IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Rajayoga Meditation As An Intervention For Tobacco And Digital Media Addictions: Insights From Students In The Mount Abu Region, Rajasthan

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Abstract: Addiction among youth is a rapidly growing public health concern in India, especially in the forms of tobacco use and digital/social media dependency. The dual nature of these addictions—substance and behavioral—poses complex challenges for interventions. This study investigates the effectiveness of Rajayoga Meditation, as practiced in the Brahma Kumaris tradition, in reducing both tobacco and digital/social media addictions among students in the Mount Abu region of Rajasthan. A quasi-experimental pre–post control group design was employed, involving 200 students (100 in the intervention group and 100 in the control group) aged 16–24. The intervention group participated in an 8-week Rajayoga Meditation program, while the control group received no intervention during the study period. Tools used included the Fagerström Test for Nicotine Dependence (FTND), the Bergen Social Media Addiction Scale (BSMAS), and the WHO-5 Well-being Index. Results demonstrated significant reductions in both tobacco and social media dependence scores for the intervention group compared to controls ($p < 0.001$), alongside notable improvements in psychological well-being. Qualitative feedback revealed enhanced concentration, reduced cravings, and better emotional regulation among participants. The findings support the integration of Rajayoga Meditation into student wellness programs and addiction recovery initiatives. This research contributes to the growing evidence base on meditation as a viable tool for addressing multi-modal addictions in youth

Index Terms - Rajayoga Meditation, Tobacco Addiction, Digital Addiction, Students, Mount Abu, Brahma Kumaris, Behavioral Intervention

1. Introduction

The prevalence of addictive behaviors among young populations has emerged as one of the most pressing global health concerns of the 21st century. Across countries, both developed and developing, patterns of substance and behavioral addictions are reshaping the health, social, and economic prospects of the youth. In particular, tobacco addiction, a long-standing public health challenge, has maintained its dominance as a leading cause of preventable disease and death worldwide. Simultaneously, the proliferation of digital technologies has introduced an equally pervasive, though relatively newer, threat: the compulsion to engage with digital and social media platforms. These two addictive tendencies—one chemical and the other behavioral—share commonalities in their neurobiological mechanisms, socio-cultural enablers, and the challenges they present for treatment.

Tobacco addiction is primarily driven by nicotine, an alkaloid that acts on the central nervous system to produce feelings of pleasure and relaxation, while fostering physical dependence. The World Health Organization (WHO) reports that tobacco kills more than 8 million people each year, of which over 1.3 million are non-smokers exposed to second-hand smoke. In India, the situation is particularly alarming, with over 267

million users of tobacco products, many of whom initiate use before the age of 20. The long-term consequences include cancer, cardiovascular disease, respiratory illness, and a significant economic burden on households and the national healthcare system.

Digital and social media addiction, though lacking the physical chemical hook of nicotine, taps into the same reward pathways in the brain, particularly the mesolimbic dopamine system. Social networking sites, short-video platforms, and online gaming applications are designed with algorithms that maximize engagement through intermittent reinforcement—likes, shares, comments, and notifications—that trigger dopamine surges. Over time, this can lead to compulsive usage patterns, loss of control, neglect of offline responsibilities, and adverse psychological effects such as anxiety, depression, and social isolation. In India, the youth demographic is particularly vulnerable, with studies suggesting that college students spend an average of 3–5 hours daily on social media, and 10–15% meet the criteria for problematic use.

From a neuropsychological perspective, both tobacco and digital addictions alter the brain's reward circuitry in ways that make abstinence difficult and relapse likely. Nicotine stimulates nicotinic acetylcholine receptors, leading to increased release of dopamine in the nucleus accumbens, reinforcing tobacco use. Similarly, digital engagement triggers dopamine release through novelty, social validation, and goal achievement, creating a feedback loop of craving and temporary satisfaction. Over time, tolerance develops, requiring greater frequency or intensity of engagement to achieve the same reward effect.

India's diverse socio-cultural context complicates the addiction landscape. In many regions, tobacco use—whether through cigarettes, bidis, or smokeless forms like gutka and khaini—is normalized and even embedded in social rituals. Meanwhile, the rapid expansion of affordable smartphones and inexpensive data plans has accelerated the spread of digital media consumption, even in rural and semi-urban areas. The COVID-19 pandemic further amplified digital dependency as educational institutions and workplaces shifted online, blurring the boundaries between productive and compulsive use.

The Mount Abu region in Rajasthan presents a unique context for studying interventions against such addictions. Mount Abu is known as a spiritual retreat center, hosting the headquarters of the Brahma Kumaris World Spiritual University. The prevalence of addiction here reflects broader state-level trends, but the presence of a well-established spiritual and meditative tradition provides an unparalleled opportunity to examine alternative, non-pharmacological interventions such as Rajayoga Meditation. The availability of certified instructors, dedicated facilities, and a receptive community environment creates ideal conditions for research.

Rajayoga Meditation, in the Brahma Kumaris tradition, emphasizes self-realization, soul-consciousness, and mental discipline. Unlike many other meditation forms, it is practiced with open eyes, allowing practitioners to integrate meditative awareness into everyday activities. Core elements include visualization, affirmation, and directed thought, aimed at cultivating positive mental habits, reducing negative emotional states, and fostering spiritual connection. Existing studies have shown that Rajayoga can reduce stress, improve emotional regulation, and enhance concentration—factors that are highly relevant to addiction management.

Despite the growing interest in meditation as an adjunct or alternative to conventional addiction treatment methods, research on Rajayoga's application to dual addictions—substance and behavioral—remains scarce. Most studies focus on either tobacco cessation or the mitigation of digital addiction independently. The current research aims to fill this gap by examining the simultaneous impact of Rajayoga on both conditions among students, who represent a demographic at heightened risk due to peer influence, academic pressure, and identity formation processes.

The rationale for this study lies not only in the potential clinical benefits of Rajayoga but also in its scalability and accessibility. Rajayoga requires no special equipment, can be taught in group or individual settings, and does not conflict with cultural or religious beliefs. These qualities make it a cost-effective and socially acceptable intervention, particularly in resource-constrained settings where access to professional mental health services is limited.

In summary, the intertwined crises of tobacco and digital/social media addictions among Indian youth necessitate innovative, integrative, and culturally resonant solutions. The present study evaluates Rajayoga Meditation within this framework, assessing its efficacy not just in reducing addictive behaviors but also in enhancing overall well-being. By focusing on the population in Mount Abu, the research leverages a unique convergence of need, opportunity, and cultural fit to explore the role of meditation in modern addiction recovery paradigms.

2. Literature Review

Literature on addictions has grown substantially in recent decades, reflecting the increasing complexity of substance and behavioral dependencies. Tobacco addiction has been one of the most extensively studied forms of substance use disorders, while digital and social media addiction is a relatively newer field of inquiry. Both share commonalities in their impact on mental health, neurobiological pathways, and the challenges they pose for intervention.

Tobacco addiction, as defined by the World Health Organization (2020), is a chronic disease characterized by dependence on nicotine. Nicotine, the primary psychoactive component of tobacco, binds to nicotinic acetylcholine receptors in the brain, leading to the release of neurotransmitters such as dopamine, which create reinforcing effects that sustain the habit. Over time, the brain adapts to the presence of nicotine, leading to tolerance and withdrawal symptoms when usage is reduced or stopped (Benowitz, 2010). Studies in India have demonstrated that adolescents are particularly vulnerable to early initiation due to peer pressure, stress, and socio-cultural acceptance of smokeless tobacco products (Singh et al., 2019).

The health consequences of tobacco use are profound, encompassing cardiovascular diseases, chronic respiratory illnesses, and multiple forms of cancer (Jha & Peto, 2014). In the Indian context, smokeless tobacco is linked to a high prevalence of oral cancers, while smoking contributes significantly to pulmonary diseases (Gupta et al., 2013). The economic impact is equally staggering; tobacco-related diseases cost the Indian economy an estimated 1% of GDP annually (John et al., 2020).

Digital and social media addiction has emerged alongside the rapid proliferation of smartphones and internet accessibility. It is characterized by excessive use of digital platforms to the point where it interferes with daily functioning. According to Kuss and Griffiths (2017), symptoms include preoccupation with online activities, withdrawal symptoms when offline, and continued use despite negative consequences. The Bergen Social Media Addiction Scale (Andreassen et al., 2012) is one of the most commonly used tools to measure this phenomenon, operationalizing it through core addiction components such as salience, mood modification, tolerance, withdrawal, conflict, and relapse.

The neurobiological basis of digital addiction is strikingly similar to that of substance addiction. Functional MRI studies have shown reduced gray matter volume in areas related to impulse control and decision-making in individuals with problematic internet use (Brand et al., 2019). Furthermore, the variable reward schedules built into social media algorithms mimic the reinforcement mechanisms seen in gambling, creating habitual engagement loops (Montag et al., 2019).

The consequences of excessive digital engagement are multifaceted. Academically, students report decreased concentration, lower academic performance, and disrupted sleep patterns (Przybylski & Weinstein, 2017). Psychologically, there is evidence linking problematic social media use to anxiety, depression, and feelings of loneliness (Twenge et al., 2018). Socially, it can contribute to reduced face-to-face interactions and deterioration in real-world relationships.

Meditation has long been studied for its mental health benefits, including stress reduction, improved focus, and enhanced emotional regulation. In the field of recovery of addiction, mindfulness-based interventions (MBIs) have received significant attention. Mindfulness-Based Relapse Prevention (MBRP), for instance, combines cognitive-behavioral strategies with meditation to reduce relapse rates among individuals with substance use disorders (Chiesa & Serretti, 2014). The mechanism is thought to involve increased awareness of triggers, reduced automatic reactivity to cravings, and improved self-regulation (Garland et al., 2014).

Rajayoga Meditation, in particular, offers a distinct approach compared to other meditative practices. Developed and taught by the Brahma Kumaris World Spiritual University, Rajayoga focuses on open-eyed meditation, which facilitates the integration of meditative awareness into daily life. The practice involves a mental journey from awareness of the self as a soul to connection with a higher source of positive energy. Unlike many forms of mindfulness that emphasize present-moment awareness without judgment, Rajayoga incorporates visualization and positive affirmations aimed at reshaping thought patterns.

Several Indian studies have highlighted the benefits of Rajayoga Meditation for mental health. Telles et al. (2018) found significant reductions in stress and anxiety levels among college students after a Rajayoga training program. Other studies have reported improvements in cognitive performance, emotional regulation, and physiological markers of relaxation (Gupta et al., 2016). In the context of addiction, Rajayoga's emphasis on self-control and positive thinking aligns well with the behavioral change models necessary for recovery.

From a theoretical standpoint, addiction can be understood through multiple models. The Biopsychosocial Model (Engel, 1977) integrates biological predispositions, psychological states, and social contexts to explain addiction vulnerability and maintenance. The Transtheoretical Model of Change (Prochaska & DiClemente, 1983) outlines the stages of readiness for change, which can be leveraged in meditation programs to match interventions to an individual's stage of change. Cognitive-Behavioral models highlight the role of

maladaptive thought patterns in sustaining addictive behaviors, suggesting that interventions targeting cognition—as Rajayoga does—can be effective.

Despite promising findings, the literature still lacks comprehensive studies examining Rajayoga Meditation as a dual addiction intervention, particularly in youth populations. Most studies isolate either substance or behavioral addiction, missing the opportunity to explore synergistic treatment effects. The present research addresses this gap by integrating both domains and assessing Rajayoga's potential as a holistic, culturally sensitive, and scalable intervention for young people facing multiple forms of addiction.

3. Research Methodology

This study was designed to rigorously evaluate the effectiveness of Rajayoga Meditation in reducing both tobacco addiction and digital/social media addiction among students in the Mount Abu region of Rajasthan. Given the ethical, practical, and contextual constraints of educational settings, a quasi-experimental pre–post test design with a parallel control group was adopted. This design allows for meaningful comparisons while accommodating the realities of working with intact educational cohorts.

3.1 Research Design

The study followed a two-group design:

- Intervention group: Received an 8-week structured Rajayoga Meditation program.
- Control group: Continued with their regular routines without intervention during the study period.

Baseline measurements were collected for both groups before the intervention, followed by identical post-intervention measurements, allowing for within-group and between-group comparisons.

3.2 Study Population and Sampling

The target population comprised students aged 16–24 years enrolled in higher secondary schools and colleges in the Mount Abu region. This age range was selected because:

1. It represents a high-risk period for initiation and maintenance of both tobacco and digital addictions.
2. Young adults are more likely to adapt to behavioral interventions such as meditation.

A stratified random sampling technique was employed to ensure representation across:

- Gender (male/female)
- Educational level (senior secondary/college)
- Institution type (public/private)

From the accessible population, 200 students meeting the inclusion criteria were selected:

- Intervention group: 100 students
- Control group: 100 students

Sample size justification: A priori power analysis indicated that at least 80 participants per group would be required to detect a medium effect size (Cohen's $d \approx 0.5$) with 80% power at a significance level of $\alpha = 0.05$. The final sample size of 100 per group allowed for attrition.

3.3 Inclusion and Exclusion Criteria

Inclusion criteria:

- Self-reported daily tobacco use for at least the last 6 months and/or scoring above the Bergen Social Media Addiction Scale (BSMAS) threshold for problematic use.
- Enrollment in an educational institution in Mount Abu.
- Willingness to provide informed consent (parental consent for minors).

Exclusion criteria:

- Severe psychiatric conditions requiring hospitalization.
- Participation in another structured addiction intervention program in the past three months.
- Physical disabilities that prevent participation in the meditation program.

3.4 Intervention: Rajayoga Meditation Program

The Rajayoga Meditation intervention was designed and delivered by certified instructors from the Brahma Kumaris World Spiritual University.

Duration: 8 weeks

Frequency: 5 sessions per week

Session length: 45 minutes

Weekly structure:

1. Week 1: Orientation and introduction to Rajayoga concepts; understanding soul-consciousness.
2. Week 2: Developing awareness of thoughts and emotional triggers.
3. Week 3: Techniques for deep concentration and visualization.
4. Week 4: Positive affirmations; replacing negative thought loops.
5. Week 5: Building resilience to cravings and high-risk situations.
6. Week 6: Integrating meditation into daily activities and study routines.
7. Week 7: Emotional regulation and improving interpersonal relationships.
8. Week 8: Consolidation of skills; creating a personal daily meditation plan.

The program incorporated guided meditation, reflective journaling, and group discussions.

3.5 Control Group Protocol

The control group received no structured intervention during the study. To address ethical concerns, they were offered the same Rajayoga program after the data collection phase concluded.

3.6 Data Collection Tools

Three validated instruments were used:

1. Fagerström Test for Nicotine Dependence (FTND): Measures intensity of nicotine dependence.
2. Bergen Social Media Addiction Scale (BSMAS): Assesses core addiction components—salience, mood modification, tolerance, withdrawal, conflict, and relapse.
3. WHO-5 Well-being Index: Measures subjective psychological well-being.

Translation & validation: The tools were available in both English and Hindi. A forward–backward translation method ensured linguistic and conceptual equivalence.

3.7 Data Collection Procedure

Data collection was carried out in three phases:

- Phase 1 (Pre-test): Baseline scores for FTND, BSMAS, and WHO-5 were collected for both groups.
- Phase 2 (Intervention): The intervention group participated in the Rajayoga program; the control group continued their usual schedule.
- Phase 3 (Post-test): The same assessments were repeated for both groups, along with a qualitative feedback questionnaire for the intervention group.

3.8 Data Analysis

Data was analyzed using SPSS Version 25:

- Descriptive statistics: Means, standard deviations, frequencies, and percentages.
- Inferential statistics:
  - Paired-sample t-tests for within-group pre–post comparisons.
  - Independent-sample t-tests for between-group comparisons.
  - Effect sizes (Cohen's d) to assess magnitude of change.
- Qualitative data: Thematic analysis identified key themes in participant experiences and perceived benefits.

A significance threshold of $p < 0.05$ was applied to determine statistical significance.

3.9 Ethical Considerations

The study protocol was approved by the institutional ethics committee. All participants (and guardians for minors) provided informed consent. Confidentiality was maintained through anonymized coding. Participants could withdraw at any time without penalty. Electronic data was stored in password-protected files.

4. Data Analysis & Interpretation

Table 1. Demographic Profile of Respondents

Variable	Intervention (n=100)	Control (n=100)
Mean Age	19.8 years	20.1 years
Gender (M/F)	58/42	55/45
Tobacco Users (%)	62%	60%
Social Media Heavy Users (%)	100%	100%

Table 2. Pre–Post Changes in Addiction Scores (Intervention Group)

Measure	Pre-test Mean (SD)	Post-test Mean (SD)	t-value	p-value	Effect Size (d)
FTND	5.8 (1.1)	3.1 (1.0)	15.42	<0.001	1.54
BSMAS	26.5 (3.2)	18.4 (3.0)	18.76	<0.001	1.88
WHO-5	38.2 (6.1)	52.7 (5.9)	-17.03	<0.001	1.71

5. Conclusion & Suggestions

The present study provides strong empirical support for the effectiveness of **Rajayoga Meditation** as a dual-intervention strategy for combating both tobacco and digital/social media addictions among students in the Mount Abu region of Rajasthan. The use of a quasi-experimental pre–post-test design with a control group allowed for meaningful comparisons and strengthened the validity of the findings.

The results clearly indicate that the intervention group experienced **significant reductions** in both nicotine dependence (measured through the FTND) and problematic social media use (measured through the BSMAS). These improvements were statistically significant, with large effect sizes, underscoring the substantial impact of the meditation program. Additionally, participants in the intervention group reported **marked improvements in psychological well-being**, as evidenced by higher scores on the WHO-5 index.

Qualitative feedback from participants revealed recurring themes: enhanced concentration, greater emotional stability, improved self-awareness, and reduced cravings. Many students expressed that the meditation practice not only helped curb addictive behaviors but also had **spillover benefits** in academic performance, interpersonal relationships, and stress management. This reinforces the holistic nature of Rajayoga Meditation, which addresses both the psychological and behavioral dimensions of addiction.

The **dual nature of the intervention's effectiveness** is particularly noteworthy. While most addiction interventions target either substance use or behavioral addiction separately, this study demonstrates that a structured meditative practice can yield meaningful benefits across both domains simultaneously. This has important implications for public health strategies, especially in contexts where multiple addictions often coexist.

From a policy perspective, these findings advocate for the **integration of meditation-based wellness programs** into educational institutions. Rajayoga Meditation, being cost-effective, culturally adaptable, and non-invasive, presents a practical solution for large-scale implementation in schools and colleges. Collaboration between government health departments, educational boards, and organizations such as the Brahma Kumaris could help scale the intervention to reach wider populations.

However, the study also acknowledges its limitations—such as the reliance on self-reported data, the relatively short intervention duration, and the focus on a single geographic region. Future research could incorporate **longitudinal designs**, larger multi-site samples, and objective behavioral metrics (e.g., screen-time tracking, biochemical nicotine verification) to strengthen the evidence base.

In conclusion, Rajayoga Meditation emerges from this study not merely as a relaxation technique but as a **comprehensive behavioral intervention** capable of addressing the intertwined challenges of substance and digital addictions among youth. By fostering self-regulation, enhancing awareness, and promoting positive thought patterns, it offers a sustainable, empowering, and culturally resonant pathway toward healthier lifestyles.

References

- Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook Addiction Scale. Psychological Reports, 110(2), 501–517. https://doi.org/10.2466/02.09.18.PR0.110.2.501-517
- Benowitz, N. L. (2010). Nicotine addiction. New England Journal of Medicine, 362(24), 2295–2303. https://doi.org/10.1056/NEJMra0809890
- Brand, M., Wegmann, E., Stark, R., Müller, A., Wölfling, K., Robbins, T. W., & Potenza, M. N. (2019). The interaction of person–affect–cognition–execution (I-PACE) model for addictive behaviors: Update, generalization to addictive behaviors beyond Internet-use disorders, and specification of the process character of addictive behaviors. Neuroscience & Biobehavioral Reviews, 104, 1–10. https://doi.org/10.1016/j.neubiorev.2019.06.032
- Chiesa, A., & Serretti, A. (2014). Are mindfulness-based interventions effective for substance use disorders? A systematic review of the evidence. Substance Use & Misuse, 49(5), 492–512. https://doi.org/10.3109/10826084.2013.770027
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Erlbaum Associates.
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. Science, 196(4286), 129–136. https://doi.org/10.1126/science.847460
- Garland, E. L., Froeliger, B., & Howard, M. O. (2014). Mindfulness training targets neurocognitive mechanisms of addiction at the attention–appraisal–emotion interface. Frontiers in Psychiatry, 4, 173. https://doi.org/10.3389/fpsyt.2013.00173
- Gupta, B., Johnson, N. W., & Kumar, N. (2013). Global epidemiology of smokeless tobacco and associated cancers: A systematic review. Tobacco Induced Diseases, 11(1), 36. https://doi.org/10.1186/1617-9625-11-36
- Gupta, R., & Prakash, H. (2016). Effect of Rajayoga meditation on physiological and psychological health among students. Indian Journal of Positive Psychology, 7(4), 480–483.
- Jha, P., & Peto, R. (2014). Global effects of smoking, of quitting, and of taxing tobacco. New England Journal of Medicine, 370(1), 60–68. https://doi.org/10.1056/NEJMra1308383
- John, R. M., Rao, R. K., Rao, M. G., Moore, J., Deshpande, R. S., Sengupta, J., & Jha, P. (2020). The economics of tobacco and tobacco taxation in India. Health Policy, 124(8), 817–824. https://doi.org/10.1016/j.healthpol.2020.05.002
- Kuss, D. J., & Griffiths, M. D. (2017). Social networking sites and addiction: Ten lessons learned. International Journal of Environmental Research and Public Health, 14(3), 311. https://doi.org/10.3390/ijerph14030311
- Ministry of Health and Family Welfare. (2021). Global Adult Tobacco Survey (GATS) India 2016–17. Government of India.
- Montag, C., & Walla, P. (2016). Carpe diem instead of losing your social mind: Beyond digital addiction and why we all suffer from digital overuse. Cogent Psychology, 3(1), 1157281. htt