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IMPACT OF SOCIAL MEDIA USE ON ATTENTION, MOOD, SLEEP, AND LIFESTYLE BEHAVIOUR AMONG ADOLESCENTS AND YOUNG ADULTS: A COMMUNITY BASED CROSS-SECTIONAL STUDY

Mr. Venkata Naresh Settineni*[1], Dr. Hema Manogna Narne[2], Dr. B. Thangabalan[3], Mr. Rajkumar Tirupathi Reddy Macha[1], Mr. Nagarjuna Reddy Lokasani[1], Mr. Chennakesava Raju Gadiboyina[1], Mr. Sai Babu Botta[1], Mr. Dinesh Nune[1]

[1]Students, SIMS College of Pharmacy, Mangaldas nagar, Guntur, 522001.

[2]Assistant Professor, SIMS College of Pharmacy, Mangaldas nagar, Guntur, 522001.

[3]Principal, SIMS College of Pharmacy, Mangaldas nagar, Guntur, 522001.

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***Corresponding Author: Mr. Venkata Naresh Settineni**
Students, SIMS College of Pharmacy, Mangaldas nagar, Guntur, 522001.

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ABSTRACT:

The increasing integration of social media into daily life has raised concerns regarding its potential effects on attention, mood, sleep, and lifestyle behaviours among adolescents and young adults. This community based cross sectional study evaluated patterns of social media use, screen time, and their associations with attention and cognition, mood changes, sleep disturbance, and digital behaviour patterns. Data were collected from participants aged 15 years and above using a structured questionnaire assessing screen exposure, notification checking behaviour, time immersion, psychosocial effects, and lifestyle disruption. The findings indicated that moderate to high screen time and habitual social media engagement were commonly reported and were associated with perceived reductions in attention, mood fluctuations, late night screen use, and sleep disturbance. Frequent notification checking and prolonged immersion emerged as prominent behavioural patterns. Most observed effects were mild to moderate rather than severe; however, short-term physical symptoms such as eye strain and headaches were frequently reported. Participants who reduced screen use or practiced digital breaks often reported improvements in sleep quality, focus, and anxiety levels. Overall, the study suggests that social media use is associated with subtle but

widespread behavioural and lifestyle effects, highlighting the importance of addressing usage patterns and timing rather than focusing solely on total screen time.

KEYWORDS: *Social media use, Screen time, Attention, Mood changes, Sleep disturbance*

INTRODUCTION:

The extensive use of social media platforms has changed human communication, social interactions, and information intake on an unparalleled level. By the early 2020s, social media transformed into an ongoing digital environment marked by algorithm-driven personalization, measurable social feedback, and constant connectivity. Extensive surveys involving large populations consistently indicate that teens and young adults dedicate several hours daily to social networking sites, with many reporting an almost continuous online activity during their waking hours.(1) The extent and intensity of exposure have prompted basic inquiries about the possible impacts of prolonged social media use on the human brain. Social media platforms are fundamentally different from traditional media because of their interactive and socially dependent structure. Aspects like likes, comments, shares, follower statistics, and push notifications consistently associate social signals with reward anticipation and emotional assessment. Research in behavioural neuroscience has demonstrated that variable and intermittent reinforcement schedules are especially potent in enhancing habitual participation and fostering compulsive checking actions.(2) These design traits constantly stimulate attention and motivation systems, setting social media apart from more passive types of digital media consumption.

Neurodevelopmental factors are key to comprehending social media's possible effects on the brain. Adolescence and early adulthood are times of increased neuroplasticity, when neural circuits related to reward processing, emotion regulation, and executive control experience significant development.(3) At this stage, limbic and reward-associated areas mature sooner than the prefrontal cortical systems that govern cognitive control and impulse management, leading to a developmental imbalance that heightens sensitivity to social rewards and peer assessment.(4) Consequently, interaction with socially significant digital environments during this time may significantly impact learning and behaviour. Recent studies utilizing neuroimaging have started to empirically investigate the links between social media activities and brain function. Longitudinal functional MRI studies indicate that regular social media use during early adolescence is linked to developmental alterations in brain response to social rewards and penalties.(5) These results endorse theories of experience-driven neural plasticity,

indicating that consistent interaction with digital social feedback could influence the brain's processing of social assessment as time progresses.

Apart from reward sensitivity, problematic or compulsive usage of social media has been associated with changes in neural systems that facilitate executive control.[6] Neuroimaging studies that focus on structure and function reveal that people with dysregulated social networking behaviours display variances in prefrontal areas associated with inhibitory control, decision-making, and goal-oriented actions.[7] These variations in connectivity might indicate alterations in foundational neural structure linked to prolonged digital involvement.

Research from the wider literature on smartphone and internet addiction offers further context for understanding findings related to social media. Systematic analyses of neuroimaging research in teenagers suffering from internet addiction consistently indicate alterations in functional connectivity within reward, salience, and executive control networks.[8] While internet addiction includes a broader spectrum of online activities, the similarities in neural correlates indicate shared mechanisms linked to overindulgence in digital rewards. Comparative neuroimaging studies have shown parallels between smartphone addiction and internet addiction, especially concerning prefrontal and striatal systems related to impulse control and reward processing.[9] These results support the idea that social media usage might indicate one example of a wider category of digitally enhanced behaviours that activate common neural pathways.

The neural impacts of social media usage should be comprehended alongside psychological results. An increasing amount of research connects problematic social media usage to negative mental health effects, especially signs of depression, anxiety, and psychological distress.[10] Meta-analyses show that these connections are strongest in adolescents and young adults, indicating increased susceptibility during phases of brain development. Research from clinical and community settings indicates that using social media is linked to internalizing symptoms in various populations. A recent systematic review and meta-analysis indicated reliable links between social media use and depressive symptoms in both clinical and non-clinical adolescent populations.[11] These mental health effects are related to dysregulation of neural systems that control emotion processing and stress management.

Sleep disturbance serves as an important behavioural link connecting social media usage and brain performance. Systematic reviews show that high levels of social media usage are linked to delayed sleep onset, shorter sleep duration, and diminished sleep quality.[12] Exposure to emotionally charged or socially judgmental content at night can heighten cognitive arousal,

disrupting circadian rhythms and sleep management. Lack of sleep has well-documented impacts on brain function, such as decreased prefrontal control over limbic responses and increased emotional sensitivity. Neuroimaging research shows that inadequate sleep changes functional connectivity between the amygdala and prefrontal cortex, impairing emotional regulation.(13) As a result, ongoing sleep disturbance associated with social media use might indirectly lead to neural and emotional imbalances.

Public health officials have more frequently acknowledged these overlapping issues. The 2023 U.S. Surgeon General's Advisory highlighted that early adolescence is a time of heightened sensitivity, where frequent social media usage could correlate with variations in brain areas responsible for emotional learning and impulse regulation.(14) This advisory emphasizes the significance of assessing social media exposure from a neurodevelopmental perspective. Although there is increasing interest, the field encounters significant methodological obstacles. Numerous studies depend on cross-sectional designs, restricting causal conclusions about whether social media usage impacts brain function or if existing neural traits lead to increased usage.(15) Assessing social media exposure often depends on self-reports, which have been found to align poorly with objective digital trace data.

Furthermore, typical metrics like overall time spent on social media do not reflect the qualitative variations in usage behaviours. Passive scrolling, active interaction, imaginative involvement, and seeking social assistance may possess unique neural and psychological connections.(16) Not differentiating these behaviours restricts interpretability and leads to varied results in different studies. Consequently, recent studies have underscored the importance of approaches that concentrate on mechanisms. Modern models focus on actions like how often individuals check their devices, their sensitivity to feedback, comparison with others, and exposure to algorithms, rather than overall screen time.(17) This change corresponds with larger concepts of experience-driven neural adaptability.

Recent developmental neuroimaging research indicates that variations in social reward sensitivity might forecast susceptibility to addiction-like patterns of social media use.(18) Recent developments highlight the need to differentiate between short-term neural state effects and longer-term trait-like neural changes linked to frequent social media use. Experimental neuroimaging research suggests that brief exposure to socially rewarding digital stimuli can temporarily alter activity in networks related to reward and attention, while ongoing engagement may lead to more lasting changes in network organization and functional connectivity.(19) Another aspect of concern is the influence of social media

algorithms on cognitive engagement. Algorithmic curation systems focus on content driven by engagement metrics instead of informational value, resulting in constant encounters with emotionally charged, sensational, or socially comparative content.[20] Neurocognitive theories indicate that frequent exposure to intense content might skew attentional mechanisms towards novelty and emotional significance, sacrificing prolonged focus and reflective thought.[21] Eventually, this could lead to fragmented attention and a lower tolerance for low-stimulation cognitive activities.

New behavioural evidence endorses this worry, showing links between extensive social media use and diminished sustained attention, heightened distractibility, and challenges with deep cognitive involvement.[22] These behavioural trends align with neuroimaging results that indicate changed activity in attention regulation networks, such as the dorsal attention and frontoparietal systems.[23] These alterations might affect academic achievement and mental stamina, especially in younger groups. Processes of social comparison serve as another crucial way in which social media can affect brain function. Platforms showcasing selected representations of success, beauty, and social validation enhance upward social comparison, associated with negative emotions and lower self-esteem.[24] Neuroimaging studies show that social comparison engages brain areas related to self-referential processing and reward assessment, indicating that continuous comparison may strengthen unhelpful evaluative patterns.[25] Consistent involvement in evaluations based on comparisons may lead to increased emotional sensitivity and susceptibility to mood issues.

Stress physiology offers another pathway connecting social media exposure to neural effects. Experimental and observational research indicates that social evaluative threat like negative feedback or perceived exclusion online can trigger hypothalamic–pituitary–adrenal axis responses.[26] Continued or repeated activation of stress pathways is recognized to affect neural plasticity, especially in the prefrontal cortex and hippocampus, areas essential for executive function and emotional regulation.[27] This prompts worries that ongoing exposure to digitally mediated social stressors could engage brain systems that are responsive to chronic stress. Crucially, not every interaction on social media is fundamentally negative. Certain research indicates that engaging in socially supportive interactions can provide protective benefits, especially when platforms are utilized for fostering close relationships or seeking peer support.[28] Neurocognitive frameworks suggest that the effects of social media are likely influenced by the quality of usage, individual susceptibility, and situational variables rather than just exposure.[29] Differentiating adaptive engagement from maladaptive

engagement continues to be a key challenge for the field. Recent research increasingly highlights the necessity for longitudinal and experimental designs that can clarify cause and effect relationships. Progress in passive sensing, digital phenotyping, and the combination of objective usage data with neuroimaging presents encouraging methodological avenues.[30]
These strategies could enable future studies to progress from correlational links to causal conclusions about how particular platform characteristics and behaviours affect brain development and functioning. Collectively, current evidence underscores social media as a significant environmental context that can activate neural systems associated with reward, attention, emotion, and self-regulation. Although recent results do not back overly simplistic assertions of universal neural damage, they highlight significant connections that justify ongoing scientific investigation. Grasping the relationship between social media and brain plasticity, mental health, and behaviour is crucial due to its significant influence on contemporary social life and its widespread impact during vital developmental stages.

METHODOLOGY:

This study mainly aims to evaluate how social media use impacts attention, mood, sleep, and brain functions associated with lifestyle in people. The objectives of this study includes,

- To evaluate the trends and level of social media engagement, such as typical daily screen duration and regularity of checking notifications.
- To investigate the neurobehavioral impacts of extended social media use, including diminished time perception and changed emotional reactions.
- To outline the demographic features of the study group concerning social media usage.
- To determine the types of social media activities that are engaged in most often.
- To assess the influence of gaming habits, encompassing gaming skill and immediate psychological or emotional responses during, and following gaming.
- To evaluate exposure to adult or explicit online content and its perceived cognitive or emotional impacts.
- To examine the impact of social media on social comparison, self-image, and lifestyle aspirations.
- To examine the link between high screen time and the disruption of healthy routines, such as lack of sleep, omitted meals, and decreased physical activity.
- To investigate the lasting perceived impacts of prolonged screen time on mental concentration, emotional management, and daily performance.

- To evaluate the effects of digital breaks or decreased screen time on attention, mood consistency, and sleep quality.

This study was a **prospective, community based, cross-sectional descriptive study** conducted in a selected area of **Andhra Pradesh, South India**, with a final sample size of **425 individuals** who provided complete information. The study was carried out as a **random survey** during the period from **September 2025 to November 2025**, and participants were selected based on predefined inclusion and exclusion criteria. The **inclusion criteria** were: individuals residing in the selected community during the study period, participants aged **15 years and above**, individuals who actively use at least one social media platform, participants who were able to listen and understand the questionnaire, and individuals who provided informed consent to participate in the study. The **exclusion criteria** were: individuals who do not use social media, individuals who were unwilling or unable to give consent, incomplete or partially filled questionnaires, and participants with known cognitive impairment or severe mental illness that could affect understanding or response accuracy.

RESULTS AND DISCUSSION:

TABLE 1: DEMOGRAPHIC DETAILS.

Age Intervals	**Frequency**	**Percentage**
15–19	104	24.5%
20–24	281	66.1%
25–29	19	4.5%
30–39	09	2.1%
40 and above	12	2.8%
Gender	**Frequency**	**Percentage**
Male	211	49.6%
Female	214	50.4%
Occupation/Status	**Frequency**	**Percentage**
Student	378	88.9%
Working Professional	36	8.5%
Dependents	11	2.6%

The study included a total of 425 participants. The distribution of ages was mainly biased toward younger adults, with most participants falling within the 20–24 years age range (66.1%). Next were participants between the ages of 15 and 19, comprising 24.5% of the sample. Lower percentages were noted in the 25–29 years (4.5%), 40 years and older (2.8%), and 30–39 years (2.1%) age groups.

The distribution of genders among the participants was quite even. Women made up a marginally larger share of the sample (50.4%), whereas men represented 49.6% of those surveyed. Concerning occupational status, the study group primarily consisted of students, making up 88.9% of the participants. In the sample, working professionals made up 8.5%, while dependents accounted for a smaller share at 2.6%.

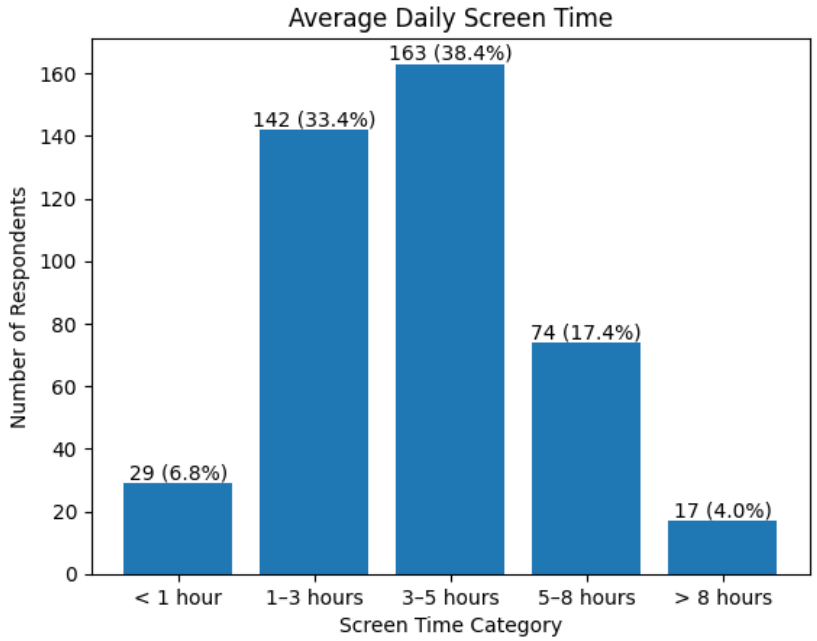

FIGURE 1: DISTRIBUTION OF DAILY SCREEN-TIME PATTERNS

Most respondents use screens for 3–5 hours each day (38.4%), with 1–3 hours following closely (33.4%). A smaller number of participants indicate 5–8 hours of screen time (17.4%), whereas extremely low (<1 hour) and extremely high (>8 hours) usage are the least frequent. In general, moderate screen time is more common, while a lesser number encounter extended usage.

Benjamin Zablotsky et al, carried out research on Daily Screen Usage Among Adolescents in the United States. Only a small percentage of teenagers indicated low screen time, with 3.0% using screens for under 1 hour daily and 6.1% stating 1 hour each day. Approximately one-fifth (17.8%) indicated 2 hours each day, whereas 22.8% dedicated roughly 3 hours daily. Significantly, over 50% of teenagers (50.4%) indicated that they engage in screen-based activities for 4 or more hours each day, suggesting that extended daily screen use is typical rather than unusual. [31]

Our research indicates that moderate screen use is the norm, as most respondents report spending 1–5 hours daily, especially 3–5 hours (38.4%), whereas both very low and very high screen use are rare. Conversely, the research conducted by Zablotsky et al. reveals that U.S. teenagers experience greater overall screen exposure, with more than half (50.4%) spending 4 or more hours daily, while just a minor percentage reports minimal screen time. In comparison to the initial study, this indicates a move towards extended daily screen time among adolescents.

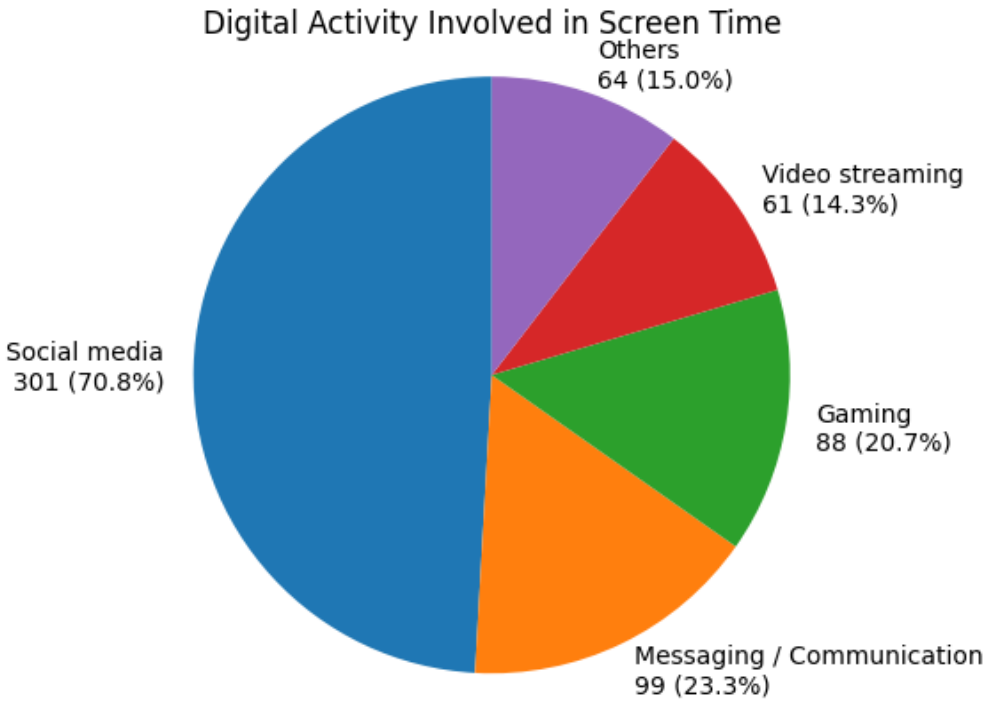

FIGURE 2: DIGITAL ACTIVITY ACCOUNTING FOR SCREEN TIME:

Social media is the leading online activity, representing 70.8% of screen usage. Next comes messaging/communication at 23.3% and gaming at 20.7%. Video streaming 14.3% and additional activities 15.0% make relatively minor contributions. In general, screen usage is primarily influenced by activities focused on social interaction, particularly through social media.

Rosenberg et al., in their research on a Latent Growth Curve Model of Screen Use Patterns, show that screen time is not a uniform behaviour; instead, it comprises various digital activities with different usage trends. Social networking is increasing, gaming declines with age, while both passive and online usage remain constant. These results indicate that

accurately understanding and evaluating screen time necessitates considering the kind of digital activity, as each has a distinct impact on overall screen involvement. (32)

The current research highlights social media as the primary factor influencing screen time, reinforcing Rosenberg et al.'s conclusions that screen engagement is determined by particular digital actions rather than just overall duration. Both studies underscore an increase in social media usage as the primary screen activity, whereas passive and internet-based use stay constant.

TABLE 2: NOTIFICATION CHECK AND TIME IMMERSION FREQUENCY.

Checking Phone Without Notifications	**Frequency**	**Percentage**
Never	46	10.8%
Rarely	106	25%
Sometimes	182	42.8%
Often	43	10.1%
Always	48	11.3%
Time Immersion While Using Phone/Computer	**Frequency**	**Percentage**
Never	64	15%
Rarely	104	24.5%
Sometimes	190	44.7%
Often	37	8.7%
Always	30	7.1%

The table shows that looking at the phone without alerts is a frequent behaviour, as the highest percentage of respondents indicates they do this sometimes (42.8%). Rarely one-quarter (25%) indicated that they rarely engage in this behaviour, while lesser percentages reported doing so often (10.1%) or always (11.3%). Only 10.8% reported that they never look at their phone unless they receive notifications, indicating that frequent phone-checking is common among the majority of participants.

In the research conducted by Meier et al. (2023), teenagers indicated regular phone checking, averaging around 5 checks each hour in their daily routines. The frequency differed significantly between individuals and circumstances. Significantly, increased automatic or habitual use of social media correlated with a greater frequency of phone checking, suggesting that this behaviour typically happens as a routine rather than as a reaction to particular notifications.(33)

In the same way, during our study time, immersion through the use of a phone or computer is often encountered. Almost half of the participants (44.7%) indicated that they occasionally

lost track of time, while rarely one-quarter (24.5%) reported experiencing this infrequently. A smaller number of participants indicated that they often (8.7%) or always (7.1%) experienced immersion, while 15% stated they never lost track of time. In general, the results indicate that moderate degrees of compulsive checking and time investment are common, with a smaller but significant percentage undergoing frequent or ongoing involvement.

Julie Papastamatelou et al, in their research titled 'The Vanishing Hours: Subjective Passage of Time in the Digital Era,' found through validated scales that increased immersion in mobile or computer use caused time to seem as though it was passing more quickly, with participants often losing track of time during regular digital activities. The occurrence of these immersive episodes differed from person to person, with some having them several times daily while others encountered immersion infrequently. [34]

TABLE 3: PATTERN OF GAMING AND BEHAVIOURAL RESPONSES.

Weekly Gaming Duration	**Frequency**	**Percentage**
None	142	33.4%
1-3 hours	170	40%
4-7 hours	62	14.6%
8-14 hours	32	7.5%
>14 hours	19	4.5%
Type of Games Played	**Frequency**	**Percentage**
Action/shooter	93	21.9
Strategy	40	9.4%
Simulation	25	5.9%
Sports	101	23.8%
Casual/puzzle	137	32.2%
Online multiplayer	57	13.4%
Other	82	19.3%
Emotional Reactions During Gaming	**Frequency**	**Percentage**
Never	156	36.7%
Rarely	115	27.1%
Sometimes	113	26.6%
Often	24	5.6%
Always	17	4%
Skipping Meals or Sleep Due to Gaming	**Frequency**	**Percentage**
Never	279	65.6%
Rarely	59	13.9%
Sometimes	68	16%
Often	10	2.4%
Always	09	2.1%
Restlessness or Irritability When Unable to Play	**Frequency**	**Percentage**
Never	224	52.7%
Rarely	78	18.3%
Sometimes	99	23.3%
Often	14	3.3%
Always	10	2.4%

The data shows that the majority of participants partake in moderate or infrequent gaming, with 33.4% stating they do not game at all and 40% dedicating 1–3 hours per week, while just a minor segment played more frequently, like 8–14 hours (7.5%) or exceeding 14 hours (4.5%). In terms of game preferences, casual/puzzle games (32.2%) and sports games (23.8%) were the most favoured, followed by action/shooter (21.9%) and online multiplayer games (13.4%), indicating a preference for approachable and leisurely gaming over competitive.

Emotional engagement while gaming was typically moderate, with many participants indicating they never (36.7%) or rarely (27.1%) felt strong emotional responses, whereas only a tiny percentage experienced these reactions frequently or consistently. Likewise, gaming seldom interfered with everyday activities, as 65.6% never missed meals or sleep because of gaming, and only a small number of participants mentioned doing so frequently or consistently. Symptoms resembling withdrawal, like restlessness or irritability when unable to play, were infrequently reported, with more than half of the respondents (52.7%) indicating they never experienced these feelings.

The results indicate that the sample mostly participates in casual and regulated gaming activities, with minimal emotional or behavioural effects, and that issues related to problematic or excessive gaming are uncommon in this group.

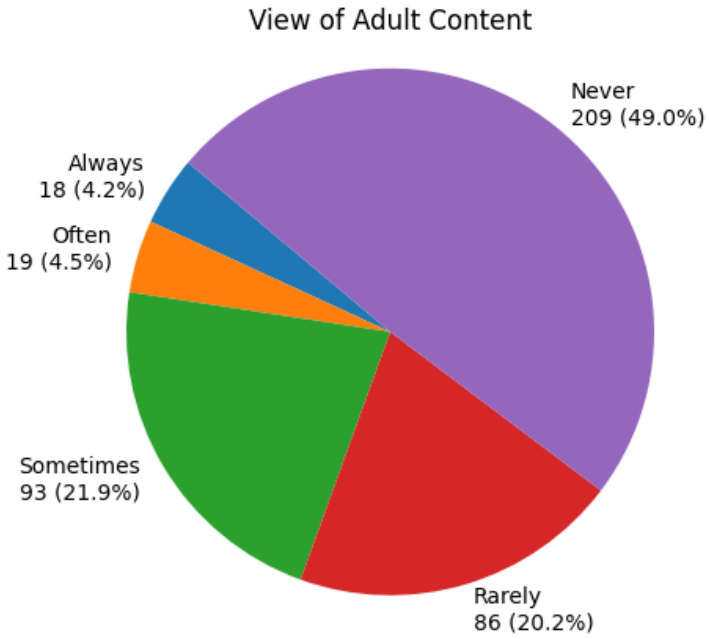

FIGURE 3: VIEW OF ADULT CONTENT

The pie chart shows that nearly half of participants (49%) never consume adult content, whereas a significant percentage reports infrequent exposure, with 21.9% engaging with it sometimes and 20.2% doing so rarely. Conversely, habitual viewing is rare, with only roughly 9% indicating they watch adult content frequently or constantly. In general, the use of adult content in the sample is largely non-existent or rare, with consistent usage confined to a small percentage.

A study conducted by Cody Harper et al, revealed that university students frequently accessed adult content, with men indicating a much higher and more regular usage compared to women, and single students engaging in it more than those in romantic relationships. Significantly, more frequent viewing, particularly daily or greater usage, was closely linked to heightened symptoms of problematic or addictive behaviour. [35]

In contrast to the research by Cody Harper et al., the current results demonstrate a significantly reduced prevalence and frequency of adult content consumption among participants. In the present sample, almost half (49%) indicated they never watch adult content, while most users participate only occasionally or infrequently, with regular use limited to a small percentage (≈9%), indicating primarily limited exposure. In contrast, Harper et al. noted that university students frequently view adult content.

TABLE 4: PSYCHOLOGICAL & LIFESTYLE EFFECTS OF SOCIAL MEDIA USE.

Social media comparison behaviour	**Frequency**	**Percentage**
Never	123	28.9%
Rarely	97	22.8%
Sometimes	151	35.6%
Often	33	7.8%
Always	21	4.9%
Mood Changes After Prolonged Screen Use	**Frequency**	**Percentage**
Never	128	30.1%
Rarely	105	24.7%
Sometimes	142	33.4%
Often	23	5.4%
Always	27	6.4%
Perceived Decline in Attention Span	**Frequency**	**Percentage**
Strongly disagree	45	10.6%
Disagree	94	22.1%
Neutral	138	32.5%
Agree	110	25.9%
Strongly agree	38	8.9%
Use of Digital Media as an Emotional Escape	**Frequency**	**Percentage**

Never	68	16%
Rarely	66	15.5%
Sometimes	167	39.3%
Often	64	15.1%
Always	60	14.1%
Late-Night Screen Use (Past Midnight)	**Frequency**	**Percentage**
Never	106	24.9%
Rarely	115	27.1%
Sometimes	152	35.7%
Often	30	7.1%
Always	22	5.2%

The evidence shows that psychological and behavioural impacts related to social media affect a significant percentage of participants, primarily at moderate levels instead of severe frequencies. It is common to compare oneself on social media, as over one-third (35.6%) occasionally makes such comparisons, while approximately 29% state they never do so, indicating varied engagement trends. Mood alterations following extended screen use are significant, with one-third (33.4%) occasionally encountering mood changes, while approximately 30% state they feel no such effects, suggesting inconsistency in emotional responses. Concerning attention span, almost 35% concur or strongly concur that their focus has diminished, whereas a comparable percentage stays neutral, indicating a perceived cognitive impact that is not universally acknowledged. Digital media is frequently identified as an emotional refuge, with almost 69% utilizing it occasionally, regularly, or constantly, emphasizing its function in alleviating stress or diverting attention. Ultimately, late-night screen usage is prevalent, with nearly half (48%) participating occasionally or frequently after midnight, potentially affecting sleep and overall health. In general, the results indicate moderate yet prevalent psychosocial effects from screen and social media usage, with intense or ongoing impacts confined to a smaller group of participants.

Ghee Kian Koh et al. state in their research that social media usage has varied but mainly adverse psychological and lifestyle impacts, primarily influenced by usage habits. High levels of depression, anxiety, loneliness, and diminished overall well-being are often linked to excessive and passive engagement, frequently fuelled by social comparison and emotional disconnect. These psychological impacts can indirectly affect lifestyle habits, leading to decreased life satisfaction and hindered daily functioning. [36]

Our research reveals infrequent mood fluctuations, comparative behaviours, diminished attention, and late-night usage, suggesting common but mild psychosocial impacts, while Ghee Kian Koh et al. emphasize mainly adverse effects (depression, anxiety, loneliness) associated with excessive and passive consumption. Collectively, the results indicate that the patterns and extent of use influence whether social media results in minor lifestyle disturbances or more significant mental health repercussions.

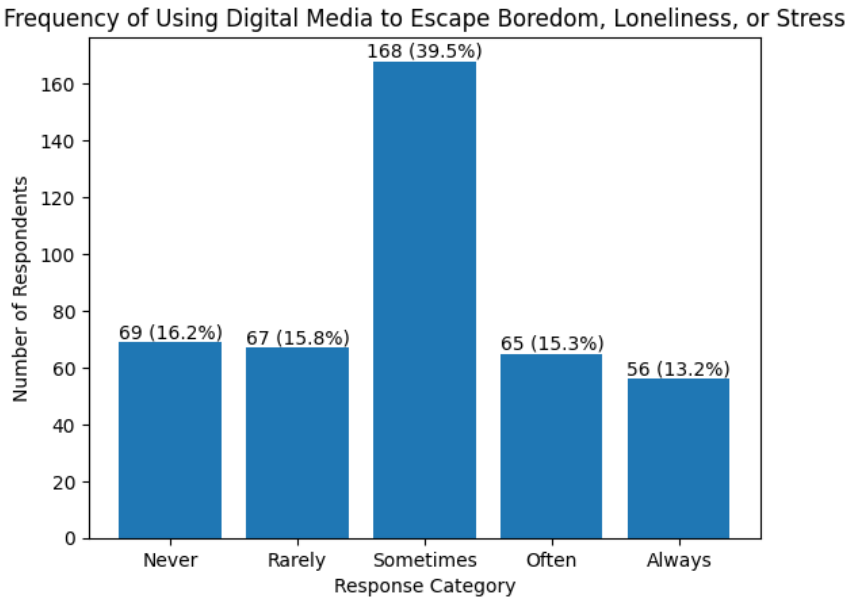

FIGURE 4: FREQUENCY OF UNDERLYING REASONS FOR SOCIAL MEDIA USE

The research indicates that utilizing digital media to alleviate boredom, loneliness, or stress is prevalent, with most participants indicating they partake in this behaviour at least from time to time. The highest percentage (39.5%) indicate that they occasionally use digital media for emotional escape, while an additional 28.5% use it frequently or consistently, showing a notable dependence on digital platforms for coping or diversion. Conversely, roughly one-third of participants seldom or never utilize digital media for this reason, indicating diverse coping methods among individuals while overall emphasizing the significant impact of digital media in emotional regulation.

The research by Stockdale and Coyne shows that turning to social media to alleviate boredom is a prevalent and growing reason, especially during the transition from adolescence to emerging adulthood. Although the article does not provide specific percentage frequencies, it indicates that usage motivated by boredom grows more significant over time and is closely linked with increased social media interaction. [37]

Both studies recognize the avoidance of boredom or negative feelings as a shared reason for using social media, yet they vary in their measurement and interpretation of this behaviour. Your research offers distinct frequency data, indicating that many users utilize emotional-escape methods at least sometimes, with a significant percentage depending on it frequently or consistently, underscoring its importance in daily emotional management.

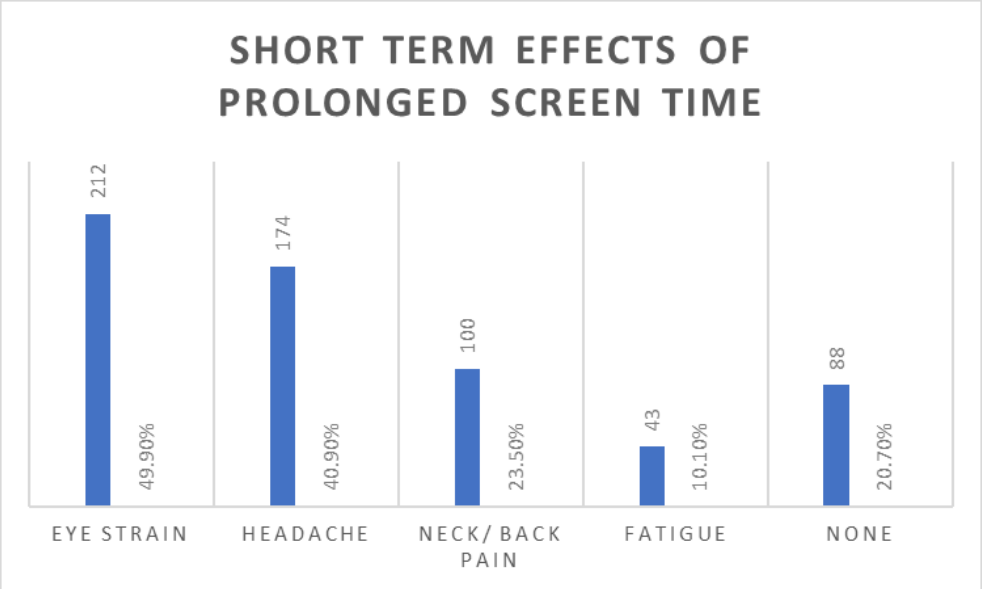

FIGURE 5: SHORT TERM EFFECTS OF PROLONGED SCREEN TIME

The chart shows that immediate physical impacts of extended screen time are very common among those surveyed. Eye strain is the most frequently mentioned symptom, impacting almost half of those surveyed (49.9%), with headaches (40.9%) following closely, indicating considerable visual and mental stress due to prolonged screen time. Neck and back pain (23.5%) and fatigue (10.1%) are also noted, indicating postural and physical weariness linked to screen usage. Only 20.7% indicate the absence of symptoms, underscoring that most encounter at least one negative short-term impact from extended screen exposure.

The study by Amy L Sheppard et al, indicates that extended screen exposure frequently leads to temporary digital eye strain, with symptoms emerging during or soon after using devices. These encompass eye fatigue, dry or irritated eyes, blurred eyesight, headaches, visual tiredness, and light sensitivity, primarily resulting from prolonged visual tasks and decreased blinking. The impacts are extensive, usually brief, but grow more significant with prolonged screen time and insufficient pauses. [38]

Both studies show that the immediate physical impacts of extended screen time are frequent and primarily related to vision. Our research offers quantitative prevalence statistics, indicating that eye strain and headaches are the most common symptoms, alongside musculoskeletal pain, and fatigue, impacting most users. However, the analysis conducted by Sheppard et al. provides a clinical rationale for these effects, outlining how prolonged visual focus and decreased blinking result in digital eye strain and associated symptoms, thus confirming and biologically substantiating the symptom patterns found in your results.

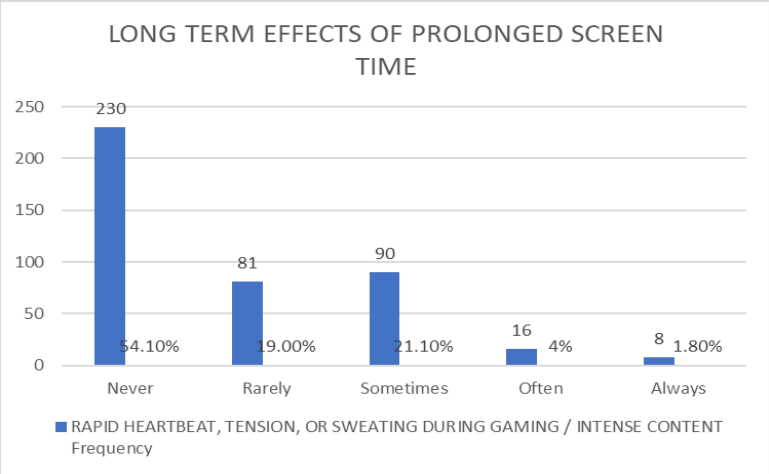

FIGURE 6: LONG TERM EFFECTS OF PROLONGED SCREEN TIME

Research indicates that prolonged screen time leads to long-term physiological stress responses like increased heart rate, tension, or sweating during gaming or intense content, but these are not consistently felt by most participants. A majority of respondents indicated they never (54.1%) or rarely (19.0%) experience these symptoms, suggesting minimal long-term effects for many users. Nonetheless, a significant minority encounters these experiences occasionally (21.1%), with a smaller fraction indicating they feel them frequently or constantly (5.8%), implying that although severe or ongoing stress responses are rare, a portion of users might be susceptible to increased physiological arousal from extended or intense screen time.

The research conducted by Akanksha Job and colleagues examined the lasting effects of extended screen time on university students and discovered that excessive use of devices adversely affects physical and mental well-being. Elevated screen time was linked to eye fatigue, headaches, and bodily discomfort, along with disturbed sleep patterns and heightened stress levels. Extended screen usage diminished time available for rejuvenating activities such

as physical exercise, which further impacted overall wellness. The results emphasize the necessity for approaches to regulate screen time to safeguard students' well-being. [39]

Our research investigates immediate physiological stress triggered by intense screen use, revealing that the majority of users experience little impact, while the Job et al. study indicates long-term physical and mental health consequences among university students resulting from extended screen time. Together, the results suggest that extended screen exposure can lead to specific immediate stress impacts and broad long-term health effects, emphasizing the necessity for tailored and community-wide screen time regulation approaches.

TABLE 5: DISRUPTION OF HEALTHY LIFE STYLE PRACTICES.

Variables	Frequency	Percentage
No change	241	56.7%
Slightly worse	100	23.5%
Significantly worse	39	9.2%
Improved	45	10.6%

The information indicates how participants view alterations in a specific variable (e.g., health, well-being, or performance) as time progresses. Most respondents (56.7%) stated that there was no change, suggesting stability. Approximately 23.5% experienced a minor decline, while 9.2% indicated substantial worsening, highlighting that a lesser percentage encountered significant deterioration. Notably, 10.6% indicated progress, implying that a portion of individuals saw beneficial changes even with the general pattern. In summary, although the majority of participants stayed consistent, a significant minority saw either decline or enhancement.

Prolonged use of social media by teenagers interferes with essential lifestyle behaviours in the research by Alicia Cal-Herrera et al, mainly affecting sleep and eating routines. Intensive use is associated with reduced sleep quality, such as shorter sleep duration, later bedtimes, insomnia, and daytime tiredness, impacting overall health and academic achievement. It additionally impacts poor eating habits, like missing meals, lower intake of fruits and vegetables, and higher consumption of fast food or sugary beverages. These alterations result from the duration of internet usage and exposure to materials that endorse unrealistic standards, emphasizing enduring negative health effects. [40]

Most participants in this study indicated no perceived change over time, suggesting a sense of stability despite ongoing exposure. Conversely, Alicia Cal-Herrera and colleagues state that extended social media usage among teenagers negatively impacts sleep and eating patterns, resulting in harmful health effects. This discrepancy indicates a difference between perceived impacts and quantifiable changes in lifestyle. Nonetheless, the percentage of participants indicating a decline in this study reinforces evidence that prolonged digital engagement can adversely impact health for certain users.

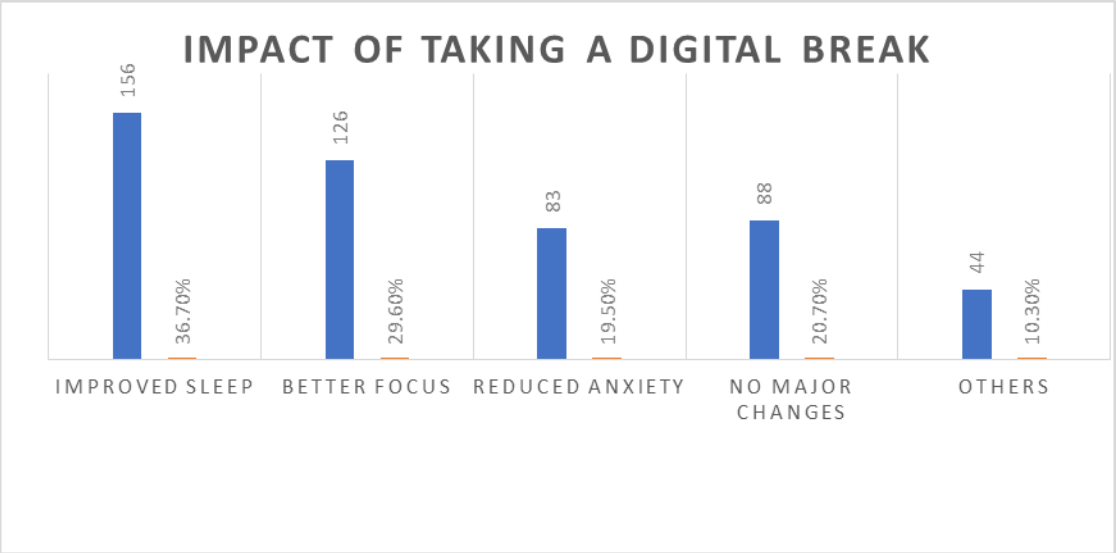

FIGURE 7: OUTCOMES OF DIGITAL DETOX PRACTICES

The chart illustrates how participants viewed the impact of stepping away from digital devices. A significant proportion indicated favourable results, with enhanced sleep (156 respondents, 36.7%) and increased focus (126 respondents, 29.6%) as the most prevalent advantages. A significant share also reported lowered anxiety (83 respondents, 19.5%), suggesting advantages for mental well-being. Nevertheless, some participants indicated no significant changes (88 respondents, 20.7%), implying that for a portion of users, brief digital breaks might not meaningfully impact their wellbeing. A smaller segment experienced different effects (44 respondents, 10.3%), indicating minor or individual-specific results. In summary, stepping away from digital devices seems to positively impact sleep, focus, and anxiety for the majority of participants, although results differ between individuals.

A study conducted by Andrew K. Przybylski et al, revealed that a brief, one-day hiatus from social media did not enhance well-being, positive mood, or daily satisfaction, and in certain instances, slightly diminished feelings of social connection. Nonetheless, wider studies indicate that extended or frequent digital breaks may lower stress, boost sleep quality,

increase focus, and reinforce face-to-face social ties. Consequently, although short breaks might offer minimal advantages, purposeful and prolonged digital detoxes are more likely to enhance mental and emotional well-being. (41)

The initial study indicates that digital breaks frequently enhance sleep, concentration, and lessen anxiety for numerous participants, although a few experienced no difference. Przybylski et al. discovered that one-day breaks from social media minimally impacted well-being and might slightly diminish social connections, yet more extended or frequent breaks present more evident mental health advantages. In general, the effects of digital breaks rely on length, kind, and personal variations.

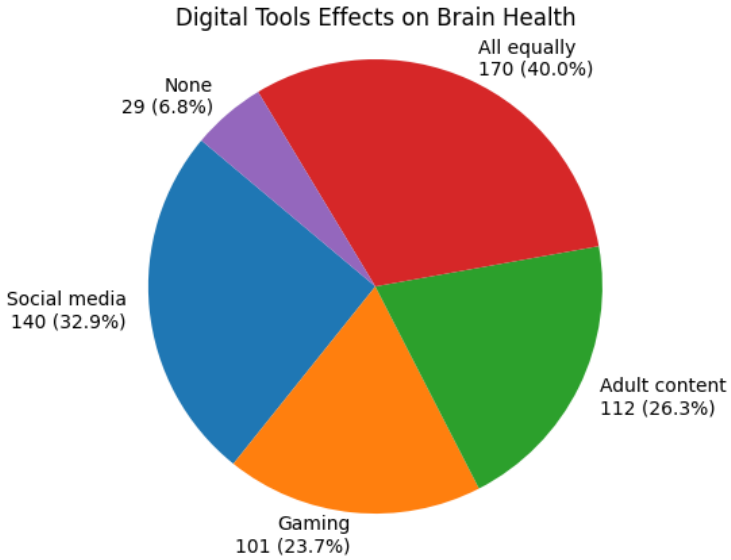

FIGURE 8: DIGITAL TOOL USE TO REGULATE SCREEN TIME

Most participants (more than 90%) think that digital tools affect brain health. Although 40% view all tools as having the same impact on the brain, social media (32.9%) is considered the most personally impactful, with adult content (26.3%) and gaming (23.7%) following. A slight minority (6.8%) believe digital tools have no impact. In general, apprehension regarding cognitive and mental effects is pervasive.

Martin Korte et al, view “the effects of digital tools on brain health” as a change in neural systems driven by plasticity, which can be beneficial, harmful, or indifferent depending on the manner, frequency, and timing of their usage. There is no universal pathology or advantage; rather, digital engagement influences brain development and function in various ways, with the degree and environment affecting whether results enhance cognitive flexibility, hinder language development, or modify emotional processing. (42)

The survey reveals that the majority of participants are worried, pinpointing social media, adult content, and gaming as significant factors, while a small number perceive no impact. Korte et al. describe these effects as context-sensitive neural plasticity, highlighting that results whether favourable, unfavourable, or indifferent are influenced by usage habits, intensity, and timing instead of intrinsic damage.

CONCLUSION:

This community focused research shows that social media and screen-related digital interaction are closely woven into the everyday lives of adolescents and young adults, especially students, where moderate screen exposure is the main usage trend. While extreme or addictive behaviours were rare, regular, and habitual participation was consistently linked to subtle yet broad psychological, behavioural, and lifestyle impacts.

Regularly checking notifications, spending extensive time on devices, emotionally depending on digital platforms, and using screens late at night suggest habits driven by rewards and attention rather than solely practical usage. Although most effects were noted at mild to moderate intensities, a significant number of participants reported mood swings, perceived reductions in focus, behaviours related to social comparison, and sleep disturbances, indicating gradual subclinical effects instead of overt impairment. Immediate physical effects like headaches and eye strain were very common, underscoring that extended screen time has real bodily impacts even without significant psychological symptoms.

Crucially, the results highlight that the effect of digital exposure relies on the nature and quality of involvement. Social media became the primary factor in screen time and perceived cognitive and emotional impacts, while gaming and adult content usage remained restricted and exhibited little behavioural disturbance in this group. The cited advantages of lower screen time especially enhancements in sleep, concentration, and anxiety suggest that behaviour changes and organized digital breaks could provide valuable protective effects.

In general, the findings indicate that social media usage does not cause uniform damage but is linked to ongoing minor disturbances in attention, mood management, sleep, and lifestyle habits. These results emphasize the importance of tailored public health approaches that concentrate on usage habits, timing, and emotional reliance instead of just overall screen time.

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