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Addictive Tendencies and Behavioural Impacts of Short-Form Video Consumption Among Smartphone Users

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Abstract
Objective: *This study examines the behavioural and cognitive effects of short-form video consumption (Instagram Reels, TikTok, YouTube Shorts) among individuals aged 18–55, with a focus on emotional regulation, productivity, and addictive patterns.*
Methods: *A quantitative, cross-sectional survey was conducted with 160 participants using a structured questionnaire. Data were analyzed with descriptive and inferential statistics, including correlation, t-tests, and ANOVA.*
Results: *Most participants (72.5%) were aged 17–22, with females representing 57.5%. Emotional states improved post-viewing, with happiness rising from 24.4% to 34.4% ($p < 0.05$). However, excessive viewing significantly correlated with decreased productivity ($t = 2.70$, $p = 0.008$) and impaired concentration. Entertainment and boredom relief were strong predictors of prolonged viewing ($F = 6.87$, $p = 0.002$).*
Conclusion: *Short-form video platforms provide immediate emotional gratification but carry risks of addiction, reduced focus, and sleep disturbances. Media literacy initiatives and digital well-being tools are recommended to mitigate harmful effects.*
Keywords: *Short-Form Videos, Instagram Reels, Smartphone Addiction, Digital Behaviour, Emotional Regulation, Media Consumption*

INTRODUCTION

In the age of smartphones, the ubiquity of short-form video platforms such as TikTok, Instagram Reels, and YouTube Shorts has fundamentally shifted how people consume digital content. These platforms, with their rapid, visually captivating clips, offer instant gratification that has led millions into prolonged and repetitive engagement. This phenomenon raises important concerns about behavioural addiction, mental health, and cognitive function. Recent studies have shown that the design of these platforms, which combines algorithm-driven personalized content with brief, high-intensity stimuli, taps into the brain's reward system, reinforcing habits that can be challenging to control [1][2].

Despite growing awareness, significant gaps remain in understanding the specific mechanisms underpinning short-form video addiction. While research on broader social media addiction has advanced, the unique addictive allure of short videos characterized by brevity, diversity, and seamless transitions has only recently started to be systematically explored [3]. Additionally, empirical work highlights how excessive consumption can impair attention, decision-making, and academic performance, particularly among adolescents and young adults who form the core user base of these platforms [4][5].

This study aims to address these gaps by examining the behavioural dimensions and psychological impacts of watching reels on smartphones. By drawing on the latest neuroscientific and psychological evidence, the research seeks to deepen understanding of how short-form video addiction develops and affects everyday functioning. Ultimately, it aims to provide insights for clinicians, educators, and digital platform developers to craft interventions that promote healthier media habits in an increasingly digital world.

Research Gap: Despite global evidence, little empirical research exists on the behavioural consequences of short-form video consumption in the Indian context. This study addresses this gap by examining emotional regulation, productivity, and addictive tendencies among smartphone users.

Research Questions:

1. What are the emotional and behavioural outcomes of short-form video consumption?
2. How does usage impact productivity and concentration?
3. What motivations drive prolonged viewing sessions?

MATERIALS AND METHODS

Study Design: This study employed a quantitative cross-sectional research design to examine the viewing habits, usage patterns, and psychological impacts of short-form video content, specifically Instagram Reels. The approach enabled the identification of trends, relationships, and behavioural differences across demographic groups through the statistical analysis of survey responses.

Ethical Considerations: The study adhered to established ethical research standards and was approved by the Institutional Ethics Committee of the District Hospital, King Koti, Hyderabad. Participants were fully informed about the purpose and procedures of the study before participating. Informed consent was obtained from all participants. Anonymity and confidentiality were maintained throughout, and participants had the right to withdraw from the study at any point without consequences.

Study setting: The study was conducted online, utilizing digital platforms for data collection. Survey links were distributed via social media and academic networks to reach a broad participant base across urban and semi-urban areas in India.

Sample & Recruitment: The study involved 160 participants, comprising both male and female individuals from diverse age groups and professional backgrounds. Participants were recruited using purposive and snowball sampling to ensure variation in demographics and occupations. The sample included students, lecturers, and business professionals, offering a broad representation of reel users.

Inclusion criteria:

Aged between 18 and 55 years.

Active users of Instagram or similar platforms.

Provided informed consent.

Exclusion criteria:

No prior experience using short-form video platforms.

Incomplete or inconsistent survey responses.

Data Collection: Data were collected through a structured questionnaire distributed via Google Forms, which covered demographics (age, gender, occupation, and education level) and platform usage patterns (daily viewing time and preferred viewing time). The survey also explored psychological factors, such as mood before and after watching reels, motivations for viewing, and compulsive tendencies. It assessed engagement behaviors, decision-making, and the impact on responsibilities, social interactions, and mental health. Participants reported feelings of guilt, as well as both positive and negative aspects of viewing, and suggested changes. Additionally, the survey inquired about devices used and the influence of trends or challenges on viewing habits.

Data Analysis: Quantitative data were analyzed using SPSS software (version 29). Descriptive statistics (means, frequencies, standard deviations) were computed to summarize demographic characteristics and usage behaviors. Inferential analyses, including correlation analysis, independent samples t-tests, and one-way ANOVA, were conducted to explore significant relationships and differences across demographic groups related to reel consumption and its psychological effects.

RESULTS

This study involved 160 participants, mostly young adults aged 17–22 years (72.5%), with females representing a slight majority (57.5%). Most were students (68.1%), and educational levels varied widely, with 43.8% holding bachelor's degrees and 26.3% holding doctorates. Table 1 displays the detailed demographic breakdown.

Table 1: Participant demographics and age summary (n = 160)

Category	Subcategory	Number of Respondents	Percentage (%)
Age Group	17–18 years	53	33.1
	19–22 years	63	39.4
	23–25 years	30	18.8

Category	Subcategory	Number of Respondents	Percentage (%)
	<30 years	14	8.8
Gender	Female	92	57.5
	Male	68	42.5
Occupation	Student	109	68.1
	Business	25	15.6
	Employee	15	9.4
	Lecturer	11	6.9
Education Level	High School	11	6.9
	College	13	8.1
	Bachelor's Degree	70	43.8
	Master's Degree	13	8.1
	Doctorate	42	26.3
	Others	11	6.9
Descriptive Stats	Mean Age	21.10	-
	Median Age	21	-
	Mode Age	22	-
	Age Std. Deviation	3.95	-

Smartphones were the primary device for viewing Instagram Reels, used by 95.6% of respondents. Viewing was most common in the evening (43.1%) and late-night hours (25.6%), with daily reel viewing times ranging from less than 30 minutes (21.3%) to over 3 hours (12.5%), as shown in Table 2.

Table 2: Viewing Patterns And Preferences (n= 160)

Category	Subcategory	Number of Respondents	Percentage (%)
Time of Day	Morning	13	8.1
	Afternoon	22	13.8
	Evening	69	43.1
	Late Night	41	25.6
Devices Used	Smartphone	153	95.6
	Tablet	11	6.9
	Laptop/Desktop	8	5.0
	Smart TV	3	1.9
	Other	4	2.5
Viewing Duration	<30 Minutes	34	21.3
	30 Minutes to 1 Hour	49	30.6
	1–2 Hours	36	22.5
	2–3 Hours	21	13.1
	>3 Hours	20	12.5

Emotional state assessments showed shifts toward more positive moods after watching reels. The percentage of participants reporting happiness increased from 24.4% before viewing to 34.4% afterward, while the percentage of participants reporting boredom decreased from 53.1% to 20.6%, as presented in Table 3.

Table 3: Emotional state before and after watching reels

Mood Category	Emotional State	Before Watching	After Watching
Negative Mood	Anxious	3	11
	Bored	85	33
	Indifferent	23	53
Positive Mood	Excited	10	8
	Happy	39	55
Total		160	160

Mood improvements were consistent across genders, with no significant differences observed ($\chi^2 = 1.342$, $p = 0.247$), as shown in Table 4.

Table 4: Viewing Time And Decreased Productivity

Group	Mean Viewing Time	Standard Deviation	Sample Size (n)
Decreased Productivity (Yes)	2.25	0.56	112
No Decreased Productivity (No)	1.85	0.52	48
T-Statistic	2.70	—	—
p-value	0.008	—	—

Regarding daily responsibilities, 67.5% of participants reported experiencing some degree of interference from reel viewing, with responses ranging from "sometimes" (36.9%) to "very often" (30.6%), as shown in Table 5.

Table 5: Effects of reels on responsibilities and social interaction (n = 160)

Category	Response	Number of Respondents	Percentage (%)
Interference with Responsibilities	Never	25	15.6
	Rarely	27	16.9
	Sometimes	59	36.9
	Very Often	49	30.6
Social Interaction Changes	No Change	76	47.5
	Yes, Less Social	35	21.9
	Yes, More Social	49	30.6

Nearly half of the participants reported changes in social interactions, with 21.9% becoming less social and 30.6% becoming more social. Analysis revealed that participants experiencing decreased productivity had significantly higher average viewing times (2.25 hours) compared to those without productivity loss (1.85 hours; $t = 2.70$, $p = 0.008$), as demonstrated in Table 6.

Table 6: Viewing time and decreased productivity

Group	Mean Viewing Time	Standard Deviation	Sample Size (n)
Decreased Productivity (Yes)	2.25	0.56	112
No Decreased Productivity (No)	1.85	0.52	48
T-Statistic	2.70	—	—
p-value	0.008	—	—

In terms of perceived effects, the majority cited entertainment (88.1%), learning new skills or information (64.4%), and stress relief (36.9%) as positive outcomes of reel use. Negative effects included decreased productivity (65.6%), difficulty concentrating (61.3%), sleep disturbances (58.1%), feelings of guilt (41.3%), and social isolation (35.6%), summarized in Table 7.

Table 7: Perceived positive and negative aspects of watching reels (n = 160)

Aspect Type	Insight	Frequency	Percentage (%)
Positive	Entertainment and fun	141	88.1
	Learning new skills or information	103	64.4
	Inspiration for creativity	76	47.5
	Social interaction with friends/community	81	50.6
	Keeping up with trends and culture	48	30.0
	Stress relief and relaxation	59	36.9
	Others	20	12.5
Negative	Decreased productivity	105	65.6
	Difficulty focusing on tasks	98	61.3
	Social isolation	57	35.6
	Increased anxiety or stress	38	23.8
	Feelings of guilt or regret	66	41.3
	Negative impact on sleep patterns	93	58.1
	Others	25	15.6

Motivations for viewing were linked to different consumption durations, with entertainment and boredom relief associated with longer viewing times than learning reasons, as shown in Table 8 ($F = 6.87$, $p = 0.002$).

Table 8: Motivation to watch vs. viewing time

Motivation Category	Mean Viewing Time (hours)	Sample Size (n)
Entertainment	2.4	55
Boredom relief	2.2	60
Learning	1.7	45
F-statistic	6.87	—
p-value	0.002	—

DISCUSSION

The findings of this study highlight the complex relationship between short-form video consumption and its psychological and behavioural effects on young adults. The emotional boost observed after viewing confirms that these platforms effectively provide immediate mood improvement, aligning with prior research that shows the rewarding nature of short-form digital media [6]. However, in line with other recent studies, the strong link between longer viewing times and decreased productivity points to potential risks of overuse, where the engaging format may unintentionally impair focus and task completion [1][7]. Our results regarding nighttime peak usage align with established evidence indicating that late-evening screen exposure can interfere with sleep and exacerbate cognitive fatigue [8]. This pattern suggests that while users might turn to reels for relaxation or distraction, the timing could paradoxically harm overall well-being, supporting the need for awareness about media use habits.

The absence of gender differences in mood effects matches observations by other researchers that the addictive appeal of short-form videos goes beyond demographic factors, indicating universal mechanisms driving engagement [9]. Additionally, the cognitive and behavioural challenges observed among heavier

users, such as reduced executive control and increased risk-taking, align with neurobehavioral models of addiction found in recent neuroimaging studies [10][11].

These two sides of short-form video viewing, immediate positive reinforcement alongside risks to productivity and cognition, reflect the complex nature of digital engagement. Participants reported a mix of positive experiences, like entertainment and learning, and negative effects, including social isolation and sleep disruption, echoing findings in behavioural addiction research where benefits and harms often coexist [12].

Differences in viewing times based on motivation highlight the variety of user experiences, with those motivated by entertainment and boredom relief engaging more intensely than those focused on learning. This detail supports addiction models that emphasize the importance of underlying psychological needs and user intentions in shaping consumption and risk [13].

In summary, this study contributes to and broadens the current understanding by providing evidence that links behavioural patterns of reel consumption to both psychological satisfaction and potential cognitive costs. It underscores the importance of considering individual motivations and usage contexts when designing interventions. Future research with longitudinal approaches and objective measures will be key to understanding causality and developing personalized digital wellness strategies.

CONCLUSION

This study successfully explored the behavioural and psychological effects of short-form video consumption, specifically Instagram Reels, among a diverse group of users. The findings highlight how the platform's unique design features foster habitual and extended use, which may lead to addictive behaviours. Additionally, the study identifies significant psychological impacts, such as reduced attention and impaired decision-making, especially among younger users who make up the main user base. By addressing gaps in understanding the mechanisms behind short-form video addiction, this research offers valuable insights for clinicians, educators, and platform developers. Ultimately, these results underscore the urgent need for targeted interventions and healthier digital media practices to mitigate the negative effects of excessive short-form video use, aligning with the study's goal to enhance understanding and inform effective solutions in this emerging area. Future research should focus on long-term studies to examine the enduring cognitive and mental health effects of short-form video addiction and assess the effectiveness of specific intervention methods. Additionally, partnering with digital platform designers to implement user-friendly controls and encourage responsible content consumption could play a key role in promoting healthier media habits in the future.

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CONFLICT OF INTEREST

Sobia Noor, Amtul Huda, and Zareen Humaira declare that they have no conflict of interest.

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AUTHOR CONTRIBUTIONS

Sobia Noor: Conceptualization, Data Collection, Supervision, Writing Original Draft.
Amtul Huda: Methodology, Formal Analysis, Writing Review, and Editing.
Zareen Humaira: Validation, Writing Review, and Editing.
Bheri Emmanuel Akanksh: Clinical Input, Literature Review.
Kanchana Dussa: Statistical Analysis, Visualization, Manuscript Preparation.
A. Venkateshwar Reddy: Critical Revision of Manuscript.
Sabiha Fatima: Data Validation, Manuscript Review.

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