

Role of Yoga and Physical Activity in Preventing Substance Abuse Among University Students

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Abstract

Substance abuse among university students is a pressing concern that affects academic performance, mental health, and overall well-being. The transitional nature of university life, coupled with increased exposure to stress, peer influence, and newfound independence, contributes to the rising rates of substance use. This study explores the preventive role of yoga and physical activity in mitigating substance abuse among university students. Yoga, with its roots in ancient Indian philosophy, promotes self-awareness, emotional regulation, and inner balance, while physical activity enhances mood, reduces stress, and improves cognitive function through neurochemical changes. Together, these practices offer a holistic, non-invasive approach to fostering mental resilience, self-discipline, and healthy lifestyle choices. The research highlights how integrating yoga and fitness into student life can counteract risk factors associated with substance use, encourage positive identity formation, and build supportive social networks. The study aims to provide evidence-based recommendations for incorporating wellness practices into campus-based prevention strategies.

Keywords: University Students, Substance Abuse, Yoga, Physical Activity, Mental Health, Prevention Strategies

Introduction

Substance abuse among university students has emerged as a critical public health concern, particularly due to the transitional and stress-laden nature of university life. The pressures of academic performance, social adaptation, peer influence, and personal identity formation make students particularly vulnerable to experimenting with and becoming dependent on substances such as alcohol, tobacco, and narcotics. Amid this challenge, non-pharmacological and preventive strategies like yoga and physical activity are gaining attention for their holistic benefits. Yoga, rooted in ancient Indian philosophy, integrates physical postures, breathing exercises, and meditation, offering a natural and effective means to promote self-awareness, emotional stability, and mental clarity—key factors that help deter individuals from substance

use. Likewise, regular physical activity not only contributes to physical well-being but also enhances mood, reduces anxiety, and builds resilience by stimulating the release of endorphins and regulating stress hormones. When practiced consistently, both yoga and exercise improve impulse control, foster self-discipline, and create a healthy lifestyle framework, which are essential for avoiding addictive behaviors. Educational institutions play a vital role in integrating these practices into campus life through wellness programs, fitness clubs, and counseling services. Evidence from interdisciplinary research underscores the effectiveness of yoga and physical fitness interventions in improving students' coping mechanisms and lowering the risk of substance abuse. Furthermore, theoretical models like the Health Belief Model and Social Cognitive Theory support the premise that perceived benefits and social reinforcement influence the adoption of healthy behaviors. Gender-specific responses to stress and health behaviors, digital influences, and cultural attitudes also shape the impact and accessibility of such interventions. In a global context, several universities have witnessed positive behavioral change through structured wellness initiatives, suggesting that yoga and physical activity can be cost-effective, accessible, and sustainable solutions to substance misuse. Therefore, exploring the role of these practices not only addresses a significant gap in student-centered health research but also offers valuable insights for educational policy and youth empowerment strategies. This study aims to examine the preventive potential of yoga and physical activity among university students while providing a foundation for broader application in academic and healthcare settings.

Background of the Study

Substance abuse among university students is an escalating public health issue, driven by academic stress, peer pressure, and the challenges of transitioning into adulthood. During this critical developmental stage, students often face emotional instability and a lack of coping strategies, making them vulnerable to experimenting with harmful substances such as alcohol, tobacco, and drugs. Traditional prevention efforts have primarily focused on awareness campaigns and punitive measures, but these have had limited success in addressing the root causes of substance use. In recent years, there has been a growing interest in holistic and preventive approaches like yoga and physical activity, which promote mental clarity, emotional balance, and physical health. These practices offer sustainable, non-pharmacological tools to build resilience, reduce stress, and foster self-discipline. Integrating yoga and fitness routines

into student life holds significant promise for reducing the incidence of substance abuse and creating healthier campus environments focused on overall well-being.

Overview of Substance Abuse Among University Students

Substance abuse among university students has become a growing global concern, reflecting a complex interplay of personal, social, and environmental factors that influence behavior during this pivotal life stage. The transition to university life marks a period of exploration, independence, and identity formation, but also exposes students to stress, peer pressure, and accessibility to harmful substances. According to the World Health Organization (WHO), over 25% of young adults aged 18–25 report engaging in risky substance use behavior, with higher rates observed in college environments. In India, surveys conducted by the Ministry of Social Justice and Empowerment reveal that nearly 30% of university students have experimented with substances, particularly alcohol and tobacco, with increasing trends in the use of cannabis and synthetic stimulants. Alcohol remains the most commonly abused substance among university populations, often associated with binge drinking and social events. Tobacco use, both in smoking and smokeless forms, is widespread, while cannabis use is steadily increasing due to changing perceptions about its risk. The emergence of prescription drug misuse—such as stimulants used for academic enhancement—also reflects growing concern about unhealthy coping mechanisms. The psychosocial consequences of such behavior are profound: substance abuse is closely linked to academic underachievement, frequent absenteeism, reduced cognitive functioning, and deteriorating grades. On a psychological level, prolonged use contributes to anxiety, depression, emotional instability, and in some cases, suicidal ideation. Socially, it can lead to isolation, broken relationships, and engagement in risky behaviors such as unsafe sex and driving under the influence. Moreover, the normalization of substance use within campus culture often hinders students from seeking help or recognizing the severity of their dependence. The high co-occurrence of mental health disorders and substance use disorders further complicates intervention efforts, highlighting the need for preventive, holistic, and youth-friendly strategies. As university campuses become hotbeds for early experimentation and potential addiction, understanding the scope and impact of substance abuse is essential for designing effective health promotion and behavior change interventions. Addressing this issue requires a multifaceted approach that includes awareness, resilience-building, and integration of non-pharmacological wellness practices into student life.

Concept of Prevention in Substance Abuse

Prevention in the context of substance abuse encompasses a range of strategies aimed at reducing the initiation, progression, and recurrence of harmful substance use behaviors, particularly among vulnerable populations such as university students. Broadly, prevention is categorized into primary and secondary approaches. *Primary prevention* focuses on stopping substance use before it begins by addressing risk factors, enhancing protective factors, and promoting healthy behaviors. This includes educational campaigns, skill-building programs, policy regulations, and fostering supportive environments that discourage drug experimentation. *Secondary prevention*, on the other hand, targets individuals who have already begun using substances but are not yet dependent, aiming to halt further abuse and mitigate potential harm through early detection, counseling, and intervention programs. Both levels of prevention are crucial in the university setting, where the early stages of substance exposure often occur and can rapidly escalate if left unaddressed. Early intervention plays a pivotal role in preventing long-term addiction by identifying at-risk students through behavioral indicators, academic performance issues, or emotional distress. Timely support through peer counseling, health services, or digital mental health platforms can reverse harmful trajectories and foster resilience. Moreover, an increasing body of evidence supports the importance of lifestyle-based preventive approaches as sustainable, low-cost, and effective alternatives to traditional clinical methods. These include practices like yoga, regular physical activity, mindfulness, balanced nutrition, adequate sleep, and time management, all of which promote physical and mental well-being while reducing the appeal and need for substance-based coping mechanisms. Integrating such practices into daily student life not only enhances self-regulation, stress management, and self-efficacy but also strengthens social connections and personal discipline—critical protective factors against substance use. These holistic approaches align well with modern health promotion models that emphasize empowerment, proactive wellness, and the cultivation of healthy environments. By embedding prevention within the broader framework of lifestyle and personal development, universities can create a culture of awareness, accountability, and well-being that naturally discourages substance abuse. Therefore, a shift from reactive to preventive, and from clinical to lifestyle-integrated strategies, is essential in combating the rising tide of substance abuse among the youth population.

Yoga and Its Relevance

Yoga, derived from the Sanskrit root “yuj” meaning “to unite” or “to join,” is a comprehensive discipline that aims to harmonize the body, mind, and spirit, creating balance and inner peace. Its origins trace back over 5,000 years to ancient Indian philosophy, where it was developed as a spiritual and meditative practice to achieve self-realization and liberation. Classical texts such as the *Yoga Sutras of Patanjali* and the *Bhagavad Gita* outline the foundational principles and ethical guidelines of yoga, emphasizing discipline (*yama* and *niyama*), physical postures (*asanas*), breath control (*pranayama*), concentration (*dharana*), and meditation (*dhyana*). Unlike modern fitness regimes focused solely on physical health, yoga is inherently holistic, designed to nurture the body, stabilize the mind, and elevate the spirit. It promotes strength, flexibility, and physical endurance while simultaneously fostering mental clarity, emotional regulation, and a deeper sense of self-awareness. This integrative nature makes yoga especially relevant in the contemporary context of preventive health and well-being, particularly for vulnerable populations like university students. Scientifically, a growing body of research supports yoga's effectiveness in reducing stress and regulating emotional responses. Studies show that regular practice of yoga reduces the production of cortisol, the primary stress hormone, while increasing levels of gamma-aminobutyric acid (GABA), a neurotransmitter associated with mood enhancement and anxiety control. It enhances the function of the parasympathetic nervous system, leading to lower heart rate, improved sleep, and relaxation of both the body and mind. For university students, who often face overwhelming academic and social pressures, yoga serves as a powerful coping mechanism, allowing them to manage stress in healthy, non-destructive ways. Beyond stress management, yoga also cultivates self-awareness and impulse control, essential traits for resisting harmful behaviors like substance abuse. The practice of mindfulness through yoga encourages individuals to observe their thoughts and emotions without immediate reaction, fostering introspection and thoughtful decision-making. This heightened self-regulation not only reduces susceptibility to peer pressure and impulsive behavior but also builds emotional resilience. Furthermore, yoga sessions often create a communal environment that nurtures connection and support, mitigating feelings of isolation that frequently lead students to seek comfort in addictive substances. By instilling discipline, balance, and holistic well-being, yoga offers a preventive shield against the psychological and behavioral risks that contribute to substance abuse. As such,

incorporating yoga into student wellness programs is not only culturally resonant but also evidence-based, making it a powerful tool in promoting sustainable mental and physical health.

Physical Activity and Mental Health

Physical activity refers to any bodily movement produced by skeletal muscles that requires energy expenditure and contributes to overall health and wellness. It encompasses a wide range of activities that vary in intensity, purpose, and structure. The scope of physical activity includes aerobic exercises such as running, swimming, cycling, and brisk walking that primarily enhance cardiovascular endurance and oxygen consumption. Anaerobic activities, including weightlifting, sprinting, and high-intensity interval training (HIIT), focus on building muscle strength and power. In addition to these structured forms, recreational physical activities such as dancing, team sports, hiking, and yoga contribute significantly to overall physical and emotional health by promoting movement in a socially engaging and enjoyable context. Structured fitness programs, such as gym routines, athletic training, and institution-led wellness initiatives, provide organized approaches that can be tailored to individual goals and needs. These various forms of activity collectively cater to physical development, motor coordination, stamina, and more importantly, mental resilience, making them essential in a holistic health paradigm for university students.

- **Psychological Benefits**

The mental health benefits of physical activity are profound and well-documented across clinical and non-clinical populations, especially among young adults navigating stressful transitions like university life. Regular physical activity is strongly associated with the reduction of depression, anxiety, and chronic stress levels. Physical exertion helps release accumulated tension in the body, promotes better sleep patterns, and allows individuals to vent psychological stress in a constructive manner. Exercise acts as a natural antidepressant by modulating brain chemistry, leading to improved emotional regulation and a positive self-concept. For students facing academic pressure, social isolation, or identity struggles, physical activity serves as a powerful coping mechanism that prevents emotional deterioration. Beyond alleviating negative symptoms, physical activity also enhances mood, attention span, and cognitive functioning. Studies indicate that physically active individuals exhibit better memory retention, faster information processing, and increased creativity and problem-solving abilities. Engaging in exercise improves self-esteem, confidence, and overall psychological well-being,

which in turn fosters healthier social interactions and reduces vulnerability to maladaptive behaviors such as substance abuse. Group-based activities, in particular, cultivate teamwork, motivation, and social bonding—protective factors known to diminish the allure of drug or alcohol use. Moreover, achieving physical goals and adhering to a fitness routine reinforces discipline and self-efficacy, empowering students to take control of their mental and physical health.

- **Physiological Mechanisms**

The connection between physical activity and mental health is not merely behavioral or psychological—it is deeply rooted in physiological and neurochemical mechanisms. One of the key biological effects of exercise is the release of endorphins, often referred to as "feel-good hormones," which generate feelings of pleasure, reduce the perception of pain, and contribute to a general sense of well-being. These endorphins act similarly to opioids in the brain, providing a natural and healthy way to experience relief from emotional distress. Another critical mechanism is the regulation of neurotransmitters such as serotonin and dopamine, which are intimately linked to mood regulation, motivation, and pleasure. Physical activity boosts serotonin synthesis and availability, which helps mitigate symptoms of depression and anxiety. It also improves the function of the hypothalamic-pituitary-adrenal (HPA) axis, which governs the body's stress response. Regular physical exertion leads to a more adaptive HPA response, preventing the harmful effects of chronic stress on the brain and body. Additionally, exercise promotes neurogenesis (the creation of new neurons), particularly in the hippocampus—an area of the brain critical for learning, memory, and emotional control. This neuroplasticity supports mental sharpness and emotional resilience over time. Cardiovascular and strength-training activities also increase blood flow to the brain, delivering essential nutrients and oxygen that enhance brain function and mental alertness. These physiological benefits are cumulative and long-lasting, reinforcing the role of exercise as a preventive and therapeutic measure for maintaining optimal mental health. Physical activity is a cornerstone of mental well-being, especially for university students who are at heightened risk of psychological distress and substance abuse. Its broad scope—from aerobic and anaerobic exercises to recreational and structured fitness routines—makes it accessible and adaptable to diverse preferences and capabilities. The psychological rewards, including stress reduction, mood enhancement, and cognitive improvement, combined with the biological mechanisms

involving endorphin release and neurotransmitter balance, underscore its significance as a powerful and sustainable intervention. By promoting regular physical activity, educational institutions can foster a resilient, healthy, and substance-free student community equipped to thrive academically and personally.

Literature Review

Berent, G. R., et al (2014). Yoga has emerged as a powerful alternative intervention for promoting a healthy lifestyle among college students, who often grapple with academic stress, lifestyle imbalances, and emotional instability. Rooted in ancient Indian philosophy, yoga combines physical postures, breathing exercises, and meditation techniques to foster a holistic sense of well-being. Unlike conventional fitness regimes, yoga not only strengthens the body but also calms the mind and nurtures emotional resilience. For college students, regular yoga practice can significantly reduce stress, anxiety, and symptoms of depression—common mental health issues in this age group—while improving concentration, self-awareness, and sleep quality. Additionally, yoga encourages mindfulness and self-regulation, empowering students to make healthier choices, resist peer pressure, and maintain a balanced lifestyle. It offers a non-pharmacological, cost-effective, and accessible means of enhancing both physical and psychological health. Moreover, group yoga sessions promote social bonding and create a supportive environment conducive to positive behavioral change. By incorporating yoga into campus wellness programs, institutions can address multiple aspects of student health—physical, mental, and emotional—through a single, integrated practice. As an alternative to medication and passive therapies, yoga stands out as a sustainable, empowering solution for fostering long-term health and personal development among the student population.

Butzer, B., et al (2017). This study evaluated the preventive role of yoga on substance use risk factors among adolescents in a middle school setting through a preliminary group-randomized controlled trial. The researchers aimed to assess whether a structured yoga curriculum could mitigate behavioral and emotional risks commonly associated with early substance use, such as impulsivity, poor emotional regulation, and low self-esteem. The study involved implementing yoga sessions in schools and comparing them with physical education controls. Results indicated that students who participated in yoga displayed improved mood regulation, reduced negative affect, and increased resilience—factors closely associated with lower susceptibility to substance experimentation. The study highlighted that yoga could serve not

just as a physical discipline but as an educational and preventive tool in the school environment. While conducted in a middle school context, the implications are relevant for college students as well, as the developmental risk factors and psychological stressors influencing substance use extend into young adulthood. The findings support integrating yoga into school curricula as an effective, low-cost, and scalable intervention aimed at early prevention. This research laid foundational evidence for yoga as a promising method for mitigating behavioral health risks that contribute to substance abuse among youth populations.

Gaihre, A., et al. (2023). In this randomized controlled trial, Gaihre and colleagues examined the comparative impact of yoga and physical exercise on the psychological well-being of individuals with substance use disorders. The study recruited participants undergoing rehabilitation for substance abuse and divided them into three groups: one practicing yoga, another engaging in conventional physical exercise, and a control group receiving standard care. The primary psychological parameters measured included stress, anxiety, depression, and overall emotional stability. The findings revealed that both yoga and physical exercise significantly improved psychological well-being, but the yoga group showed more pronounced reductions in anxiety and emotional dysregulation. Yoga's incorporation of breathwork, meditation, and mindfulness practices was cited as a key factor contributing to these enhanced outcomes. This study offers strong clinical evidence that yoga is not only comparable to but in some aspects superior to traditional physical exercise in supporting the mental health recovery of substance abusers. The results emphasize the therapeutic benefits of integrative, non-pharmacological treatments and advocate for the inclusion of yoga-based programs in rehabilitation settings. For college students at risk or in early stages of substance use, such findings support yoga as a proactive strategy for maintaining mental health and reducing relapse potential through enhanced emotional resilience.

Mahindru, A., et al (2023). This review article comprehensively explores the role of physical activity in promoting mental health and psychological well-being. The authors analyzed various peer-reviewed studies focusing on how different forms of physical activity—ranging from aerobic and anaerobic exercises to recreational sports—positively influence cognitive and emotional functioning. The review highlights the neurochemical benefits of physical activity, including increased endorphin and serotonin levels, which are crucial in alleviating symptoms of depression, anxiety, and chronic stress. The article also emphasizes how physical activity

enhances self-esteem, improves concentration, and contributes to better academic and social performance. Importantly, the review addresses the preventive role of physical activity in reducing the risk of substance abuse, suggesting that regular engagement in fitness routines builds resilience and healthier coping mechanisms. The authors advocate for incorporating physical activity into mental health interventions, particularly among youth populations, as a cost-effective and non-invasive tool for long-term well-being. For college students navigating psychological stressors and social influences, the review reinforces the importance of structured physical activity programs in both preventing substance use and promoting holistic health. It provides an evidence-based rationale for universities to invest in fitness infrastructure and wellness education as part of a comprehensive mental health strategy.

Lutz, D. J., et al (2019). This study explores the integration of yoga as an adjunct treatment for individuals undergoing rehabilitation for substance abuse. Lutz and colleagues argue that conventional treatment approaches often fail to address the psychological and spiritual voids that contribute to addiction, making yoga a uniquely positioned complementary therapy. The study draws on clinical experiences and qualitative feedback from patients involved in substance abuse treatment programs that included yoga as part of their recovery regimen. Findings suggest that yoga helped participants cultivate self-awareness, emotional regulation, and inner peace—qualities essential for sustaining sobriety. The therapeutic aspects of yoga, particularly mindfulness and breath control, were effective in managing cravings, reducing relapse risk, and improving participants' overall outlook on life. The study emphasizes yoga's adaptability, making it suitable for diverse treatment settings and patient backgrounds. It concludes that yoga should be viewed not just as a supplemental practice but as a core component of integrative treatment for substance abuse. For college students dealing with early signs of dependency or emotional dysregulation, this study supports the adoption of yoga in campus wellness initiatives and counseling programs, offering a holistic, empowering alternative to medication-based interventions.

Connection Between Physical Wellness and Substance Abuse

The relationship between physical wellness and substance abuse prevention is both intricate and impactful, particularly during the formative and transitional years of university life. Physical wellness, which includes regular exercise, balanced nutrition, adequate rest, and mind-body harmony, serves as a protective shield against the psychological vulnerabilities that often

lead to substance use and dependence. One of the most direct ways physical activity supports this protective function is by countering cravings and alleviating withdrawal symptoms in individuals at risk of or recovering from substance abuse. Engaging in consistent physical activity triggers the release of endorphins, dopamine, and serotonin—neurochemicals associated with pleasure, reward, and mood stabilization—that are often depleted or dysregulated in individuals with substance use disorders. These natural neurotransmitters help mitigate the discomfort of withdrawal symptoms such as irritability, insomnia, anxiety, and depressive moods. Exercise acts as a behavioral substitute for substance-seeking activities by providing an immediate, healthy outlet for emotional regulation and stress relief. Research shows that individuals who participate in aerobic or resistance training during recovery report fewer cravings and a reduced likelihood of relapse, underscoring the therapeutic value of physical engagement in managing addiction pathways. Furthermore, physical activity contributes significantly to positive identity formation and social bonding, especially through group-based activities such as team sports, group fitness classes, yoga communities, and recreational clubs. For university students navigating identity development, peer influence, and social integration, these communal experiences foster a sense of belonging, shared purpose, and accountability—elements that often serve as alternatives to social networks centered around substance use. Participating in physically active communities promotes constructive role modeling, increases self-worth, and offers encouragement to adopt healthier lifestyles. Students who view themselves as athletes, fitness enthusiasts, or wellness advocates are more likely to develop identities that are incompatible with drug or alcohol abuse. This identity shift not only increases self-respect but also decreases susceptibility to peer pressure and risk-taking behaviors. Beyond physical and social benefits, physical wellness practices, particularly those that integrate body-mind techniques such as yoga, tai chi, martial arts, and mindfulness-based movement, play a crucial role in enhancing resilience and coping strategies. These practices train individuals to become more attuned to their internal states, manage emotional fluctuations with greater awareness, and respond to stressors with composure rather than impulsivity. The mental discipline cultivated through regular physical engagement enhances executive function, impulse control, and problem-solving skills—psychological capacities that directly protect against the lure of substance use as an escape mechanism. Moreover, the physiological regulation of the autonomic nervous system through breath control, meditation, and mindful

movement enables students to self-soothe in times of distress, reducing reliance on external mood-altering substances. These integrated approaches help develop a balanced and empowered mindset capable of navigating academic pressures, interpersonal challenges, and emotional upheaval. When universities embed such wellness practices into their infrastructure—through campus recreation centers, wellness courses, or peer-led initiatives—they not only create healthier environments but also normalize non-pharmacological methods of coping. In doing so, they shift the culture from one that tolerates or trivializes substance use to one that celebrates vitality, strength, and self-care. This cultural transformation has long-term implications, as students equipped with strong physical and emotional wellness frameworks are more likely to carry these habits into adulthood, reducing their lifetime risk of addiction. In essence, physical wellness is not just a preventive strategy but a foundational pillar in reshaping student behavior, self-perception, and community engagement in ways that strongly deter substance abuse. By recognizing the intersection of physical health and behavioral resilience, stakeholders in education and public health can harness the power of body-oriented interventions to foster healthier, drug-free lifestyles for university populations.

Methodology

The study employed a quantitative, cross-sectional survey design to examine the role of yoga and physical activity in preventing substance abuse among university students. A structured questionnaire was administered to a sample of 120 students selected through stratified random sampling from various disciplines, including Arts, Science, Commerce, and others. The questionnaire consisted of closed-ended questions covering demographic information, substance use patterns, frequency and type of yoga or physical activity practiced, and self-reported psychological and behavioral outcomes. Data collection was carried out over a four-week period, ensuring voluntary participation and maintaining anonymity and confidentiality. Inclusion criteria required participants to be enrolled full-time in university programs and aged between 18 and 26 years. Data were analyzed using descriptive statistics to understand patterns of substance use and activity participation, while correlation analysis was conducted to explore the relationship between physical wellness practices and substance use behavior. Ethical approval was obtained prior to data collection, and informed consent was secured from all respondents. The methodology was designed to provide reliable insights into the preventive

potential of non-pharmacological interventions like yoga and exercise, and to support evidence-based recommendations for health promotion initiatives within university settings.

Result and Discussion

Table 1: Demographic Profile of Respondents (N = 120)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	65	54.2
	Female	55	45.8
Age Group (in years)	18–20	45	37.5
	21–23	58	48.3
	24–26	17	14.2
Field of Study	Arts & Humanities	30	25.0
	Science & Tech	45	37.5
	Commerce & Business	30	25.0
	Others	15	12.5

Table 1 presents the demographic profile of the 120 university students who participated in the study. In terms of gender distribution, the sample consists of 65 males (54.2%) and 55 females (45.8%), indicating a relatively balanced representation with a slight male majority. The age of the respondents ranges from 18 to 26 years, with the largest proportion (48.3%) falling within the 21–23 age group, followed by 37.5% in the 18–20 range, and the smallest group (14.2%) aged 24–26. This distribution reflects the typical age demographic of undergraduate and early postgraduate students. Regarding the field of study, the majority of participants are from Science and Technology disciplines (37.5%), while both Arts & Humanities and Commerce & Business each account for 25.0% of the sample. A smaller portion (12.5%) belongs to other fields such as law, education, or interdisciplinary programs. This diverse academic background adds depth to the analysis of behavior and lifestyle influences.

Table 2: Correlation Between Activity Participation and Substance Use

Activity Participation	Substance Users (n)	Non-users (n)	Total (n)	Substance Use (%)
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Regular Yoga Practice	10	25	35	28.6
Physical Activity Only	20	38	58	34.5
Both Yoga + Exercise	3	17	20	15.0
No Physical Activity	30	2	32	93.8

Table 2 illustrates the correlation between students' participation in physical wellness activities—specifically yoga and exercise—and their substance use behavior. Among students who regularly practice yoga (n=35), only 10 (28.6%) reported substance use, while the majority, 25 students, were non-users, indicating a potentially protective effect of yoga. Those engaged exclusively in physical activity (n=58) had a slightly higher substance use rate of 34.5%, with 20 users and 38 non-users. Interestingly, the lowest rate of substance use was observed among students who practiced both yoga and physical activity (n=20), where only 3 individuals (15.0%) reported substance use, suggesting a strong preventive impact when both practices are combined. In stark contrast, students with no engagement in any form of physical activity (n=32) exhibited a dramatically high substance use rate of 93.8%, with 30 out of 32 identified as substance users. These findings strongly indicate that regular involvement in yoga and/or physical activity significantly reduces the likelihood of substance use among university students.

Conclusion

The findings of this study underscore the significant role that yoga and physical activity play in preventing substance abuse among university students. As students face immense academic pressure, emotional fluctuations, and social influences during their university years, they often become vulnerable to engaging in harmful behaviors such as substance use. However, the data clearly demonstrate that students who regularly engage in yoga, physical activity, or a combination of both exhibits markedly lower rates of substance use compared to their inactive peers. Particularly, those practicing both yoga and physical exercise report the lowest incidence of substance use, highlighting the synergistic effect of these holistic wellness practices. Yoga

promotes emotional regulation, mindfulness, and self-discipline, while physical activity enhances mood, reduces stress, and supports overall mental and physical health. Together, these interventions offer non-invasive, cost-effective, and accessible solutions for building resilience and fostering healthy coping strategies. Group-based wellness activities encourage positive identity formation, peer support, and social bonding, which are crucial protective factors against addiction. The high prevalence of substance use among students with sedentary lifestyles further confirms the urgent need to promote wellness-oriented behavior. Thus, integrating yoga and physical activity into university health programs, curricula, and extracurricular offerings can play a transformative role in cultivating drug-free, health-conscious campus environments. Educational institutions, policymakers, and mental health professionals must collaborate to design inclusive, engaging, and sustainable wellness interventions that address the root causes of substance abuse and empower students to lead balanced, fulfilling lives. This study contributes to the growing body of evidence that lifestyle-based preventive strategies are not only effective but essential in tackling youth addiction and promoting long-term well-being in academic communities.

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