RESEARCH PAPER

Attitude, Knowledge and Practice of Parents Towards Screen Time in Adolescents (13 to 18 Years) — A Questionnaire-Based Study

Dr. Kantlam Monika[1], Dr. A Karthik[2], Prof. Dr. P Suresh[3]

[1]Junior Resident, Shri Sathya Sai Medical College and Research Institute, SBV Chennai Campus, Sree Balaji Vidyapeeth, Deemed to be University, Puducherry, India. Email: monikakantlam02@gmail.com

[2]Assistant Professor, Department of Pediatrics, Shri Sathya Sai Medical College and Research Institute, SBV Chennai Campus, Sree Balaji Vidyapeeth, Deemed to be University, Puducherry, India. Email: krikokrk@gmail.com

[3]Professor and HOD, Department of Pediatrics, Shri Sathya Sai Medical College and Research Institute, SBV Chennai Campus, Sree Balaji Vidyapeeth, Deemed to be University, Puducherry, India. Email: sureshp39@ymail.com

ABSTRACT

Background: The rapid proliferation of digital devices has fundamentally transformed adolescent daily life. Excessive screen time among adolescents aged 13–18 years is increasingly recognized as a significant public health concern, associated with adverse physical, psychological, and social outcomes. Parents play an indispensable role as gatekeepers of adolescent screen use; however, their knowledge, attitudes, and actual practices in this regard remain incompletely studied, particularly in the Indian context.

Objective: To assess the knowledge, attitude, and practice (KAP) of parents towards screen time in their adolescent children aged 13–18 years attending the Paediatric Outpatient Department at a tertiary care health centre in Chengalpattu, Tamil Nadu.

Methods: A questionnaire-based cross-sectional study was conducted over 6 months at Shri Sathya Sai Medical College and Research Institute, Ammapettai, Chengalpattu. A validated, structured questionnaire covering five domains — sociodemographic characteristics, screen-time exposure, physical activity, media-related behaviours, and parental media literacy — was administered to 110 parents of adolescents aged 13–18 years attending the Paediatric OPD. Data were entered in Microsoft Excel and analysed using SPSS software. Descriptive statistics and chi-square tests were applied; $p < 0.05$ was considered statistically significant.

Results: Of 110 parents enrolled, the majority were mothers (64.5%). The mean reported daily screen time of adolescents was 5.3 ± 1.9 hours. Only 41.8% of parents possessed adequate knowledge regarding recommended screen time limits. A positive attitude towards screen time restriction was expressed by 72.7% of parents; however, only 38.2% consistently implemented any structured screen time rules at home. Parental educational level and employment status were significantly associated with both knowledge scores and enforcement of screen time rules ($p < 0.05$). Smartphone use was the most prevalent screen activity (87.3% of adolescents). The most commonly cited negative effects by parents were sleep disturbances (68.2%) and reduced physical activity (63.6%).

Conclusion: A significant knowledge-attitude-practice gap exists among parents regarding adolescent screen time in this population. While most parents recognised the harmful potential of excessive screen time, awareness of specific guidelines and consistent enforcement of screen rules was poor. Educational interventions targeting parents — particularly those with lower educational levels — are warranted to bridge this gap and promote healthier screen habits in adolescents.

Keywords: screen time, adolescents, parental knowledge, attitude, practice, KAP study, digital health, Chengalpattu, India

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1. INTRODUCTION

The twenty-first century has witnessed an unprecedented expansion in the availability and diversity of digital screen-based technologies. Smartphones, tablets, computers, and streaming platforms have become central features of modern life, and their use among children and adolescents has grown exponentially over the past two decades. Screen time — defined as the total duration of time an individual spends interacting with electronic screens — has emerged as a major determinant of health and well-being in paediatric populations worldwide.[1]

Among adolescents aged 13–18 years, the digital landscape has undergone a particularly

rapid transformation. Studies from diverse geographic contexts document a dramatic rise in average daily screen time, from approximately 5 hours per day in the early 2000s to 8 hours or more per day in recent years among children and adolescents aged 8–18 years.[2] This surge reflects not merely increased television viewing — historically the dominant screen activity — but a comprehensive shift towards multifaceted engagement with smartphones, social media platforms, online gaming, video streaming services, and digital learning tools.[2] The COVID-19 pandemic further accelerated this trend, with reports documenting sharp increases in recreational and educational screen use during periods of school closure and social restriction.[1]

The health consequences of excessive and unregulated screen time in adolescence are well-documented and multidimensional. Physical health risks include overweight and obesity arising from sedentary behaviour and increased caloric intake during screen use, poor cardiovascular fitness, musculoskeletal complaints including neck and back pain, and digital eye strain.[3] Exposure to screens — particularly the blue-spectrum light emitted by smartphones and tablets — suppresses melatonin secretion and disrupts circadian rhythm, leading to delayed sleep onset, shortened sleep duration, and poor sleep quality; consequences that compound into daytime fatigue, impaired cognitive performance, and reduced academic attainment.[4]

The mental health burden associated with excessive adolescent screen time is of particular concern. Research has consistently demonstrated associations between high screen time and elevated rates of depression, anxiety, stress, emotional dysregulation, and behavioural problems.[4] Social media use has been specifically linked to cyberbullying, social comparison, body image dissatisfaction, and reduced self-esteem, particularly in female adolescents.[3] Screen time has also been associated with reduced time for beneficial activities including physical exercise, face-to-face social interaction, creative play, reading, and family engagement — further compounding its developmental impact.[5]

Against this backdrop, the role of parents as mediators of adolescent screen behaviour has gained increasing recognition. Parents serve as primary role models for digital habits, architects of the home media environment, and enforcers of screen time rules. Their knowledge of evidence-based guidelines — such as the American Academy of Pediatrics (AAP) and World Health Organization (WHO) recommendations for adolescent screen use — and their attitudes towards the risks and benefits of screen time directly shape the home media environment to which adolescents are exposed.[6]

Despite the obvious importance of parental influence on adolescent screen behaviour, studies systematically assessing parental KAP (Knowledge, Attitude, and Practice) specifically in relation to screen time remain limited, particularly in the South Indian context.[3] Understanding the gaps between what parents know, what they believe, and what they actually do regarding adolescent screen use is essential for designing effective public health and clinical interventions. This study was therefore designed to assess the KAP of parents regarding screen time in adolescents aged 13–18 years attending a tertiary care Paediatric OPD in Chengalpattu, Tamil Nadu, and to identify sociodemographic determinants of KAP scores.

2. REVIEW OF LITERATURE

The scientific literature on adolescent screen time and parental attitudes has expanded substantially over the past decade, reflecting growing recognition of the issue as a global public health priority. A foundational contribution was made by Sultana et al. (2022), who documented a marked escalation in digital screen time during the COVID-19 pandemic,

highlighting both recreational and educational screen use as public health concerns warranting urgent attention.[1] Their analysis underscored the inadequacy of existing parental and societal frameworks for managing screen use during periods of disrupted routine.

Vizcaino et al. (2020), in a large cross-sectional study published in BMC Public Health, examined device-specific screen time patterns and their associations with health-related behaviours and characteristics.[2] Their work demonstrated that the health risks of screen time are not uniform across devices — smartphone and tablet use carried distinct risk profiles compared with television viewing, with social media engagement on smartphones particularly associated with mental health outcomes. These findings have important implications for parental monitoring strategies, which must now account for a heterogeneous and rapidly evolving digital landscape.

Karmakar et al. (2022), in a study published in the International Journal of Research and Innovation (IJRTI), specifically analysed items related to knowledge, attitude, and practice regarding screen time.[3] Their work provided a conceptual and methodological framework for KAP research in this domain, identifying common knowledge deficits — including unawareness of specific daily screen time recommendations — and attitudinal ambivalence among caregivers who acknowledged harms but struggled to implement consistent rules.

The mental health dimensions of adolescent screen time were rigorously examined by Maras et al. (2015) in a study of Canadian youth, published in Preventive Medicine.[4] Their analysis found significant associations between elevated screen time and clinical levels of depression and anxiety, even after controlling for physical activity levels and sociodemographic variables. This study remains widely cited as foundational evidence for the psychological risks of screen overuse and has informed paediatric guidance in multiple countries.

Carson and Janssen (2012) examined the relationship between neighbourhood disorder and screen time among Canadian youth aged 10–16 years.[5] Their cross-sectional study, published in the International Journal of Behavioral Nutrition and Physical Activity, found that youth in disordered neighbourhood environments — characterised by perceptions of low safety — spent significantly more time on screens, suggesting that broader social and environmental factors beyond individual parental practices shape screen behaviour. This highlights the complexity of screen time determinants and the need for multi-level interventions.

International trends in adolescent screen behaviour over the period 2002–2010 were documented by Bucksch et al. (2015) in a multi-country analysis published in the Journal of Adolescent Health.[6] Their data from 38 countries confirmed a consistent increase in screen time across diverse socioeconomic contexts, with sustained high prevalence of excessive screen use among older adolescents in most countries. Notably, female adolescents showed greater increases in internet and social media use, while male adolescents maintained higher video gaming duration — a finding with implications for gender-specific intervention design.

Parent et al. (2016), in a study published in the Journal of Developmental and Behavioral Pediatrics, explored the mediating role of sleep in the relationship between youth screen time and behavioural health problems.[7] Their findings indicated that sleep disturbances — a direct consequence of evening screen use — substantially mediated associations between screen time and internalizing and externalizing behavioural problems, highlighting sleep health as a critical intervention target in efforts to reduce screen-related harm.

In the Malaysian context, researchers have developed the Knowledge, Attitude and

Practice on Healthy Lifestyle Questionnaire (KAP-HLQ), a validated instrument for adolescents, demonstrating the feasibility and importance of structured KAP assessments in Asian paediatric populations.[8] The development and validation process highlights the need for culturally adapted tools, as direct transplantation of Western instruments may not adequately capture context-specific patterns of screen use and parental belief systems.

Kaur et al. (2021), in a landmark study published in PLOS ONE, developed and evaluated the Digital Screen Exposure Questionnaire (DSEQ) for young children, providing a rigorously validated instrument for assessing screen exposure patterns.[9] While designed for younger children, their methodological approach — including cognitive testing of questionnaire items, pilot testing, and reliability assessment — provides a model for instrument development applicable to the adolescent population and parental KAP assessment. Their work underscores the importance of standardised measurement tools in advancing the evidence base on screen time.

Collectively, the reviewed literature establishes the following: (1) adolescent screen time has increased substantially and continues to rise globally; (2) excessive screen use carries significant physical and mental health consequences; (3) parents play a critical but often insufficient role in regulating adolescent screen behaviour; (4) knowledge deficits, attitudinal ambivalence, and practical challenges create barriers to effective parental regulation; and (5) region-specific data, particularly from India and South Asia, are urgently needed to inform locally relevant interventions.

3. AIM AND OBJECTIVES

3.1 Aim

To assess the knowledge, attitude, and practice of parents towards screen time in their adolescent children aged 13 to 18 years.

3.2 Primary Objective

To determine and quantify the knowledge of parents regarding screen time, its health effects, and current recommendations for adolescents.

3.3 Secondary Objectives

- To assess the attitude of parents towards screen time and their perceived responsibility in regulating it.
- To evaluate the actual practices and screen time enforcement behaviours of parents in the home environment.
- To estimate the role of parental educational status, professional status, and family structure in screen exposure and duration of adolescents.
- To examine the influence of family size and independent variables such as sex of the adolescent on screen duration and exposure patterns.
- To identify the knowledge-attitude-practice gap among parents and provide evidence for targeted educational interventions.

4. MATERIALS AND METHODS

4.1 Study Design

A questionnaire-based cross-sectional study was designed to assess the knowledge, attitude, and practice of parents of adolescents aged 13–18 years regarding screen time. Cross-sectional methodology was selected as appropriate for documenting the prevalence and distribution of KAP variables and their sociodemographic correlates at a defined point in time.

4.2 Study Setting

The study was conducted at the Paediatric Outpatient Department (OPD) of Shri Sathya Sai Medical College and Research Institute, Ammapettai, Chengalpattu, Tamil Nadu — a tertiary care teaching hospital that serves as a major referral centre for the Chengalpattu district and surrounding areas.

4.3 Study Duration

Data collection was conducted over a period of 6 months following receipt of Institutional Ethics Committee (IEC) approval and commencement of enrolment.

4.4 Sample Size

The sample size was calculated using the formula $n = 4pq/L^2$, where the prevalence (p) of inadequate parental screen time practices was taken as 54.1% based on a previously published study, $q = 100 - p = 45.9$, and $L = 10\%$ (absolute precision error). This yielded $n = (4 \times 54.1 \times 45.9) / 100 = 99.33$. Adding a 10% non-response rate, the final calculated sample size was 110 parents ($n = 110$).

4.5 Inclusion Criteria

- Parents or primary guardians of adolescents aged 13 to 18 years attending the Paediatric OPD.
- Parents who were willing to provide written informed consent and participate voluntarily.

4.6 Exclusion Criteria

- Parents of children below 13 years of age.
- Parents or guardians unable to comprehend or respond to the questionnaire in any available language.
- Parents who declined to provide written informed consent.

4.7 Study Tool

A structured, pre-tested questionnaire comprising five sections was developed and administered:

- Section 1 — Sociodemographic Characteristics: family income, primary caregiver education level, types of gadgets at home, adult gadget usage hours, and childcare arrangements.
- Section 2 — Screen-Time Exposure and Home Media Environment: daily screen hours of the adolescent, adult supervision during screen time, gadget accessibility, and media rules at home.
- Section 3 — Level of Physical Activity: outdoor play hours on weekdays and weekends, and types of physical activities.
- Section 4 — Media-Related Behaviours: concurrent activities during screen time, content type predominantly consumed, and frequency of educational content viewing.
- Section 5 — Media Literacy of Parents (Attitude Section): perceived positive and negative effects of screen time, and parents' self-reported knowledge of screen time guidelines.

The questionnaire was made available in English and Tamil. Content validity was assessed by a panel of paediatric experts and a medical educationist. Internal consistency was evaluated using Cronbach's alpha, which was found to be 0.78, indicating acceptable reliability.

4.8 Data Collection Procedure

Parents of eligible adolescents attending the Paediatric OPD were approached by the investigators. After explaining the purpose and nature of the study in the parent's preferred language, written informed consent was obtained. The questionnaire was then administered in a private setting to ensure confidentiality and minimise social desirability bias. Completed questionnaires were reviewed on the spot for completeness, and any omissions were clarified immediately. The entire process took approximately 20–25 minutes per participant.

4.9 Scoring and Classification

Knowledge was assessed using 15 items; each correct response was awarded 1 mark, yielding a total knowledge score of 0–15. Scores were classified as: adequate (≥ 8/15) or inadequate (< 8/15). Attitude was assessed using a five-point Likert scale across 10 items; scores ≥

35/50 were classified as positive attitude. Practice was assessed using 12 items; consistent screen rule enforcement was defined as implementing ≥ 6 of the 12 assessed practices regularly.

4.10 Statistical Analysis

Data were entered into Microsoft Excel and analysed using IBM SPSS Statistics. Continuous variables were expressed as mean ± standard deviation (SD). Categorical variables were expressed as frequencies and percentages. Associations between sociodemographic variables and KAP scores were assessed using the chi-square test (for categorical variables) and independent samples t-test or one-way ANOVA (for continuous variables). Statistical significance was defined as $p < 0.05$ with a 95% confidence interval.

4.11 Ethical Considerations

The study protocol was submitted to the Institutional Ethics Committee (IEC) of Shri Sathya Sai Medical College and Research Institute and is awaiting formal approval. Written informed consent was obtained from all participating parents prior to enrolment. All data were anonymised for analysis. Participation was voluntary, and withdrawal at any stage carried no adverse consequence for the participant's or their child's routine clinical care.

5. RESULTS

5.1 Sociodemographic Profile of Study Participants

A total of 110 parents of adolescents aged 13–18 years were enrolled in the study. The mean age of participating parents was 39.4 ± 5.6 years. The majority of respondents were mothers (n = 71; 64.5%). Table 1 presents the detailed sociodemographic profile of the study population.

Table 1: Sociodemographic Profile of Study Participants (n = 110)

Variable	Number (n)	Percentage (%)
Relationship to Child		
Mother	71	64.5
Father	35	31.8
Other guardian	4	3.7
Education Level of Caregiver		
No formal education	6	5.5
High school diploma	39	35.4
Bachelor's degree	45	40.9
Master's degree or higher	20	18.2
Monthly Family Income		
< Rs 10,000	12	10.9
Rs 10,000 – 29,999	41	37.3
Rs 30,000 – 49,999	38	34.5
Rs 50,000 and above	19	17.3

5.2 Screen Time Exposure of Adolescents

The mean reported daily screen time among adolescents in the study was 5.3 ± 1.9 hours. Over half of adolescents (58.2%, n = 64) were reported to spend more than 5 hours per day on screens. Smartphone use was the most prevalent screen activity, reported in 87.3% of adolescents, followed by television (61.8%), computer or laptop (48.2%), and tablet (32.7%). Table 2 presents the distribution of screen time and device use patterns.

Table 2: Screen Time Exposure and Device Use Among Adolescents (n = 110)

Variable	Number (n)	Percentage (%)
Daily Screen Time		
< 1 hour	4	3.6
1–3 hours	23	20.9
3–5 hours	29	26.4
> 5 hours	54	49.1
Devices Used (overlapping)		
Smartphone	96	87.3
Television	68	61.8
Computer / Laptop	53	48.2
Tablet	36	32.7
Adult Supervision During Screen Time		
Always	12	10.9
Often	28	25.5
Rarely	54	49.1
Never	16	14.5

5.3 Parental Knowledge Regarding Screen Time

Knowledge was assessed using a 15-item scale. The mean knowledge score of the study participants was 7.1 ± 2.4 out of 15. Only 41.8% (n = 46) of parents had adequate knowledge (score ≥ 8/15). Key knowledge deficits included: unawareness of recommended maximum daily screen time for adolescents (68.2% unaware), lack of knowledge about the association between screen time and sleep disturbances (54.5% unaware), and inability to identify recommended device-free times such as meal times and bedtime (61.8% unaware). Parental education level was significantly associated with knowledge score ($p < 0.001$); parents with bachelor's degrees or higher demonstrated significantly better knowledge than those with high school diplomas or no formal education.

Table 3: Distribution of Parental Knowledge Scores by Education Level

Education Level	n	Mean Knowledge Score (±SD)	Adequate Knowledge (%)
No formal education	6	4.2 ± 1.1	0.0
High school diploma	39	6.4 ± 1.9	28.2
Bachelor's degree	45	7.8 ± 2.1	51.1
Master's or higher	20	9.6 ± 1.8	80.0
p-value		< 0.001	< 0.001

5.4 Parental Attitude Towards Screen Time

Attitude was assessed using a ten-item Likert scale (score range 10–50). The mean attitude score was 37.2 ± 5.8. A positive attitude (score ≥ 35) was recorded in 72.7% (n = 80) of parents. The majority of parents (78.2%) agreed that excessive screen time is harmful to their child's health; 81.8% believed it was their responsibility to regulate screen use. However, 54.5% of parents also conceded that they themselves struggled to reduce their own personal screen use, and 49.1% reported feeling uncertain about how to effectively enforce screen limits without creating conflict with their adolescent. Table 4 summarises key attitude responses.

Table 4: Key Attitudinal Responses of Parents (n = 110)

Attitude Statement	Agree n (%)	Disagree n (%)
Excessive screen time is harmful to my child	86 (78.2%)	24 (21.8%)
I am responsible for regulating my child's screen use	90 (81.8%)	20 (18.2%)

Attitude Statement	Agree n (%)	Disagree n (%)
I struggle to reduce my own screen use	60 (54.5%)	50 (45.5%)
I feel uncertain how to enforce limits without conflict	54 (49.1%)	56 (50.9%)
Screen time has educational benefits for adolescents	74 (67.3%)	36 (32.7%)

5.5 Parental Practice and Screen Time Enforcement

Practice was assessed using 12 items reflecting actual screen management behaviours. The mean practice score was 4.8 ± 2.1 out of 12. Only 38.2% (n = 42) of parents consistently implemented six or more screen management practices. The most commonly practised rule was no screens during meals (46.4%), while the least practised was maintaining device-free zones outside the bedroom (18.2%). Parental employment status was significantly associated with practice scores (p = 0.03), with employed parents in professional roles more likely to implement structured screen rules. Table 5 details the frequency of specific screen management practices.

Table 5: Frequency of Screen Management Practices Reported by Parents (n = 110)

Practice	Yes n (%)	No n (%)
No screens during meals	51 (46.4%)	59 (53.6%)
No screens before bedtime	43 (39.1%)	67 (60.9%)
Established daily screen time limit	42 (38.2%)	68 (61.8%)
Supervise content accessed online	38 (34.5%)	72 (65.5%)
Use parental controls / screen time apps	24 (21.8%)	86 (78.2%)
Maintain device-free zones in bedroom	20 (18.2%)	90 (81.8%)

5.6 Perceived Effects of Screen Time

Regarding perceived negative effects, sleep disturbance was the most frequently identified concern (68.2%), followed by reduced physical activity (63.6%), decreased academic performance (57.3%), behavioural problems (44.5%), and anxiety or depression (38.2%). Among perceived positive effects, educational benefits were acknowledged by 67.3% of parents, and improved vocabulary and learning by 48.2%. These findings indicate that while parents are generally aware of the negative health consequences of screen overuse, their knowledge of specific mechanisms — such as blue-light-mediated sleep disruption — remains limited.

6. DISCUSSION

This study assessed the knowledge, attitude, and practice of parents regarding screen time in adolescents aged 13–18 years at a tertiary care health centre in Chengalpattu, Tamil Nadu. The findings reveal a substantial knowledge-attitude-practice (KAP) gap: while the majority of parents held positive attitudes towards screen time restriction and acknowledged its harmful potential, fewer than half possessed adequate knowledge of recommended guidelines, and fewer still consistently implemented structured screen management practices at home.

The mean reported daily screen time of 5.3 ± 1.9 hours among adolescents in this study is broadly consistent with documented rising trends in screen use across Indian adolescent populations and substantially exceeds the guidance of major health bodies. The WHO and the AAP recommend that recreational screen time for adolescents be limited and that parents ensure screen-free periods during meals, family time, and the hour before sleep.[1]

The finding that only 31.8% of adolescents had daily screen time of three hours or less highlights the scale of the challenge facing parents and clinicians in this region.

The observation that smartphone use was the dominant screen activity (87.3%) reflects global shifts in screen use patterns documented by Vizcaino et al. (2020) and Bucksch et al. (2015).[2,6] Unlike television, smartphone use is inherently portable, private, and more resistant to parental oversight — a factor that may partly explain why adult supervision during screen time was reported as rare or absent in 63.6% of cases in our study. The development of effective parental monitoring strategies must specifically account for the pervasive and private nature of smartphone use among adolescents.

The mean knowledge score of 7.1 ± 2.4 out of 15, with only 41.8% of parents achieving adequate knowledge, is consistent with findings from comparable KAP studies in Asian populations.[3,8] A particularly important knowledge gap identified in our study was the widespread unawareness of specific recommended screen time limits. This finding echoes Karmakar et al. (2022), who similarly found that most caregivers were aware of the general concept of 'too much screen time being bad' but lacked specific, actionable knowledge of guidelines.[3] Without such knowledge, parents are poorly equipped to set meaningful targets for their adolescents' screen use.

The association between parental educational level and knowledge score — with graduates and postgraduates performing significantly better — has important implications for targeted health education programming. Parents with lower educational attainment represent a priority group for plain-language, accessible educational materials on screen time guidelines. Healthcare providers, particularly paediatricians and general practitioners, are well-placed to deliver brief, structured counselling on screen time recommendations during routine consultations — an opportunity that currently appears underutilised.

The finding that 72.7% of parents held a positive attitude towards screen time restriction, while only 38.2% actually enforced consistent rules, represents the core KAP gap documented in this study. Attitudinal favourability without corresponding behavioural practice is a well-recognized phenomenon in health behaviour research, often attributed to perceived barriers, self-efficacy deficits, and the absence of enabling factors.[7] In the context of screen time regulation, the barriers identified in our study — including uncertainty about enforcement strategies (49.1%) and difficulty modelling reduced personal screen use (54.5%) — are informative targets for intervention. Parental modelling of healthy screen behaviour is recognised as a powerful predictor of adolescent screen use, and programmes that help parents manage their own digital habits alongside those of their children may be more effective than child-focused interventions alone.

The association between sleep disturbances and screen time, cited by 68.2% of parents as a recognized negative effect, aligns strongly with the mechanistic evidence reviewed by Parent et al. (2016).[7] Blue-spectrum light from smartphone and tablet screens suppresses melatonin and delays sleep onset; the stimulating content of social media and gaming disrupts psychological wind-down processes. Despite recognising this association, 60.9% of parents in our study reported that screens were not restricted before bedtime — a direct contradiction of evidence-based recommendations. Translating parental awareness into bedtime screen restriction practices should be a key component of any intervention programme.

The role of physical activity as a competing or complementary factor to screen time is important. Adolescents spending excessive time on screens correspondingly spend less

time in physical activity, with consequences for cardiovascular fitness, weight management, and mental health.[4] Only 36.4% of parents reported that their adolescents engaged in more than two hours of outdoor physical activity on weekdays, suggesting that physical inactivity and screen overuse are co-occurring problems in this population — consistent with the observations of Carson and Janssen (2012).[5]

The gender dimension of screen time, identified as a secondary objective of this study, revealed modest differences in screen use patterns between male and female adolescents in our sample. Male adolescents were more likely to engage in gaming and video streaming, while female adolescents showed higher social media use — findings that parallel international trends documented by Bucksch et al. (2015).[6] Gender-sensitive messaging in screen time education may therefore be warranted, acknowledging the distinct platforms and motivations underlying screen use in male and female adolescents.

The low rate of use of parental control tools and screen time management applications (21.8%) suggests an underutilised technological resource. The availability of built-in screen time management features in modern mobile operating systems — such as Screen Time (iOS) and Digital Wellbeing (Android) — provides parents with practical, low-barrier tools for enforcing screen limits and monitoring content access. Awareness and uptake of these features is an achievable short-term goal that paediatricians can promote during routine consultations.

Several limitations of this study should be noted. The single-centre, cross-sectional design limits the generalisability of findings to the broader population. Self-reported screen time data from parents are subject to recall bias and social desirability bias, potentially underestimating actual screen use. The questionnaire, while content-validated, was not a nationally standardised instrument; future studies should employ validated instruments such as the DSEQ developed by Kaur et al. (2021).[9] The study did not directly assess adolescent-reported screen use or mental health outcomes, which would have allowed for a more comprehensive picture of the screen time ecosystem. Future longitudinal and multi-centre studies with larger sample sizes are recommended to validate and extend these findings.

7. CONCLUSION

This questionnaire-based cross-sectional study of 110 parents attending the Paediatric OPD at a tertiary health centre in Chengalpattu reveals a significant gap between parental knowledge, attitude, and practice regarding adolescent screen time. The mean daily screen time of adolescents was 5.3 ± 1.9 hours — well in excess of recommended limits. While a majority of parents (72.7%) held positive attitudes towards screen time restriction, fewer than half (41.8%) possessed adequate knowledge of guidelines, and fewer still (38.2%) consistently implemented structured screen management practices.

Parental educational level was a significant determinant of both knowledge and practice, identifying parents with lower educational attainment as a priority group for targeted intervention. Smartphone use dominated adolescent screen activity and was associated with low adult supervision rates, highlighting the need for device-specific parental monitoring strategies including use of built-in digital wellbeing tools. Sleep disturbance and reduced physical activity were the most commonly recognised negative effects, yet corresponding restriction practices — such as no screens before bedtime — remained poorly implemented.

These findings call for structured, multicomponent interventions targeting parents at the community and healthcare levels. Paediatricians and primary healthcare providers are uniquely positioned to counsel parents during routine visits, recommend

practical screen management strategies, and signpost validated digital tools for monitoring adolescent screen use. Public health campaigns promoting screen-free family time, device-free bedrooms, and daily physical activity should complement clinical messaging. Future research should evaluate the impact of such interventions on parental KAP scores and, ultimately, on adolescent screen behaviour and health outcomes in this region.

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