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TRAPPED IN 15 SECONDS: BREAK THE LOOP ADDRESSING SHORT-FORM VIDEO ADDICTION IN CHILDREN AND TEENS

Paediatrics

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ABSTRACT

Background: Short-form video platforms (e.g., TikTok, Instagram Reels, YouTube Shorts) are designed to maximize engagement, raising concerns about compulsive use in children and adolescents. **Aim:** To investigate the impact of short-form video consumption on behavioural health in children and adolescents. **Methods:** A cross-sectional study of 200 participants aged 5–17 years was conducted at a tertiary care centre using a validated digital screen-time questionnaire. Outcomes measured included daily screen time, sleep disturbances, reduced attention, and mood irritability. Data were analyzed using ANOVA and chi-square tests. **Results:** Screen time increased significantly with age ($p < 0.001$), with adolescents (14–17 years) averaging 3.6 hours/day versus 0.9 hours/day in younger children (5–7 years). Sleep disturbances, attention deficits, and irritability rose with age and screen use ($\chi^2 = 17.57$, $p = 0.0005$). Only 32% of adolescents had active parental monitoring compared to 70% of younger children. **Conclusion:** Short-form video consumption shows age-dependent associations with sleep disturbance, attention deficits, and irritability. Early interventions such as structured screen limits, digital literacy education, and parental monitoring are essential to mitigate risks.

KEYWORDS

Short-Form Video, Screen Addiction, Adolescents, Sleep Disturbance, Attention Span

INTRODUCTION

Swipe. Scroll. Repeat. The New Childhood Crisis Needs a Wake-Up Call. Short-form videos—like YouTube Shorts, Instagram Reels, and TikToks—are designed to be addictive. With autoplay, dopamine-triggering content, and endless scrolling, children and teens are getting trapped in a cycle of passive consumption. This is not just screen time—it's compulsive behaviour that can disrupt sleep, attention, and emotional regulation. According to Media censes, 2023, Children aged 10–17 spend an average of 3.5 hours/day on short-form video apps. Over 70% of users report difficulty stopping once they start scrolling. Excessive use is linked to Reduced attention span, Sleep disturbances, Decreased academic performance, Increased anxiety and social withdrawal. Fast-paced, highly stimulating content, Personalized algorithmic feeds, Instant rewards (likes, views, new content), Mimics behavioural patterns of dopamine-based addictions. With this overview we aim to identify the impact of short form videos and recommend targeted interventions and awareness strategies.

AIM AND OBJECTIVE

Aim

Aim is to investigate the impact of short-form video content on children's and adolescents' behaviour and to identify practical strategies to reduce addictive screen use.

Objective

Quantify average daily usage of short-form video platforms across different age groups (5–17 years).

Identify the percentage of children having Attention, Sleep and mood disorders.

METHODOLOGY

Study Design: Cross-sectional observational study using a questionnaire.
Population: Children and adolescents aged 5–17 years, attending a tertiary care centre.
Sample Size: N = 200 participants (age group: 5–7, 8–10, 11–13, 14–17 years)
Data Collection Tool: A validated digital screen-time questionnaire including: Daily duration of short-form video use, Behavioural signs (irritability, sleep issues, concentration)

Inclusion Criteria

Children aged 5–17 years, Consent from parent/guardian

Exclusion Criteria

Unwillingness to participate

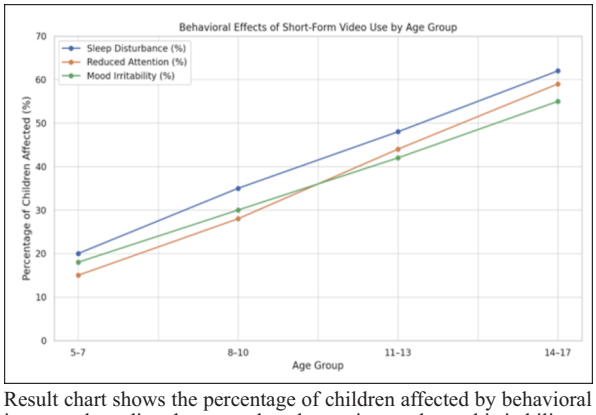
Statistical Analysis

- Descriptive stats for usage patterns
- ANOVA to compare usage across age groups
- Chi-square test to assess association between screen use and behavioural issues

RESULT

- Analysis of the data revealed a significant increase in short-form video screen time with age, with older children (14–17 years) averaging 3.6 hours per day, compared to younger children (5–7 years). This difference was statistically significant, by one-way ANOVA test ($F = 300.0$, $p < 0.001$), indicating that screen time usage differs meaningfully across age groups.
- Furthermore, a Chi-square test examining the relationship between age and sleep disturbance showed a significant association ($\chi^2 = 17.57$, $p = 0.0005$). This suggests that as age increases, the likelihood of experiencing sleep issues related to screen use also rises.
- Similar trends were observed for reduced attention span and mood irritability, both of which increased steadily with higher screen time and age group.

Age Group	Avg Daily Screen Time (hrs)	Sleep Disturbance (%)	Reduced Attention (%)	Mood Irritability (%)
5–7	0.9	20%	15%	18%
8–10	1.5	35%	28%	30%
11–13	2.8	48%	44%	42%
14–17	3.6	62%	59%	55%



Result chart shows the percentage of children affected by behavioral issues—sleep disturbance, reduced attention, and mood irritability—across age groups. The data reflects a clear upward trend, especially in adolescents, supporting the hypothesis that short-form video use has age-dependent adverse effects.

DISCUSSION

This study highlights the growing concerns about the behavioral impacts of short-form video consumption in children and adolescents. Our findings show a clear age-related increase in screen time and associated behavioural issues such as sleep disturbance, reduced attention, and mood irritability.

These results align with previous research showing that algorithm-driven, dopamine-rewarding content can induce compulsive behaviour patterns in youth, similar to other behavioural addictions like gaming (Montag et al., 2021; Turel et al., 2020). The quick, emotionally charged content common in apps like TikTok and Instagram Reels can overstimulate young minds and impair executive functioning.

Additionally, screen exposure before bedtime has been linked to melatonin suppression and disrupted sleep cycles (Carter et al., 2016), which may explain the increased prevalence of sleep issues observed in older children.

Alarmingly, parental control over screen use declines with age, as only 32% of adolescents in this study had active screen monitoring, compared to 70% of younger children. This suggests a need for continued parental involvement and stronger digital boundaries throughout adolescence. Without proactive guidance, teens are more likely to normalize excessive screen use, unaware of its long-term cognitive and emotional implications.

CONCLUSION

Short-form video platforms present a silent but escalating addiction risk for children and teens. As usage increases with age, so do negative behavioural outcomes. Our findings highlight the urgent need for - Parental guidance and monitoring, Structured screen time limits, Digital literacy education, and Promotion of healthy offline habits.

Intervening early and promoting conscious, mindful tech use is key to breaking the loop of compulsive scrolling and preserving the emotional and cognitive well-being of the next generation.

Awareness today can build a healthier, screen-smart generation tomorrow.

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