

Original Research

Excessive Screen Time and Its Association with Psychological Health among Adolescents in Galle Educational Division, Southern, Sri Lanka

Palihawatta PKTP*, Wickramarachchi BI

Department of Nursing, Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka

Received: 23/12/2025

Accepted: 02/06/2026

Available Online: 21/07/2026

Abstract

The rise in excessive screen time and addictive behaviour among adolescents is a growing concern that significantly affect their psychological well-being. Identifying the extent of excessive screen time and its association with psychological problems is crucial for developing effective policies. A descriptive cross-sectional study was conducted among 420 schoolchildren aged 12-16 from selected schools within the Galle Educational Division, using a stratified multistage cluster sampling to assess the prevalence of excessive screen time and its association to the psychological health among adolescents in the Educational Division of Southern, Sri Lanka. A pretested, self-administered questionnaire was used to assess the addictive behaviour. Depression Anxiety Stress Scale - Youth 21 (DASS Y-21) was used to assess the severity of depression, anxiety, and stress symptoms. Data were analysed using SPSS 25.0, and the Chi-square test, and binary logistic regression were performed. Of the sample, 39.6% used screen devices for more than the recommended 2 hours, except for educational purposes. Smartphones (20.6%) and television (25.5%) were the most frequently used devices. The majority (45.1%) of the participants indicated that they routinely check their device screens in the absence of any incoming notifications, while 38.9% of participants reported increased screen time, and 27.7% reported constantly feeling an urge to use them. Mother's occupation ($p=0.05$), parental screen devices usage ($p=0.01$), the availability of television ($p=0.01$), and the use of screen devices while eating ($p=0.001$) were associated with excessive screen time. Among the participants, 23.4% had symptoms of severe depression, 18% had severe anxiety, and 19.8% had symptoms of severe stress. Excessive screen usage is significantly associated with depression ($p=0.028$), anxiety ($p=0.048$), and stress ($p=0.002$) among adolescents. Excessive screen time, addictive behaviour and psychological problems are substantially prevalent among adolescents. Awareness, behavioural modification intervention, and balanced screen usage are crucial for promoting their well-being.

***Corresponding author:**

Palihawatta PKTP

Email: pula97thinupa@gmail.com

 <https://orcid.org/0009-0004-3843-221X>

Keywords: *Adolescents, Addictive behaviour, Excessive screen usage, Psychological impact*

Introduction

Extensive screen use, including smartphones, computers, tablets, and televisions, is often operationally defined in literature as recreational screen time exceeding two hours per day, excluding educational activities [1]. This high exposure to screen time has a potential risk of developing problematic screen usage. Problematic screen usage is defined as a person's inability to control the use of screen devices despite their harmful consequences [2]. It is also referred to as technology addiction, digital addiction, describing obsessive, unhealthy screen use.

Over the past decades, there have been rapid behavioural trends among adolescents, including unprecedented changes in increasing screen use. The COVID-19 pandemic, the availability and accessibility of digital devices, and the excessive use of social media, online purchasing, online learning, and digital entertainment further accelerated this trend. Teens are more susceptible to excessive screen usage due to parental, peer, and social influences. Adolescents often suffer in social interactions, physical health, academic performance, and overall well-being because of this [3]. According to the existing research, the prevalence of problematic screen addiction usage among adolescents globally is estimated to be 26.9%, with smartphone use being the most associated device [4]. However, currently, there has been limited reported data on the prevalence of excessive screen time usage specifically among adolescents in Sri Lanka.

Several studies have been conducted in the South Asian region to study the level of screen

addiction among adolescents. A cross-sectional survey done in India reported 10.69% of technology addiction, and it was indicated that almost one in ten adolescents had mobile addiction [5]. Karnataka [6]. Another study conducted in China found that 33.3% addicted to the internet and revealed that female gender, age, depression, and stress were all significantly correlated with Internet addiction [7].

Excessive screen usage and screen addictive behaviours cause many psychological consequences among adolescents. Depression is a significant public health concern and a common health problem. Adolescents are more prone to have psychological disorders like depression, anxiety, and stress. Generally, depression is linked with stress, and adolescents are more prone to use screen devices to reduce their stress. According to the previous studies [8,9,10], overall screen time has been linked to depression in adolescents, and a nonlinear dose-response relationship between depressive symptoms and overall screen time was discovered in adolescents who used digital media for more than two hours per day. Some research studies revealed that adolescents who were addicted to the internet had high rates of psychiatric comorbidity, particularly behavioural, anxiety, and mood disorders [11]. A cross-sectional study conducted among adolescents in South Karnataka found that 3.9% were addicted to screens. Furthermore, males showed a higher prevalence of addiction than females, as they have been addicted to online gaming. Also, the same study reported that adolescents with probable depression were five times more likely

to be addicted to screens than those who do not have depression [2].

In Sri Lanka, there has been a significant rise in the number of adolescents seeking help from child and adolescent mental health services for issues related to excessive screen use, and many complaints from teachers and parents about this issue [12]. The island-wide programme has been launched and activated through the Medical Officer of Health office (MOH), in collaboration with the educational ministry, to support vulnerable adolescents and prevent addiction through educational and awareness programmes. Recently, the government of Sri Lanka issued policy recommendations to discourage children from using social media. Despite all these implications, the problem remained unchanged, with evidence of victim children present before psychological help, and showing poor performance in their education.

There are a few studies conducted in the Sri Lankan context to assess the gravity of excessive screen usage and its association with the psychological health of adolescents. Policymakers and health professionals require adequate evidence-based information to implement sustainable programmes to address this at the population level. Therefore, this study was conducted to address this gap, and it aimed to assess the prevalence of excessive screen usage and its association in psychological health of adolescents in the Galle educational division, Sri Lanka.

Methods

A descriptive cross-sectional study was conducted involving 420 secondary-level school children in the Galle educational division. Both male and female adolescents at the age of 12 - 16 years were interviewed. Six randomly selected schools in the Galle Educational Division, including one girls' school, one boys' school, and four mixed schools, were used for the data collection. The sample size was calculated based on an estimated 68% prevalence of psychological problems among adolescents, drawing on previous literature. A 420-sample was considered, adding a 10% non-response rate to the calculated sample size.

Selection criteria

Both male and female school children from selected schools in the Galle educational division, aged 12 - 16 years (grades 7 - 11), who can understand English or Sinhala, were considered for inclusion. Students who are absent during the data recruitment period (long-term absence due to any medical issues), and those who are getting treatment for depression, anxiety, or have a significant disease condition, were excluded from the study.

Study instruments

A multi-sectioned questionnaire was used as the study instrument. This consisted of four parts, including demographic data, questions to assess excessive screen usage, screen addictive behaviour, influencing factors for excessive screen usage, and psychological problems experienced by the adolescents. Usage of any screen device for more than the recommended 2

hours for recreational activities, except for educational purposes, was used to assess excessive screen usage among the adolescents. A self-developed 5-point Likert scale comprising 13 questions was used to identify addictive behaviour after reliability and pretesting the questionnaire (Cronbach's Alpha reliability was 0.874). The severity of symptoms of depression, anxiety, and stress were assessed using DASS-Y 21, which is a validated screening instrument to assess adolescents, and which consists of 21 items [13]. The tool was cross-culturally adopted for use in the Sri Lankan context, with pretesting, and it demonstrated good internal consistency (Cronbach's Alpha reliability was 0.904). This scale gives the level of depression, stress, and anxiety as normal, mild, moderate, severe, and extremely severe.

Data collection procedure

Data collection was done after obtaining institutional permission for the study. Six out of thirty-one schools were purposefully selected as planned, and predetermined inclusion and exclusion criteria were considered when recruiting the samples. Participants for the study were selected randomly through a multi-stage cluster sampling. Information was given to both participants and parents, and written consent was obtained from parents and children. They were informed of the dates and times for the data collection. Data collection continued without disturbing their academic work, and students were given only 20 minutes to complete the questionnaire.

Data analysis

Data were analysed using SPSS version 25.0. Missing values of the categorical data were replaced with the mode. The prevalence of excessive screen usage and addictive behaviour were presented as frequencies and percentages. The association between influencing factors for excessive screen usage was tested using the Chi-square test. Binary logistic regression was performed to determine the likelihood of psychological consequences for excessive screen usage, and adjusted odds ratios with 95% confidence intervals (CIs) were obtained. A *p*-value of 0.05 was considered statistically significant for all analyses.

Results

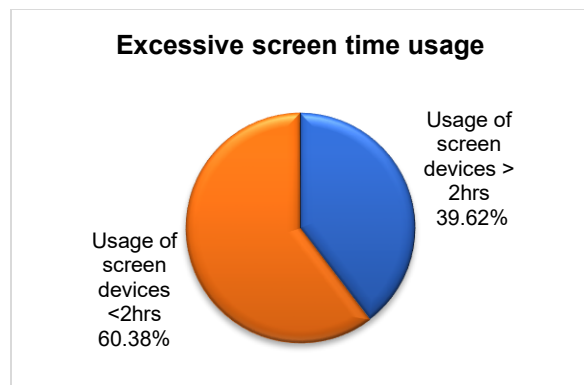
A total of 420 participants were surveyed, with a response rate of 99.7% (n=419). Among them, the majority were Sinhalese (81.1%), and 56.6% were males. Age distribution among the participants was: 12 years old (17.7%), 13 years old (18.1%), 14 years old (20.5%), 15 years old (22%), and 16 years old (21.7%). Adolescents aged 15 years (25.3%) and 16 years (25.3%) were predisposed to excessive screen usage compared to others.

Excessive screen usage

The prevalence of excessive screen usage was 39.6%. When considering the screen devices, as shown in Table 1, 3.6% used computers, 4.8% used laptops/tablets, 20.6% used smartphones, and 25.5% used television (>2hrs).

Table 1 Descriptive statistics for usage of each screen device for more than 2 hours

Variables	n	%
Use of computers	15	3.6%
Use of laptops/tablets	20	4.8%
Use of smartphone	86	20.6%
Use of television	107	25.5%

**Figure 1** Distribution of adolescents by daily recreational screen time (≤ 2 hours and > 2 hours)

Screen addictive behaviour

As illustrated in Table 2, 45.1% checked their device screens without an incoming notification, while 38.9% reported increased screen time. 32.2% used the devices without a specific task, and 27.7% reported feeling a constant urge to use them. Additionally, 21% reported that they need to turn on the television even though they have not used it.

Table 2 Screen addictive behaviour of the participants (n=419)

Statements	n (%)
I spend too much time with any of the screens	103 (24.6)
I often use screen devices soon after waking up (while staying in bed)	43 (10.2)

I often use screen devices before going to sleep (while staying in bed)	81 (19.4)
I cannot stop using these devices.	79 (18.9)
The time I spend has gradually increased.	163 (38.9)
I used to use these devices even though I did not have a specific task with them	135 (32.2)
Even if I do not get any message, I check the screens (phone, tablet, etc.).	189 (45.1)
I constantly feel an urge to use some devices	116 (27.7)
Even if I do not watch TV, I still want to switch it on.	88 (21.0)
Even if I try to control or limit screen use, I cannot do that	58 (13.8)
I feel like I do not have enough time for academic work due to the constant use of those devices	79 (18.9)
I often get angry when someone suggests me to reduce/stop using screen devices.	80 (19.1)

Influencing factors for excessive screen usage

Table 3 shows that the factors related to the mother's occupation ($p=0.05$), television availability ($p=0.01$), screen device use while eating ($p=0.001$), and parental screen device use ($p=0.01$) were significantly associated with excessive screen usage.

Association with psychological status

Table 4 demonstrated that depression, anxiety, and stress were associated with excessive screen usage among the adolescents ($p=0.028, 0.048, 0.002$, respectively).

Predictors of excessive screen time usage and psychological health

According to table 5, adolescents with high screen time were significantly more likely to experience depressive symptoms compared to

those with low screen time (OR=1.240, $p=0.003$, 95% C.I.=1.074-1.431)). Similarly, high screen time was associated with increased odds of anxiety (OR=1.241, $p=0.005$, 95% C.I.=1.069-1.441) and stress (OR=1.383, $p=0.000$, 95% C.I.=1.174-1.628).

Table 3 Association of the influencing factors with excessive screen usage (n=419)

Variables		Excessive screen usage		p value
		No n (%)	Yes n (%)	
Ethnicity	Sinhalese	203 (59.7)	137 (40.3)	0.557
	Muslims	50 (63.3)	29 (36.7)	
Gender	Male	144 (60.8)	93 (39.2)	0.857
	Female	109 (59.9)	73 (40.1)	
No of family members	3-5	67 (63.3)	97 (36.7)	0.276
	6-8	82 (55.8)	65 (44.2)	
	>9	4 (50)	4 (50)	
Occupation of the father	Government job	57 (66.3)	29 (33.7)	0.208
	Private job	80 (57.1)	60 (42.9)	
	Own job	107 (61.1)	68 (38.9)	
	Abroad	9 (50)	9 (50)	
Occupation of the Mother	No job	178 (57.1%)	134(42.9%)	0.050
	Government job	46 (76.7%)	14 (23.3%)	
	Private job	20 (66.7%)	10 (33.3%)	
	Own job	7 (58.3%)	5 (41.7%)	
	Abroad	2 (40%)	3 (60%)	
Educational level of the mother	Primary education	6 (46.1)	7 (53.8)	0.301
	Secondary education	121 (57.9)	88 (42.1)	
	Tertiary education	126 (64)	71 (36)	
Educational level of father	Primary education	7 (38.8)	11 (61.1)	0.196
	Secondary education	135 (60)	90 (40)	
	Tertiary education	11 (63.1)	65 (36.9)	
Family Income (LKR)	Poor (<50,000)	70 (65.4)	37 (34.6)	0.217
	Satisfactory (>50,000)	183 (58.7)	129 (41.3)	
Place of living	Home	243 (60.6)	158 (39.4)	0.219
	Other	10 (55.6%)	8 (44.4%)	
Participation in online learning	Yes	63 (60.6)	41 (39.4)	0.963
	No	190 (60.3)	125 (39.7)	
Use of television	Yes	194 (55.7%)	154 (44.3%)	0.01
	No	59 (83.1%)	12 (16.9%)	
Use of computers	Yes	80 (55.9%)	63 (44.1%)	0.181
	No	173 (62.7%)	103 (37.3%)	
Use of laptops	Yes	83 (54.6%)	69 (45.4%)	0.068
	No	170 (63.7%)	97 (36.3%)	
Use of smartphones	Yes	233 (59.3%)	160 (40.7%)	0.075
	No	20 (76.9%)	6 (23.1%)	

Use of tablets	Yes	29 (52.7%)	26 (47.3%)	0.213
	No	224 (61.5%)	140 (38.5%)	
Parental usage of devices	Yes	147 (53.1)	130 (46.9)	0.01
	No	106 (74.6)	36 (25.4)	
Use of screen devices when eating	Yes	86 (50.0)	86 (50.0)	0.001
	No	164 (68.0)	77 (32.0)	
	Sometimes	3 (50.0)	3 (50.0)	

Note: *p* is from Pearson's Chi-square test that tested the association between influencing factors with excessive screen usage

Table 4 Association between excessive screen usage with depression, anxiety, and stress

Psychological status		Excessive screen usage		<i>p</i> value
		Yes n (%)	No n (%)	
Depression	Normal	68.1 (113)	79.8 (202)	0.028
	Moderate	8.4 (14)	7.5 (19)	
	Severe	12 (20)	7.1 (18)	
	Extremely severe	11.4 (19)	5.5 (14)	
Anxiety	Normal	52.4 (87)	67.0 (170)	0.048
	Mild	11.4 (19)	8.3 (21)	
	Moderate	18.1 (30)	13.4 (34)	
	Severe	7.8 (13)	4.7 (12)	
	Extremely severe	10.2 (17)	6.3 (16)	
Stress	Normal	50.0 (83)	66.8 (169)	0.002
	Mild	14.5 (24)	13.0 (33)	
	Moderate	15.7 (26)	10.3 (26)	
	Severe	12.0 (20)	7.9 (20)	
	Extremely severe	7.8 (13)	2.0 (5)	

Table 5 Logistic regression model of predictors (n=419)

Predictors	OR (95% CI)	<i>p</i> Value
Depression	0.215 (1.074-1.431)	0.003
Anxiety	0.216 (1.069-1.441)	0.005
Stress	0.324 (1.174-1.628)	0.000
X ²	8.710	
H-L goodness of fit	0.900	
-2 Log	553.950	

²Note: H-L GF-Hosmer – Lemeshow goodness of fit statistics, X²-Chi-square, -2log=-2log likelihood <0.05

Discussion

This study was conducted to assess the prevalence of excessive screen usage, addictive behaviour, and its associated psychological problems among adolescents in Galle Educational Division, Southern Sri Lanka. The findings of the study revealed that higher screen usage among the 15 - 16-year-old category, and parental screen usage and psychological status on depression, anxiety, and stress are associated with excessive screen usage among adolescents.

This study provided a prevalence of 39.6% excessive screen usage, which predominantly affects the 15-16-year age category. Similar findings were reported in several studies, which coincide with the present study reported 39.6%, and 24.4% prevalence of high screen usage in the same age category [3,14]. This may happen naturally due to involvement with their peers' social contacts through screen devices. Biological, socio-environmental, emotional, and psychological factors largely influence decision-making in this age category. As a recent Sri Lankan study revealed, a considerable number of (41.4%) community of overweight and obese teenagers (aged 10 to 14) reported having a higher level of dependence on technology, due to physical appearance, which proves that the teenagers' psychological influences on addictive behaviour [15]. Additionally, teenagers prefer mobile phones as multi-tasking devices, and they are readily accessible across different socio-economic groups. They are also highly attracted to technological devices due to their innovative nature. However, in contrast to the current study, some studies reported prevalence rates of 3.9% to 13.1% across their studies [2,5,15,16] which found that results variation due to social background and different sample sizes and survey times utilized by those studies followed different methodologies. In general, it was revealed that the 15 to 16-year-old age category needs more attention and support for controlling their addictive behaviour, and further studies are recommended within the different teenage categories, covering different socio-economic and geographical strata, to propose an actual

prevalence of screen addiction among this population group.

Besides, parental screen usage is influential for adolescents screening addictive behaviour as they purposefully mimic their parents. This study found that parental screen usage is significantly associated with children's screen addiction. Previous studies consistently support this finding [16]. The current study findings are in line with an Asian study conducted in China [17], which emphasized that parents are more focused on their screens and neglecting their children. Teenagers who have modelling behaviour mostly learn by observing their parents. If parents are always on their phones, children learn it as normal and desirable. Parents should be good role models to their children by limiting their own screen time and staying away from screens during parenting time to expect good results.

Socio-economic status is highly influential on addictive behaviour among teenagers [18]. However, the current study findings are not supported with the above previous literature findings. Recent Indian studies have revealed that the majority of the lower or lower-middle class, who were from nuclear households, were mainly affected by screen addiction[2,19]. Moreover, male students who live in rural regions and use smartphones were more prone to screen addiction [20]. The ages of 15-16 were the most significant age groups, and there is a piece of evidence that this risk is increased by indicators of lower socioeconomic position, such as lower mother education and single-parent households [3,21]. Parents with low socioeconomic status have lower digital literacy, leading to less supervision of the children's screen use.

Additionally, children with limited social interactions have fewer alternatives and are more vulnerable to addiction. Social pressure, bullying, and negative social comparison make them feel more cornered in the society, leading to excessive screen use. Further studies are required to determine predisposing factors for screen addiction among teenagers in different socio-economic groups.

This study assessed psychological status, including depression, anxiety, and stress, among the study's population, and found that a considerable proportion of the adolescents were experiencing moderate to severe depression, anxiety, and stress. Globally, a substantial rate of adolescents is suffering from the above psychological problems [22], often linked with the socio-economic disparities, unrealistic future goals, self-esteem issues, and maladaptive behaviours [23]. The current study findings show that there is a strong and significant association between the above-mentioned psychological status and excessive screen usage, similar to the previous studies. Several studies have shown that a moderately favourable connection exists between screen time and the severity of depression, anxiety, and stress symptoms [24,25]. Besides, anxiety was significantly higher in students who used the internet for texting, entertainment, and news [7]. Some of the studies found that Boys who played video games for 6 or more hours had higher anxiety symptoms ($p<.05$), with a large effect size ($OR=5.12$, 95% $CI: 1.56-17.44$). Social movement restrictions, such as those during COVID-19, also significantly affect psychological status by limiting face-to-face interactions [26]. Overall, screen overuse

reduces in-person social interactions and leads to social isolation, which ultimately contributes to psychological imbalance.

As shown in the current study and the previous studies, a substantial proportion of adolescents are reported to have depression, anxiety, and stress [7]. Adolescents experiencing fluctuating moods, and some teenagers are unable to manage them, leading to stress, anxiety, and ultimately to depression. These psychological situations forced them to adopt alternative solutions. Nowadays, teenagers choose screens as an alternative, and they are prone to excessive screen use. According to the current study, anxiety predicts a 1.1 times likelihood of getting addicted to the screen in adolescents. Finally, adolescents with psychological disturbances are getting addicted to screens, and those who are addicted are also more prone to developing psychological issues. However, the current study is a cross-sectional survey, which is limited in its ability to predict causal factors influencing screen addiction. It is suggested that conducting correlational studies to determine the causative factors will disclose the real picture of screen addiction among adolescents in Sri Lanka.

Limitations

A national-level sample was required to generalize the findings, as this study was limited to the specific geographic location.

Conclusion

Excessive screen usage among adolescents is a significant issue. The parental background, availability of screen devices, and unhealthy eating behaviours were found to be the vital

determinants of excessive screen usage. Also, it was evident that there were some psychological consequences associated with excessive screen usage. On the other hand, the psychological status of the adolescent might lead them to spend more time in front of screens. Therefore, it is strongly recommended to provide ongoing psychological support to adolescents, including mental health screening, counselling services, and psychological treatment. It also recommended conducting awareness programs on excessive screen usage and its consequences for both parents and adolescents. The study's findings are highly recommended for use by health and education policymakers and program developers in developing preventive and treatment measures.

List of abbreviations

Confidence Interval-CI

Depression Anxiety Stress Scale-DASS Y-21

Medical Health Officer – MOH

Statistical package for social sciences- SPSS

Funding

No funding

Ethical consideration

Ethical approval for the study was obtained from the Ethical Review Committee of the Faculty of Allied Health Sciences, University of Ruhuna, Sri Lanka (Ref. 155.11.2022). Institutional permission for the study was obtained from the Provincial Director of the Educational Department, the Zonal Director, the Divisional Director, and the principals of the schools. All participants and their parents were provided with

an information sheet about the study and obtained written consent for participation.

Conflict of interest

Authors declare that there is no conflict of interest.

Author contributions

All authors contributed to the study conception and design. Material preparation, data collection, and data analysis were performed by PKTPP. The first draft of the manuscript was written by PKTPP, and BIW. All authors read and approved the final manuscript.

Acknowledgment

Dr. Amila Chandrasiri, Director of provincial, zonal education, all the principals, teachers, parents, and the study participants of the selected schools.

References

1. Moitra P, Madan J. Impact of screen time during COVID-19 on eating habits, physical activity, sleep, and depression symptoms: A cross-sectional study in Indian adolescents. *PLoS One* 2022;17:1–16. <https://doi.org/10.1371/journal.pone.0264951>.
2. Johnson AR, Sridhar PR, Joseph M. Is Screen Addiction a Problem Among Rural School-Going Adolescents? A Cross-Sectional Study in South Karnataka. *Journal of Indian Association for Child and Adolescent Mental Health* 2022;097313422210964. <https://doi.org/10.1177/09731342221096481>.

3. Yobel LA. A Study on Screen Addiction among Adolescents. *International Journal of Research in Engineering, Science and Management* 2019;2:845–8.
4. Meng SQ, Cheng JL, Li YY, Yang XQ, Zheng JW, Chang XW, et al. Global prevalence of digital addiction in general population: A systematic review and meta-analysis. *Clinical Psychology Review* 2022;92:102128. <https://doi.org/10.1016/J.CPR.2022.102128>.
5. Amudhan S, Prakasha H, Mahapatra P, Burma AD, Mishra V, Sharma MK, et al. Technology addiction among school-going adolescents in India: epidemiological analysis from a cluster survey for strengthening adolescent health programs at district level. *Journal of Public Health* (United Kingdom) 2022;44:286–95. <https://doi.org/10.1093/pubmed/fdaa257>.
6. Khalily MT, Bhatti MM, Ahmad I, Saleem T, Hallahan B, Ali SA e. Z, et al. Indigenously adapted cognitive-behavioral therapy for excessive smartphone use (IACBT-ESU): A randomized controlled trial. *Psychology of Addictive Behaviors* 2021;35:93–101. <https://doi.org/10.1037/adb0000677>.
7. Dong H, Yang F, Lu X, Hao W. Internet Addiction and Related Psychological Factors Among Children and Adolescents in China During the Coronavirus Disease 2019 (COVID-19) Epidemic. *Frontiers in Psychiatry* 2020;11:1–9. <https://doi.org/10.3389/fpsy.2020.00751>.
8. Maras D, Flament MF, Murray M, Buchholz A, Henderson KA, Obeid N, et al. Screen time is associated with depression and anxiety in Canadian youth. *Preventive Medicine* (Baltim) 2015;73:133–8. <https://doi.org/10.1016/j.ypmed.2015.01.029>.
9. Woods HC, Scott H. #Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. *Journal of Adolescence* 2016;51:41–9. <https://doi.org/10.1016/j.adolescence.2016.05.008>.
10. Liu J, Li B, Sun Y, Chen Q, Dang J. Adolescent Vision Health During the Outbreak of COVID-19: Association Between Digital Screen Use and Myopia Progression. *Frontiers in Pediatrics* 2021;9:1–7. <https://doi.org/10.3389/fped.2021.662984>.
11. Bozkurt H, Coskun M, Ayaydin H, Adak I, Zoroglu SS. Prevalence and patterns of psychiatric disorders in referred adolescents with Internet addiction. *Psychiatry and Clinical Neurosciences* 2013;67:352–9. <https://doi.org/10.1111/pcn.12065>.
12. Rohanachandra YM. Excessive screen use in children and adolescents: Impact, risk factors and interventions. *Sri Lanka Journal of Child Health* 2022;51:175–81. <https://doi.org/10.4038/slch.v51i2.10114>.
13. Szabo M, Lovibond PF, Luciano J V. Development and Psychometric Properties of the DASS-Youth (DASS-Y): An Extension of the Depression Anxiety Stress Scales (DASS) to Adolescents and Children 2022;13:1–16. <https://doi.org/10.3389/fpsyg.2022.766890>.
14. Lin MP. Prevalence of internet addiction during the covid-19 outbreak and its risk factors among junior high school students in Taiwan. *International Journal of Environmental Research and Public Health* 2020;17:1–12. <https://doi.org/10.3390/ijerph17228547>.
15. Denipitiya DTU, Fernando MAM, Wickramasinghe P. Technological and electronic communication device addiction and its associated physical and

- psychosocial comorbidity among obese and overweight children aged 10 to 14 years, who attend the nutrition clinic at Colombo North Teaching Hospital. *Sri Lanka Journal of Child Health* 2020;49:375–82.
<https://doi.org/10.4038/SLJCH.V49I4.9270>.
16. Kim B, Han SR, Park EJ, Yoo H, Suh S, Shin Y. The relationship between mother's smartphone addiction and children's smartphone usage. *Psychiatry Investigation* 2021;18:126–31.
<https://doi.org/10.30773/pi.2020.0338>.
 17. Xie X, Chen W, Zhu X, He D. Parents' phubbing increases Adolescents' Mobile phone addiction: Roles of parent-child attachment, deviant peers, and gender. *Child Youth Services Review*. 2019;105.
<https://doi.org/10.1016/j.chilcyouth.2019.104426>.
 18. Männikkö N, Ruotsalainen H, Miettunen J, Marttila-Tornio K, Kääriäinen M. Parental socioeconomic status, adolescents' screen time and sports participation through externalizing and internalizing characteristics. *Heliyon* 2020;6.
<https://doi.org/10.1016/j.heliyon.2020.e03415>.
 19. Jamir L, Duggal M, Nehra R, Singh P, Grover S. Epidemiology of technology addiction among school students in rural India. *Asian Journal of Psychiatry* 2019;40:30–8.
<https://doi.org/10.1016/j.ajp.2019.01.009>.
 20. Nigg C, Weber C, Schipperijn J, Reichert M, Oriwol D, Worth A et al. Urban-Rural Differences in Children's and Adolescent's Physical Activity and Screen-Time Trends Across 15 Years. *Health Education & Behavior*. 2022 Oct;49(5):789-800. Epub 2022 May 4.
<https://doi.org/10.1177/10901981221090153>
 21. Bickham DS, Moukalled S, Rich M. Technology, Mind & Society 2021 Conference Proceedings Young People's Media Use and Remote Schooling Experiences during the COVID-19 Pandemic 2021.
<https://doi.org/10.1037/xxxxxxx>.
 22. Sandal R, Goel N, Sharma M, Bakshi R, Singh N, Kumar D. Prevalence of depression, anxiety and stress among school going adolescent in Chandigarh. *Journal of Family Medicine and Primary Care* 2017;6:405.
<https://doi.org/10.4103/22494863.219988>
 23. Nicol A, Mak AS, Murray K, Walker I, Buckmaster D. The Relationships Between Early Maladaptive Schemas and Youth Mental Health: A Systematic Review. *Cognitive Therapy and Research* 2020;44:715–51.
<https://doi.org/10.1007/s10608-020-10092-6>.
 24. Rajapakse A, Wijenayake D. Effects of Exposure to Digital Screens in Children and Adolescence. Proceedings of the 13th International Research Conference, General Sir John Kotelawala Defence University 2020 ;219–22.
 25. Ahmadi J, Amiri A, Ghanizadeh A, Khademalhosseini M, Khademalhosseini Z, Gholami Z, et al. Prevalence of Addiction to the Internet, Computer Games, DVD, and Video and Its Relationship to Anxiety and Depression in a Sample of Iranian High School Students. *Iranian Journal of Psychiatry and Behavioral Sciences* 2014;8:75–80.
 26. Xue Y, Xue B, Zheng X, Shi L, Liang P, Xiao S, et al. Associations between internet addiction and psychological problems among adolescents: description and possible explanations. *Frontiers in Psychology* 2023;14.
<https://doi.org/10.3389/fpsyg.2023.1097331>.