring proper oversight on trainer conduct can help prevent the spread of steroid culture in gyms

CHAPTER IV

CASE STUDIES AND ANECDOTES

While statistics and research provide a broad understanding of steroid use among young gym-goers, real-life experiences reveal the personal struggles, motivations, and consequences behind these choices. Many individuals turn to anabolic steroids in pursuit of muscle gain, enhanced athletic performance, or improved self-confidence, but their journeys often take unexpected and sometimes dangerous turns. Some users achieve rapid physical transformation and temporary success in fitness competitions, while others face severe health complications, emotional distress, and legal troubles. The psychological toll, including body dysmorphia, addiction, and depression, is often underreported but deeply impactful.

In this chapter, I will explore first-hand accounts of young steroid users—both those who experienced success and those who suffered irreversible consequences. These case studies highlight the short-term allure and long-term risks of steroid use, providing valuable insights into the realities beyond the hype. Additionally, former users share their lessons learned, recovery experiences, and advice for young gym-goers, offering a cautionary perspective on the dangers of performance-enhancing drugs.

4.1.1 Real-Life Experiences of Young Gym-Goers Using Steroids

In Tamil Nadu, the pursuit of enhanced physiques has led some young gym-goers to consider

anabolic steroids as a means to achieve rapid muscle growth and improved performance. While comprehensive data specific to this region is limited, certain incidents highlight the potential risks and consequences associated with steroid use.

Case Study: Tragic Outcome of Steroid Misuse

Name: Karthik (Name changed for privacy)

Age: 25

Occupation: Bodybuilder and Gym Trainer

Location: Avadi, Tamil Nadu

Reason for Using Steroids: To prepare for an upcoming bodybuilding competition

Substances Used: Unspecified anabolic steroids and supplements

Karthik was a dedicated bodybuilder and gym trainer in Avadi, Tamil Nadu. With an upcoming competition on the horizon, he sought to enhance his physique rapidly. Believing that anabolic steroids and various supplements would give him a competitive edge, he began an intensive regimen without medical supervision. In the weeks leading up to the contest, Karthik experienced significant physical changes, including increased muscle mass and reduced body fat. However, he also began to suffer from severe health issues, such as elevated blood pressure and intense fatigue. Ignoring these warning signs, he continued his steroid and supplement intake. Tragically, just days before the competition, Karthik was found unresponsive and was rushed to the hospital. Medical authorities and his family reported that his death was due to complications arising from excessive intake of steroids and other supplements. This incident underscores the dangers of unsupervised steroid use and the potential for fatal consequences. Karthik's story serves as a stark reminder of the severe health risks associated with anabolic steroid misuse. While the desire for rapid physical enhancement can be compelling, especially in competitive environments, the potential for adverse effects—including life-threatening complications—cannot be overlooked. This case highlights the critical need for awareness, education, and medical guidance for individuals considering performance-enhancing substances.⁵⁹

The Tragic Death of Naved Jamil Khan – A Warning against Steroid Abuse

Naved Jamil Khan was a 23-year-old aspiring bodybuilder from Mumbai, located in the

⁵⁹ Source: "Body builder dies before contest in Tamil Nadu" – *The Times of India*, March 30, 2023.

Thane district of Maharashtra, India. Like many young gym enthusiasts, Khan was passionate about fitness and had dreams of making a name for himself in the bodybuilding industry. He regularly trained at a local gym, where he followed an intense workout regimen and adhered to strict dietary practices to sculpt his physique. As bodybuilding competitions demand extreme muscle definition and bulk, Khan sought to enhance his performance and appearance through various means. Encouraged by peers and possibly influenced by social media and professional bodybuilders, he turned to anabolic steroids to achieve rapid muscle gain and a competitive edge. Reports indicate that Khan was preparing for an upcoming bodybuilding competition, pushing his body to its limits. In addition to heavy weightlifting and a high-protein diet, he allegedly consumed an excessive amount of steroids and other performance-enhancing drugs (PEDs). His goal was to rapidly gain muscle mass while achieving a lean, shredded physique that would help him stand out in competition. However, in the days leading up to his death, Khan developed a high fever and started feeling weak. Instead of seeking immediate medical attention, he reportedly continued his training, believing the symptoms to be a temporary setback. As his condition worsened, he was finally admitted to a hospital, where doctors diagnosed him with Hepatitis B—a serious liver infection. Medical tests further revealed that his body contained dangerously high levels of cortisol and other steroids, suggesting prolonged and excessive use. The doctors warned his family about the severe impact of steroid abuse on his liver and overall health. Despite intensive medical intervention, Khan's condition deteriorated rapidly, and he succumbed to acute liver damage.

Although Hepatitis B was listed as the official cause of death, medical experts strongly believe that steroid abuse played a significant role in weakening his liver, making him more susceptible to severe complications. The use of anabolic steroids has been linked to various liver disorders, including:

- Hepatic tumors – abnormal growths in the liver
- Cholestasis – impaired bile flow, leading to liver toxicity
- Peliosis hepatis – blood-filled cysts in the liver, which can rupture and cause fatal bleeding

Experts suggest that long-term and unregulated steroid use significantly increases the risk of such complications, especially when combined with extreme dieting and dehydration—

common practices among bodybuilders preparing for competitions.

Khan's tragic story serves as a warning about the hidden dangers of steroid use among young bodybuilders. In India, steroid abuse in gyms is often overlooked and underreported, despite its serious health consequences. Many aspiring fitness enthusiasts, influenced by social media, fitness influencers, and competitive pressure, resort to using steroids without proper medical supervision.

His case highlights the urgent need for awareness and education on the risks of steroid abuse, including:

- Liver damage and organ failure
- Cardiovascular diseases (heart attacks, strokes)
- Psychological effects (aggression, mood swings, depression)
- Dependency and withdrawal symptoms

In memory of young athletes like Naved Jamil Khan, fitness communities, gym trainers, and health professionals must work together to promote safe bodybuilding practices. Encouraging natural fitness, balanced nutrition, and supervised training can help prevent such unnecessary tragedies in the future. *"Youngsters must be educated about the dangers of steroids before they lose their lives chasing a dream."* – Health Expert on Naved Khan's case⁶⁰

4.1.2 Success and Failure Stories: Benefits vs. Consequences

Bodybuilding and steroid use often go hand in hand in the pursuit of extreme physical transformation. While some athletes achieve their desired results and gain fame, others suffer severe consequences, including irreversible health issues and even death. This section explores both success and failure stories, highlighting the short-term benefits and long-term risks associated with steroid use.

Success Stories: The Allure of Steroids in Bodybuilding

1. Arnold Schwarzenegger – A Controlled Approach to Steroids

⁶⁰ "Bodybuilder dies from steroid use," *Mumbai Mirror*, mumbaimirror.indiatimes.com

Arnold Schwarzenegger, one of the most iconic bodybuilders in history, admitted to using anabolic steroids during his competitive years. Unlike many modern-day athletes, Schwarzenegger claimed that he used steroids under medical supervision in an era when they were legally available for performance enhancement. His controlled approach contributed to his seven-time Mr. Olympia victories, movie career, and later political success. However, Schwarzenegger has since spoken about the potential dangers of steroid abuse, warning young bodybuilders against uncontrolled use. He has advocated for natural bodybuilding, emphasizing that long-term health should always take priority over short-term gains. *“Steroids were used to maintain muscle during a diet, but never to replace hard work. Today, misuse has become a major problem.”* – Arnold Schwarzenegger⁶¹

Ronnie Coleman: A Story of Both Success and Failure in Bodybuilding

Ronnie Coleman’s journey in bodybuilding represents both the ultimate success story and a cautionary tale of extreme physical transformation. While he achieved legendary status as one of the greatest bodybuilders of all time, his relentless pursuit of perfection and use of performance-enhancing drugs (PEDs), including steroids, came at a great personal cost. His story is a prime example of how steroids can lead to unmatched success but also irreversible damage.

Success Story: The Rise of a Legend

Dominating the Bodybuilding World

Ronnie Coleman made history by winning eight consecutive Mr. Olympia titles (1998-2005), a record shared only with Lee Haney. His massive size, extreme muscularity, and incredible strength redefined professional bodybuilding, making him a global icon. Coleman was famous for his insane training intensity, lifting incredibly heavy weights well beyond what most bodybuilders could handle. Some of his legendary lifts included:

- 800-pound squats
- 200-pound dumbbell presses
- 2,300-pound leg presses

⁶¹ Schwarzenegger, A. (2016). *Total Recall: My Unbelievably True Life Story*. Simon & Schuster.

Steroids and Performance Enhancement

Coleman, like many professional bodybuilders, admitted to using anabolic steroids, as they were a common part of competitive bodybuilding. However, he emphasized that steroids alone weren't responsible for his success—it was his unmatched work ethic, dedication, and genetics that set him apart.

"Yeah, I took them, but you still have to put in the work. It doesn't make you great overnight." With the combination of steroids, brutal training sessions, and disciplined nutrition, Coleman achieved one of the most jaw-dropping physiques in bodybuilding history.⁶²

Failure Story: The Heavy Price of Extreme Bodybuilding

Severe Injuries and Health Complications

Despite his dominance, Coleman's extreme approach to training and reliance on performance enhancers took a devastating toll on his body. He underwent over 13 major surgeries, including:

- Spinal surgeries due to multiple herniated discs
- Hip replacement surgeries from years of extreme squats and deadlifts
- Nerve damage that significantly reduced his mobility

As a result, Coleman now struggles to walk unassisted and often relies on crutches or a wheelchair. The once strongest bodybuilder in the world now faces chronic pain and physical limitations in his everyday life.

Regret vs. No Regret

Despite his suffering, Coleman has maintained a positive outlook, often saying he does not regret his choices. He believes the sacrifices were necessary to achieve greatness, but at the same time, he acknowledges that he could have trained smarter to avoid some of the damage.

⁶² Ronnie Coleman

“If I knew my body would break down like this, I would have trained differently. But I loved lifting heavy.”

Comparison: Success vs. Failure

Aspect	Success Story	Failure Story
Achievements	8x Mr. Olympia champion, global icon	Unable to walk properly due to injuries
Training Approach	Extreme weights, heavy lifting	Led to multiple surgeries and chronic pain
Steroid Use	Contributed to rapid muscle growth	Likely worsened long-term health issues
Legacy	One of the greatest bodybuilders ever	A warning about overtraining and PED abuse
Regret	Proud of his accomplishments	Wishes he had trained differently

The Thin Line Between Glory and Suffering

Ronnie Coleman’s rise and fall serve as both an inspiration and a cautionary tale. While steroids and intense training helped him become a legend, the long-term consequences of pushing the human body beyond its natural limits are evident in his current health struggles.

1. Steroids alone do not create champions – hard work, dedication, and genetics play a bigger role.
2. Health should always be the priority – no title or trophy is worth a lifetime of pain and suffering.

For aspiring bodybuilders, Ronnie Coleman’s story serves as both motivation and a warning—success in bodybuilding is possible, but extreme methods can lead to severe consequences.⁶³

⁶³ Business Insider. (2022). “The dark side of bodybuilding: Steroids, health risks, and tragic deaths.”

Rich Piana – The Downfall of Excessive Steroid Use

Rich Piana, a well-known bodybuilder and fitness influencer, was open about his steroid use and even educated his followers about the risks involved. However, his excessive use led to severe health complications, including an enlarged heart and liver problems. In 2017, Piana collapsed suddenly and fell into a coma, later passing away due to cardiac complications. His case serves as a strong warning against prolonged steroid abuse and its potential to cause fatal heart conditions. *“If you want to do steroids, that’s your choice, but you need to know the risks.”* – Rich Piana. The use of anabolic steroids can lead to short-term success but long-term consequences. While some bodybuilders have achieved legendary status with controlled use, many have suffered health complications, career-ending injuries, or even death. The key takeaway is that hard work, proper nutrition, and natural training methods are the best paths to long-term health and fitness. Young athletes must be aware of the dangers and avoid falling into the trap of shortcuts that come with irreversible risks.⁶⁴

CHAPTER V

LEGAL AND ETHICAL ISSUES

The use of anabolic-androgenic steroids (AAS) continues to be a topic of widespread debate, not only due to their performance-enhancing capabilities but also because of the significant legal and ethical concerns they raise. Governments, sports organizations, and healthcare professionals have established various policies to regulate steroid use and mitigate its associated risks. However, the challenges of enforcement, ethical dilemmas regarding fairness in competition, and the potential health hazards of AAS remain pressing issues. This chapter aims to explore the complexities of steroid regulation and ethical responsibility, shedding light on the legal restrictions, societal implications, and public health concerns related to their use.

Anabolic steroids are classified as controlled substances in many countries, making their possession, sale, and distribution subject to legal scrutiny. Despite these restrictions, their use remains prevalent, particularly within the fitness and bodybuilding communities. The existing legislation surrounding steroids, including anti-doping policies in sports, the legal status of steroid use in fitness and bodybuilding, and the consequences of possession and distribution.

⁶⁴ New York Post. (2017). “Rich Piana’s sudden death: The risks of extreme bodybuilding.”

The role of law enforcement and the effectiveness of these legal measures in curbing steroid misuse will also be explored.

Beyond legal considerations, the ethical implications of steroid use are equally significant. Ethical concerns such as the health risks associated with steroids, the need for informed consent among users, and the societal pressures that drive individuals toward performance-enhancing substances. The responsibility of fitness professionals and trainers in guiding users toward safe and ethical fitness practices is another critical discussion point. Additionally, this section highlights the ethical responsibility of governments and institutions to protect public health, particularly in safeguarding minors from the harmful effects of AAS use.

The regulation of anabolic steroids varies widely across different countries; with some adopting stringent bans and others allowing controlled medical use. Comparative analysis of these varying legal frameworks, highlighting discrepancies in enforcement, legal loopholes, and the impact of international efforts to standardize steroid regulation. Understanding these differences is crucial for policymakers and healthcare professionals in shaping more effective policies that balance personal autonomy, public health, and ethical considerations. As steroid use continues to rise, particularly among athletes and fitness enthusiasts, the need for a comprehensive approach to regulation and ethical oversight becomes increasingly vital. Legal frameworks must adapt to address emerging challenges such as online steroid sales, underground markets, and the evolving landscape of performance-enhancing substances. Similarly, ethical discussions must evolve to consider the long-term societal impact of steroid use, including its influence on youth, mental health, and the integrity of competitive sports. By examining the legal restrictions, ethical considerations, and international policies surrounding steroid use, this chapter seeks to provide a thorough understanding of the multifaceted issues at play. Ultimately, the goal is to foster informed decision-making, encourage responsible use, and promote regulatory policies that ensure fairness, health, and safety for all individuals involved in fitness, sports, and healthcare.

5.1.1 Legislation on Steroid Use

The regulation of anabolic-androgenic steroids (AAS) has been a critical issue for policymakers, sports authorities, and healthcare professionals worldwide. Steroids are widely used in competitive sports, bodybuilding, and fitness communities, often for performance enhancement and aesthetic gains. However, due to their potential for abuse and significant

health risks, many countries have introduced strict legal frameworks to control their distribution, possession, and use. The legislation surrounding steroids focuses on four key areas: their classification as controlled substances, anti-doping regulations in professional sports, their role in fitness and bodybuilding, and laws governing their sale and distribution.

Many countries have classified anabolic steroids as controlled substances due to their high potential for abuse and harmful side effects. In the United States, steroids were added to the Controlled Substances Act in 1990, making their non-medical use illegal⁶⁵. In the United Kingdom, steroids are classified as Class C drugs, meaning possession for personal use is not an arrestable offense, but supplying them is illegal⁶⁶. Australia and Canada have also implemented strict regulatory measures, requiring a prescription for medical use⁶⁷.

Despite these restrictions, the illegal steroid trade continues to thrive, particularly through underground markets and online platforms. Many individuals turn to unauthorized sources to obtain steroids, often exposing themselves to counterfeit or contaminated substances⁶⁸. To combat this, governments have increased penalties for illegal distribution and expanded surveillance of online drug markets⁶⁹.

Anti-Doping Regulations in Sports

Sports organizations worldwide have implemented stringent anti-doping measures to ensure fair competition. The World Anti-Doping Agency (WADA) plays a central role in regulating performance-enhancing substances, including anabolic steroids, through extensive drug testing programs⁷⁰. Major international sporting events, such as the Olympics, FIFA World Cup, and Tour de France, have strict anti-doping policies, with severe penalties for athletes who test positive for steroids⁷¹.

In professional sports leagues like the National Football League (NFL), Major League Baseball (MLB), and the International Olympic Committee (IOC), athletes undergo regular

⁶⁵ United States Controlled Substances Act, 1990.

⁶⁶ UK Misuse of Drugs Act 1971 (Updated)

⁶⁷ Australian Government Department of Health, Anabolic Steroid Regulations, 2020.

⁶⁸ Bhasin, S. et al. (2016). *Anabolic steroids and their impact on male reproductive health*. Journal of Endocrinology & Metabolism, 101(3), 785-793.

⁶⁹ Pope, H.G. & Kanayama, G. (2012). *Anabolic-androgenic steroids and psychiatric-related effects*. Current Psychiatry Reports, 14(5), 379-387.

⁷⁰ World Anti-Doping Agency (WADA), 2021 Annual Report.

⁷¹ International Olympic Committee (IOC), 2022 Anti-Doping Regulations

drug testing⁷². Violations can lead to suspensions, disqualifications, and lifetime bans from competition⁷³. Despite these efforts, some athletes continue to seek new ways to evade detection, leading to ongoing updates in drug testing technology and stricter enforcement measures⁷⁴.

Steroids in Fitness and Bodybuilding

Unlike professional sports, the fitness and bodybuilding industries present a unique challenge in regulating steroid use. Many individuals in these communities use AAS not for competition but for personal aesthetic enhancement⁷⁵. In some gyms, particularly in bodybuilding communities, steroid use is widely accepted and even encouraged. Unlike professional athletes, fitness enthusiasts are not subjected to drug testing, making regulation difficult⁷⁶.

Some bodybuilding organizations, such as Natural Bodybuilding Federations, have introduced drug-free competitions to promote fair play and healthy practices⁷⁷. However, in mainstream bodybuilding events, steroid use remains prevalent. Regulatory efforts in this sector often focus on public education and awareness campaigns rather than strict legal enforcement⁷⁸.

Possession, Sale, and Distribution

The legal consequences for possession, sale, and distribution of steroids vary by country. In many nations, possessing steroids without a prescription is illegal, and violators may face fines, imprisonment, or both⁷⁹. Selling or distributing steroids is considered a more serious offense, often carrying harsher penalties⁸⁰.

Despite these legal restrictions, underground steroid markets continue to flourish, particularly

⁷² National Football League (NFL) Drug Policy and Testing, 2021.

⁷³ Major League Baseball (MLB) Joint Drug Prevention Program, 2021.

⁷⁴ Kanayama, G., Hudson, J.I., & Pope, H.G. (2010). *Illicit anabolic-androgenic steroid use and the neuropsychological consequences*. Trends in Cognitive Sciences, 14(5), 226-234.

⁷⁵ Griffiths, S., Murray, S.B., Krug, I., & McLean, S.A. (2018). *The role of steroid use in muscle dysmorphia: A systematic review*. Body Image, 27, 1-10.

⁷⁶ Brower, K.J. (2002). *Anabolic steroid abuse and dependence*. Current Psychiatry Reports, 4(5), 377-387.

⁷⁷ Natural Bodybuilding Federation (NBF) Drug-Free Competition Guidelines, 2022.

⁷⁸ *Anabolic androgenic steroids and violent offending*. Journal of Forensic Sciences, 50(1), 93-101.

⁷⁹ Canada Controlled Drugs and Substances Act, 1996.

⁸⁰ Interpol Report on Illegal Steroid Trade, 2021.

through online platforms, dark web marketplaces, and social media sales⁸¹. Many users obtain steroids from these unregulated sources, increasing the risk of consuming unsafe products⁸². In response, governments have intensified law enforcement efforts, increased monitoring of online sales, and launched undercover operations to dismantle illegal steroid distribution networks⁸³.

The legislation surrounding steroid use is complex and continuously evolving. Governments and sports organizations are actively working to control the misuse of steroids through strict legal classifications, anti-doping regulations, and enforcement measures⁸⁴. However, black-market sales, underground distribution channels, and unregulated use in fitness and bodybuilding communities present significant challenges⁸⁵.

To effectively combat steroid abuse, a multifaceted approach is necessary, combining stronger law enforcement, public education, medical oversight, and harm reduction strategies⁸⁶. As steroid use remains prevalent in both professional and recreational settings, continued legal reforms will be essential to strike a balance between public health, ethical considerations, and personal autonomy. Understanding the legal implications of steroid use is crucial for individuals to make informed decisions about their health and fitness goals⁸⁷.

5.1.2 Ethical Considerations

The ethical concerns surrounding anabolic-androgenic steroid (AAS) use extend beyond legality into issues of health risks, informed consent, societal pressures, and responsibilities within the fitness industry. Ethical debates focus on how individuals make decisions regarding steroid use, the influence of external factors such as body image expectations, and the role of professionals in guiding fitness enthusiasts. Furthermore, the impact of steroid use on vulnerable populations, particularly minors, raises moral questions about public health, youth protection, and regulatory oversight.

⁸¹ Europol Intelligence Briefing on Dark Web Drug Markets, 2022.

⁸² National Institute on Drug Abuse (NIDA) Report on Steroid Abuse, 2021.

⁸³ United Nations Office on Drugs and Crime (UNODC) Annual Report, 2022.

⁸⁴ Bjornebekk, A. et al. (2017). *Cognitive deficits in former anabolic-androgenic steroid users: A cross-sectional study*. *Psychopharmacology*, 234(3), 497-507.

⁸⁵ US Food and Drug Administration (FDA) Report on Counterfeit Steroids, 2021.

⁸⁶ *Anabolic steroid use and body image disorders*. *Body Image*, 27, 1-10.

⁸⁷ *Anabolic steroids and their long-term effects on health and behavior*. *Acta Psychiatrica Scandinavica*, 123(1), 57-63.

Health Risks and Informed Consent

One of the central ethical issues surrounding steroid use is the potential health risks involved and whether users fully understand these dangers before making decisions. Informed consent, a core principle in medical ethics, dictates that individuals should have complete knowledge of the risks and benefits of a substance before using it. However, many AAS users do not receive accurate information, making their consent to steroid use ethically questionable.

Health Risks of Steroid Use

The known health risks of steroids include cardiovascular complications, liver damage, kidney dysfunction, hormonal imbalances, and psychiatric disorders. Long-term steroid use has been linked to an increased risk of heart attacks, strokes, and arterial damage due to elevated blood pressure and cholesterol levels. Psychiatric effects, such as mood swings, aggression, anxiety, and depression, have also been widely documented. Despite these risks, many users start using steroids without professional medical supervision, often influenced by misinformation from peers or online sources. This lack of informed decision-making raises ethical concerns about whether individuals truly understand the dangers of steroid use.

Informed Consent in Steroid Use

For informed consent to be valid, individuals must be provided with reliable, science-based information about steroids' risks and effects⁸⁸. In medical settings, patients are educated about side effects before undergoing treatments. However, in the fitness and bodybuilding communities, users often rely on anecdotal experiences or misleading marketing claims from supplement companies and underground steroid suppliers⁸⁹. A key ethical challenge is ensuring that individuals receive accurate and transparent information before making steroid-related decisions. Regulatory bodies and health professionals have a responsibility to provide evidence-based education about AAS risks, promoting awareness and reducing harm. The ethical issue of health risks and informed consent highlights the need for comprehensive education and medical oversight in steroid use. Without proper knowledge, individuals may make uninformed decisions that jeopardize their health. Ethical responsibility falls on both

⁸⁸ World Anti-Doping Agency (WADA). (2021). *Ethical considerations in sports medicine*.

⁸⁹ National Institute on Drug Abuse (NIDA). (2022). *Steroids and their health risks*.

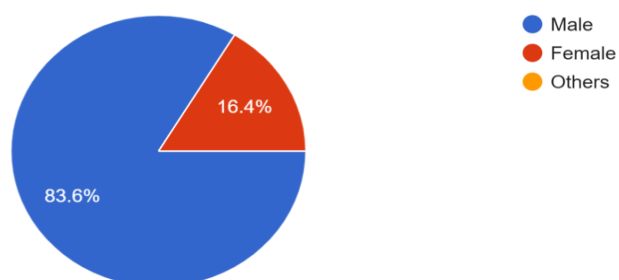
regulatory authorities and medical professionals to ensure that steroid users, especially first-time users, are aware of the dangers involved.

CHAPTER - VI

DATA ANALYSIS

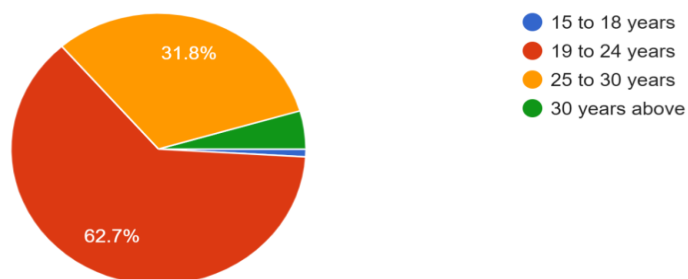
Gender

110 responses



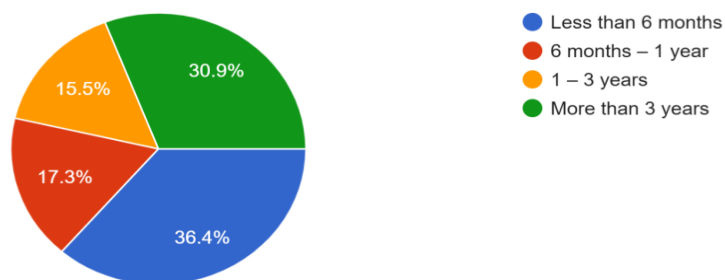
Age

110 responses



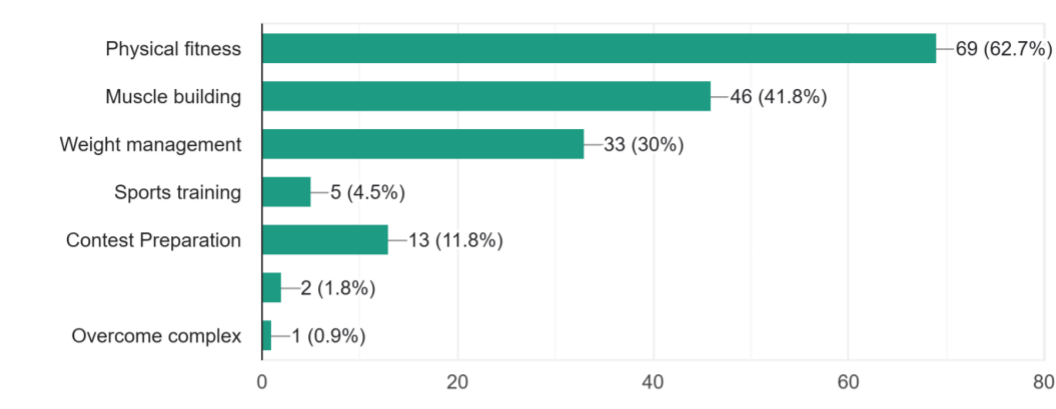
How long have you been going to the gym?

110 responses



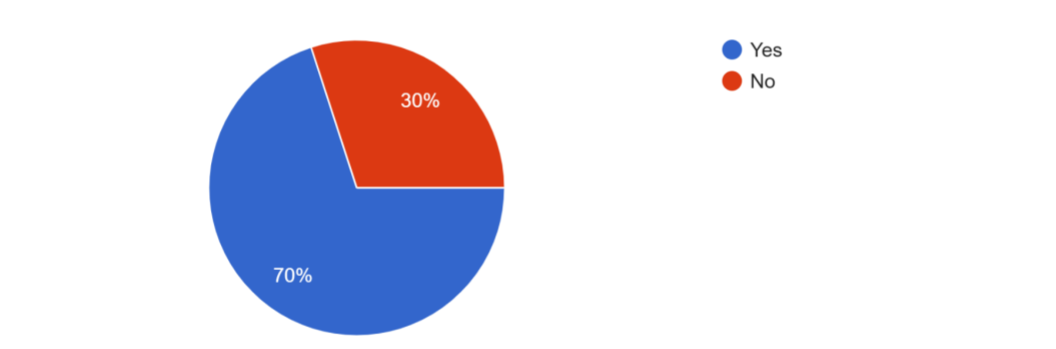
What is your primary reason for going to the gym?

110 responses



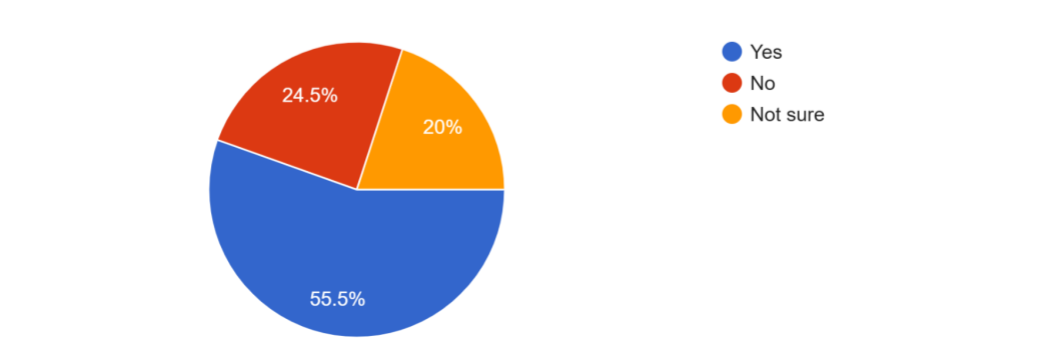
Do you know what anabolic steroids are? (Anabolic steroids are synthetic drugs that mimic testosterone to help build muscle and increase strength)

110 responses



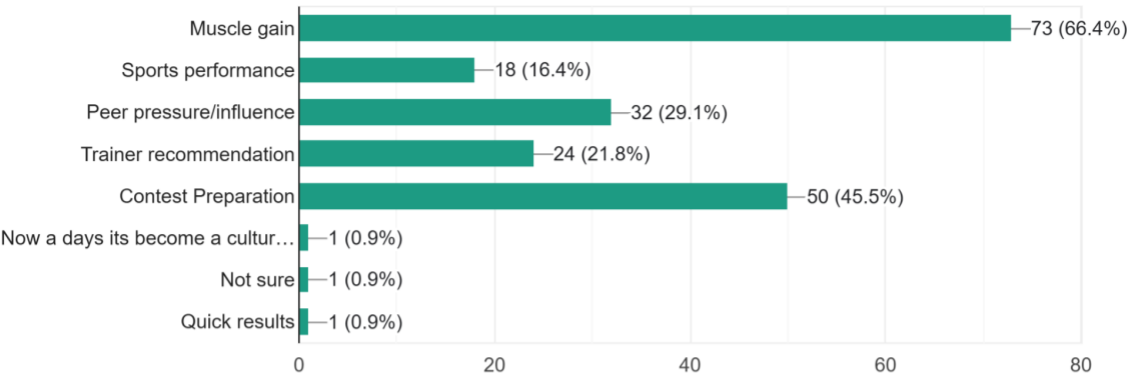
Have you noticed a culture of steroid usage in the gyms you've attended?

110 responses



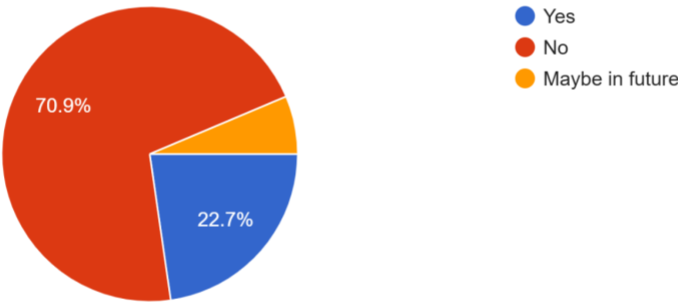
What do you think gym going youngsters main reason for using steroids is?

110 responses



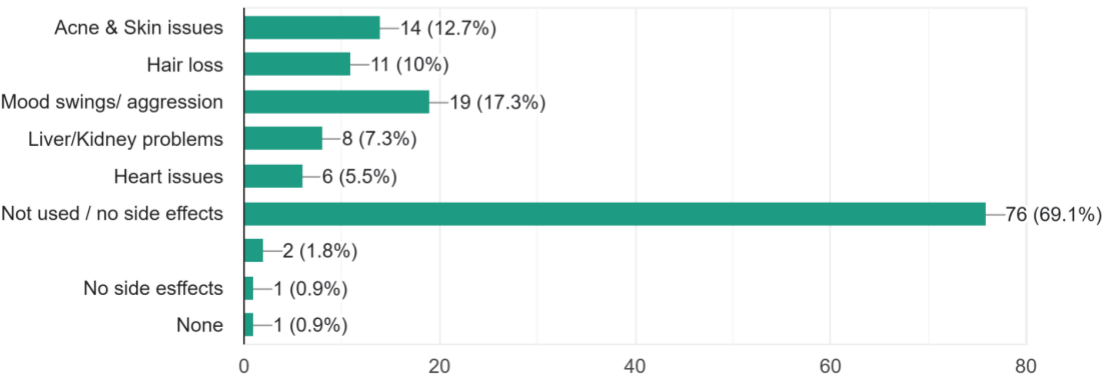
Have you ever used anabolic steroids?

110 responses



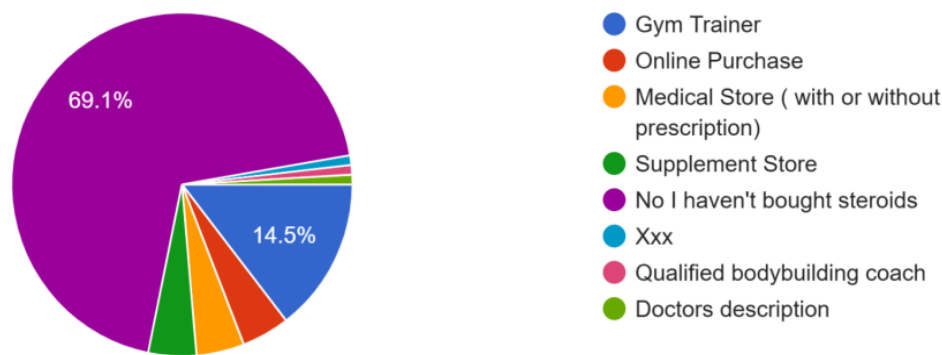
If yes, what side effects did you experience?

110 responses



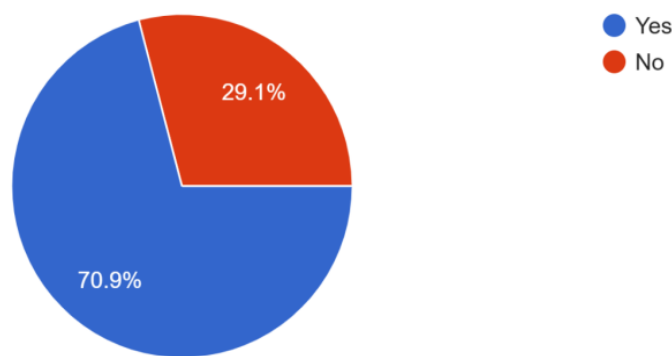
Where do you buy steroids ?

110 responses



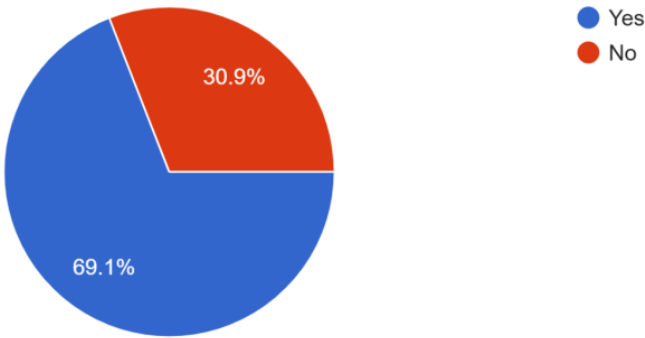
Do you know steroids are considered illegal or banned in sports and bodybuilding under Indian law?

110 responses



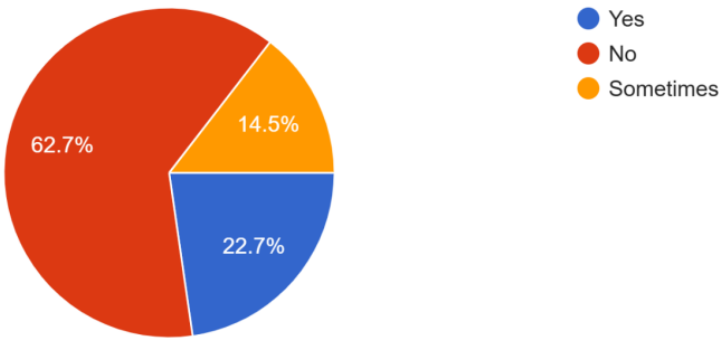
Do you believe steroids give an unfair advantage in bodybuilding and sports?

110 responses



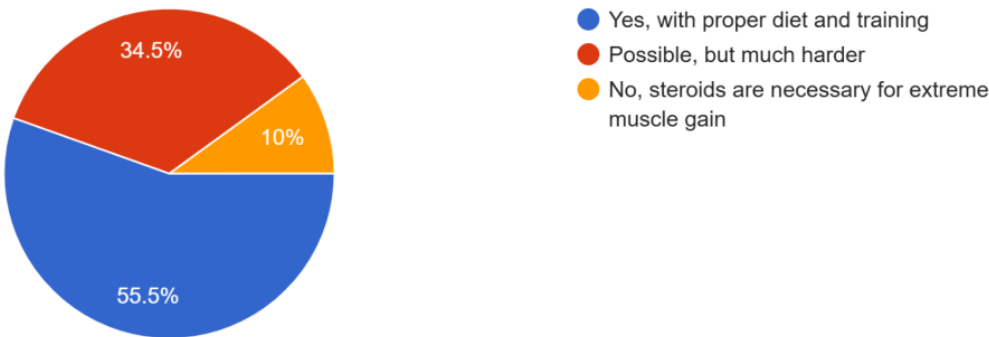
Have you ever felt pressured to consider using steroids to achieve your fitness goals?

110 responses



Do you believe people can achieve a muscular physique without steroids?

110 responses



The survey gathered responses from 110 individuals, predominantly male (83.6%) and mostly aged 19-24 years (62.7%). Participants reported physical fitness (62.7%) and muscle building (41.8%) as the primary reasons for going to the gym, with 36.4% indicating they have been gym-goers for over three years. Awareness of anabolic steroids was high, with 70% knowing what they are, although 24.5% observed a culture of steroid use in gyms. Regarding the motivations for steroid use, 66.4% believe it is mainly for muscle gain, and 45.5% think it is sought after for quick results. Notably, 70.9% of respondents reported never having used steroids. A strong majority (69.1%) believe steroids provide an unfair advantage in sports, and 55.5% feel a muscular physique can be achieved without steroids, albeit with more effort. Additionally, 69.1% stated they have not purchased steroids, and 70.9% are aware that steroids are illegal or banned in Indian sports. On the regulatory front, 52.7% expressed familiarity with steroid legislation and anti-doping agencies in India, and 75.5% advocated for stricter regulations on steroid sale and distribution.

CHAPTER- VII

CONCLUSION

The findings from the survey highlight significant insights regarding the perceptions and behaviors of gym-goers concerning steroid use and fitness goals. With a diverse population largely composed of young males, the data emphasize the prevalent attitudes towards physical fitness and bodybuilding. The majority of respondents view the gym as a means to achieve physical fitness and muscular development, reflecting a broader societal trend where health and aesthetics are becoming increasingly prioritized. Despite a considerable understanding of anabolic steroids and their effects, as evidenced by 70% awareness among participants, there remains a notable acknowledgment of a steroid culture within gyms. This indicates a juxtaposition between knowledge and practice, wherein many individuals understand the risks and legal implications associated with steroid use but still observe its presence in fitness environments. The perception that steroids grant an unfair advantage further complicates the ethical considerations surrounding their use in bodybuilding and sports competitions. The data suggest that there are underlying pressures, such as peer influence and the desire for quick results, that may compel young athletes to consider steroid use. The fact that a significant portion of respondents believes achieving a muscular physique without steroids is possible yet challenging, illustrates the awareness of sustainable fitness

practices that prioritize health over short-term gains. Amidst these insights, the majority favor stricter regulations regarding steroid availability, showcasing a proactive stance towards addressing the issue at a legislative level. This reflects a growing concern not only about personal health but also the integrity of sports and the fitness community as a whole. In light of these findings, it is crucial to foster a more informed and healthy fitness culture. The emphasis should remain on education and awareness, ensuring that gym-goers are equipped with the knowledge to make informed decisions about their fitness journeys. By promoting healthy practices and offering support for those striving to attain their fitness goals without resorting to substances like anabolic steroids, we can redefine the narrative surrounding bodybuilding and physical fitness.

Recommendations

- Develop comprehensive educational programs in gyms to inform members about the risks and legal issues associated with anabolic steroids, and promote alternative methods for achieving fitness goals.
- Foster a community-oriented environment within gyms where members can share experiences and support each other in pursuing fitness without the use of steroids.
- Establish support groups for those feeling pressured by peers or the fitness culture to use steroids, providing a safe space to discuss alternatives.
- Offer nutritional counseling as part of gym memberships, helping patrons understand the importance of diet in achieving physical fitness without resorting to steroids.
- Encourage gym owners and fitness influencers to advocate for stricter regulations against the sale and distribution of anabolic steroids.
- Provide access to mental health resources to tackle issues related to body image and self-esteem, which can often drive individuals towards steroid use.
- Partner with healthcare professionals to conduct workshops that educate gym-goers on safe fitness practices and the impact of steroids on health.

- Launch awareness campaigns that highlight real success stories of individuals achieving fitness goals through natural means, reinforcing that sustainable results are attainable.
- Implement incentive programs within gyms that reward members for achieving milestones without steroid use, promoting healthy competition.
- Establish a system for monitoring the presence of steroid use within gyms, providing anonymous reporting channels to help address this issue proactively.