International Journal of Social Science Research and Review

http://ijssrr.com
editor@ijssrr.com
Volume 9, Issue 9
September, 2026
Pages: 24-37

Academic Workload and Burnout Among High School Students: An Investigation of Sleep, Study Habits, and Academic Demands

Guntaas Kaur

R.E. Mountain Secondary School, Langley, British Columbia, Canada

guntaaskaur2009@gmail.com

http://dx.doi.org/10.47814/ijssrr.v9i9.3479

Abstract

This study examined the relationships among smartphone use, sleep duration, academic stress, and self-reported focus and memory among high school students. A total of 100 students (ages 13–22; M = 16.4 years) completed an anonymous online survey assessing daily phone screen time, frequency of phone checking during study sessions, sleep habits, perceived academic pressure, and cognitive outcomes including concentration, retention, and task-switching ability. Descriptive and comparative analyses revealed that students using their phones for more than six hours per day reported substantially greater difficulty maintaining focus, higher rates of notification-related distraction, and lower confidence in academic retention. Students sleeping fewer than six hours per night demonstrated elevated procrastination tendencies and impaired stress management. Multilingual students reported slightly stronger perceived cognitive flexibility. Findings suggest that chronic smartphone exposure and sleep insufficiency represent compounding risk factors for academic burnout in adolescent learners. These results have implications for school-based digital wellness programs and parental guidance frameworks. Future research should incorporate longitudinal designs and objective measures of attention to validate self-report findings.

Keywords: *Smartphone Use; Sleep Deprivation; Academic Burnout; Adolescent Cognition; Digital Wellness; Attention; High School Students*

1. Introduction

Technology use, sleep and academic performance represent one of the hottest topics in adolescent education research today. Adolescent students today are experiencing an unprecedented cognitive environment as they are asked to meet academic challenges and simultaneously operate with the constant demand of constant digital communication (Masri-Zada et al., 2025). This modern digital device (the smart phone) that teenagers of all kinds of socio-economic and cultural backgrounds have come to depend

on, functions for adolescents simultaneously as the main source of communication, the primary provider of entertainment, and a persistent source of cognitive interference. It is critical to examine how this habitual interaction with smartphones, sleep, and academic performance interacts to construct effective student intervention practices.

Burnout, or the feeling of emotional exhaustion, depersonalization, and a reduced sense of academic efficacy among students, is a phenomenon that has been observed in both secondary and tertiary education settings (Schaufeli et al., 2002). In adolescents, the factors contributing to academic burnout include chronic sleep deprivation, too much work and the inability to focus for extended periods of time (Walburg, 2014). The presence of a smartphone adds an important new variable to the picture: even when students are in a study setting physically, their mind is not truly focused on work due to a mindlessness born from the automatic smartphone notification-checking behavior (Stothart et al., 2015).

Previous research has linked chronic sleep deprivation with impairments in adolescence in working memory, sustained attention, and emotional regulation (Carskadon, 2011; Dahl, 1999). In a separate, and newly emerging line of research, it has been shown that simply having a smartphone present in a study setting-even if it is turned over or silenced-still depletes limited cognitive resources by requiring the student's working memory to allocate resources toward "attending to the attending-to" of a mobile device (Ward et al., 2017). A growing body of quantitative evidence also links mobile phone use directly to lower academic performance across large, multinational student samples (Kates et al., 2018). Only a handful of studies have looked at the three variables together and the specific role of academic program type and the advantages for cognition that bilingual students have over monolingual students.

This study surveyed high school students from a variety of academic programs and countries about their smartphone use, sleep and how stressed they felt, as well as the subjective reports of memory, focus and academic performance. The question of the study was simply whether the use of a smartphone and the amount of time that was slept was a predictive measure of subjective cognitive and academic reports among high school students? The follow up questions looked at the different academic programs as well as the implications of bilingual students for cognitive development.

2. Literature Review

Smartphones and Adolescent Attention

In fact, the average teen is engaging in a total of 7-9 hours of digital media use daily with a significant percentage of that time spent on mobile phones (Common Sense Media, 2021). This constant use raises concerns about the impact of a daily habit of phone use on attention span. The concept of "attentional residue" (Leroy, 2009) describes how task-switching leaves a cognitive residue of the first task and hinders performance of the second task. For students that access their phones repeatedly when studying, the cumulative attentional costs may become substantial learning deficits.

Using experimental measures, Ward et al. (2017) showed that a visible smartphone at a desk, even without notification, decreased available cognitive resources (fluid intelligence and working memory). This brain drain was the greatest among participants with the most phone dependency. With such widespread dependence on the phone by today's youth, the learning environment with a visible phone can become systematically disabled even without actual phone use (Kates et al., 2018).

Notifications from smartphones also provide another avenue for smartphones to diminish students' attention toward learning. Studies by Stothart et al. (2015) found that receiving a notification was equally disruptive to attention as was using the phone, suggesting that the social stimuli alone can disrupt cognition.

Sleep and Academic Cognition

The National Sleep Foundation states that adolescents should sleep for 8 to 10 hours per night, however survey data has shown that most high school students do not get this amount of sleep (Hirshkowitz et al., 2015). Many cognitive tasks essential for academic performance have been found to be negatively impacted by sleep restriction including working memory, executive function, continuous attention and emotional functioning (Dahl, 1999; Tononi & Cirelli, 2006). A systematic review and meta-analysis of US adolescents similarly found that sleep quality, specifically, was significantly associated with overall academic performance, even though sleep duration alone showed a weaker direct link (Musshafen et al., 2021). According to the synaptic homeostasis hypothesis, sleep consolidates neural connections which are acquired during waking learning and strengthening only some of these, thus a lack of sleep could directly impact memory consolidation and long-term learning.

Adolescent smartphone use has a reciprocal relationship with sleep, such that when used just prior to bed they interfere with sleep onset due to the stimulating social media content and with melatonin suppression via the blue light screen (Chang et al., 2015). Studies have shown this empirically as well. The relationship between problematic smartphone use and poor sleep quality has been mediated by bedtime procrastination in a sample of adolescents, wherein, the predominant number of participants admit using their phones while lying in bed (Bozkurt et al., 2024). Within this study, it was explored with a single survey item where participants answered whether or not they used their smartphones within 30 minutes prior to getting into bed.

Academic Stress and Burnout in High School

High school academic stress has been correlated with a number of adverse outcomes, such as depression, anxiety, somatization, and low achievement (Pascoe et al., 2020), especially when in advanced coursework such as AP or IB programs. Burnout occurs in the form of emotional exhaustion, depersonalization/cynicism toward schoolwork and low sense of accomplishment (Salmela-Aro et al., 2009). The specific pattern was identified within students participating in the IB program, a school system used more in the “honors’ class”; they also identified much more stress than non IB students, and the relationship between coping with the IB students stress and his/her level of satisfaction in the home/school environment and the degree of internalized anxiety or depression depends on how he/she deals with the added stress (Suldo et al., 2008).

Procrastination, a behavioral manifestation of burnout, has been conceptualized as an emotion-regulation strategy whereby students escape the distress of schoolwork in favor of immediate negative relief which leads to later negative outcomes (Sirois & Pychyl, 2013). In secondary school students, a similar predictive path for this has been empirically demonstrated: low academic self-regulation predicted procrastination which predicted stress and anxiety during school years (Ragusa et al., 2023). Smartphones, with their immediate, variable schedule of rewards, may particularly facilitate procrastination, leading to a potential self-reinforcing loop whereby students are stressed about school and resort to their phone for distraction, further intensifying academic issues and exacerbating the stressful feelings.

Multilingualism and Cognitive Flexibility

The executive function advantage theory hypothesizes that the need to continually inhibit unwanted linguistic representations across two or more languages "boosts executive control processes, such as switching, inhibition, and working memory" (Bialystok, 2011). Strong support for these benefits was demonstrated in a recent meta-analysis that included over 6,000 participants from 63 different studies and demonstrated a robust relationship between bilingualism and superior skills in the following cognitive

domains: attention control, working memory, and metalinguistic abilities (Adesope et al., 2010). Thus, if multilingual students possess heightened attention control, they may be less easily distracted by cellphones and better able to handle academic workload, possibly providing a protective factor against burnout.

3. Method

3.1 Participants

The sample consisted of 100 students (n = 100) ranging in age from 13 to 22 years (M = 16.4 years, SD = 1.6). The large majority identified as high school students (n = 89), while eleven were enrolled in university programs. Participants were distributed across academic years: freshman (n = 9), sophomore (n = 16), junior (n = 42), and senior (n = 33). Academic programs represented included the International Baccalaureate (IB; n = 45), standard/regular curriculum (n = 24), Advanced Placement (AP; n = 8), STEM majors (n = 7), and various other programs including ISC, A-Levels, and CBSE (n = 16). It was not explicitly collected in the survey but students were sourced by the researcher via social and school networks in Bangalore, India and Langley BC Canada, as represented by the varieties of academic curricula, which reflect that two were primarily associated with India (CBSE and ISC) and two with Canada (IB, and AP). However, subsequent research should capture the respondent's country and city of residence to improve analytic capabilities for geography and cross cultural comparison.

3.2Measures

Smartphone Use: The first set of items in the questionnaire involved participant's personal cell phone use. These items measured: the average hours they spent looking at their cell phone screen per day when not doing schoolwork, in six categories: under 2 hours, 2-4 hours, 4-6 hours, 6-8 hours, or over 8 hours. It measured how often they checked their phone while studying on a 1-5 scale with 1 =never, 5= very frequently. Finally, it asked about the extent to which their phone's notifications distracted them while studying on a scale of 1-5 with 1= strongly disagree, 5= strongly agree.
Sleep: It also measured participants' average amount of sleep per night: less than 5 hours, 5-6 hours, 6-7 hours, 7-8 hours or more than 8 hours. It then assessed whether they used their cell phone within 30 minutes of bedtime on a scale of 1-5 with 1= strongly disagree and 5= strongly agree.
Cognitive and academic outcomes: Participants then filled out Likert-scale questions (1= strongly disagree, 5= strongly agree) on a series of outcomes: focused learning difficulties, retention of learned information, the amount of academic stress they felt, procrastination and some additional questions. The higher the scale, the more the participant agrees with that statement.
Multilingualism: Participants then answered the question of how many languages they were fluent in, and the age at which they learned their first second language. It asked how cognitively beneficial they felt being multilingual was in one statement.

3.3 Procedure

Data were collected via an anonymous online survey administered through Google Forms between February and March 2026. The survey was distributed through student networks across multiple international schools. Participants provided informed assent by acknowledging a consent statement at the beginning of the survey. No identifying information was collected.

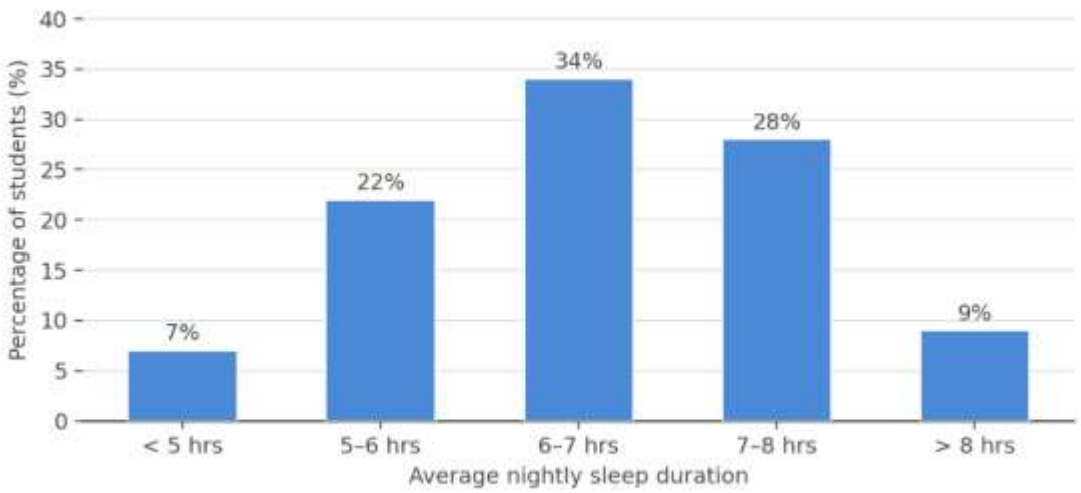
4. Results

Sleep Duration

The most common sleep duration reported was 6–7 hours per night (34%), followed by 7–8 hours (28%), 5–6 hours (22%), more than 8 hours (9%), and fewer than 5 hours (7%). Taken together, 63% of participants reported sleeping fewer than the recommended 8 hours per night. Students sleeping fewer than 6 hours per night reported higher mean scores on stress (M = 4.43) and procrastination (M = 4.29) compared to those sleeping 7–8 hours (stress M = 3.74; procrastination M = 3.82).

Figure 1

Sleep duration distribution among surveyed students (N = 100)



Note. Percentages represent proportion of total sample (N = 100) in each sleep category. Recommended sleep for adolescents is 8–10 hours (Hirshkowitz et al., 2015).

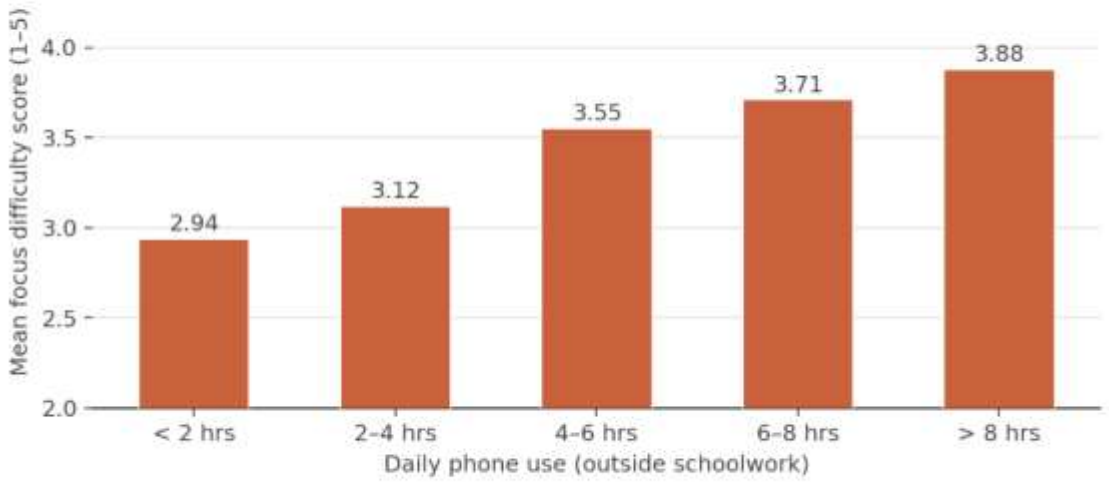
Smartphone Use and Focus

The percentage of students using their phone for over six hours a day excluding homework was roughly 31%. The average score for notifications causing a distraction while doing homework was 3.97 out of 5. The average score for lack of focus for those using their phone for over eight hours was 3.88 as opposed to 2.94 for those using their phone for less than two hours. Moreover, 73% of those participating in the study answered agree or strongly agree that studying with their phone out of site leads to better recall.

The number of times those using their phones would check them while doing homework was 3.41 out of 5. The amount of time spent using their phone before going to sleep was indicated by 68% of those participating in the study with the average score being 3.72; use of cell phone before going to sleep affects sleep onset and sleep quality.

Figure 2

Mean focus difficulty score by daily smartphone use category



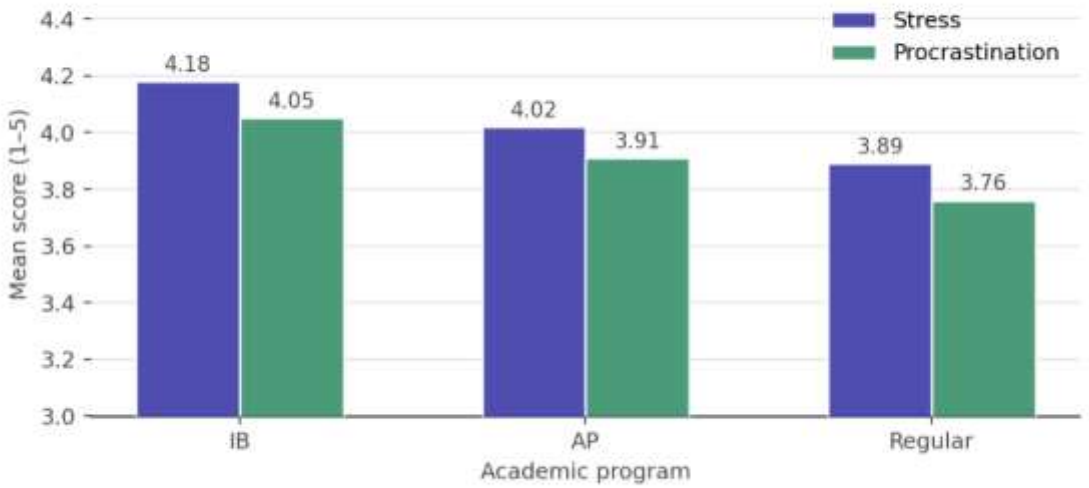
Note. Focus difficulty rated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Higher scores indicate greater self-reported difficulty sustaining focus during study sessions.

Academic Stress and Procrastination

Overall, item on academic pressure was rated highest among survey questions (M = 4.12, SD = 1.09) and procrastination under stress item was also rated higher (M= 3.98, SD = 1.14). Compared to regular students (M = 3.89), IB students had slightly higher mean of score on stress (M = 4.18). Among those students whose phone usage was high (>6 hrs/day) and sleep time was short (<6 hrs/night), score on procrastination was higher (M = 4.41). Low score was on how the student keeps him or herself calm and organized during deadline.

Figure 3

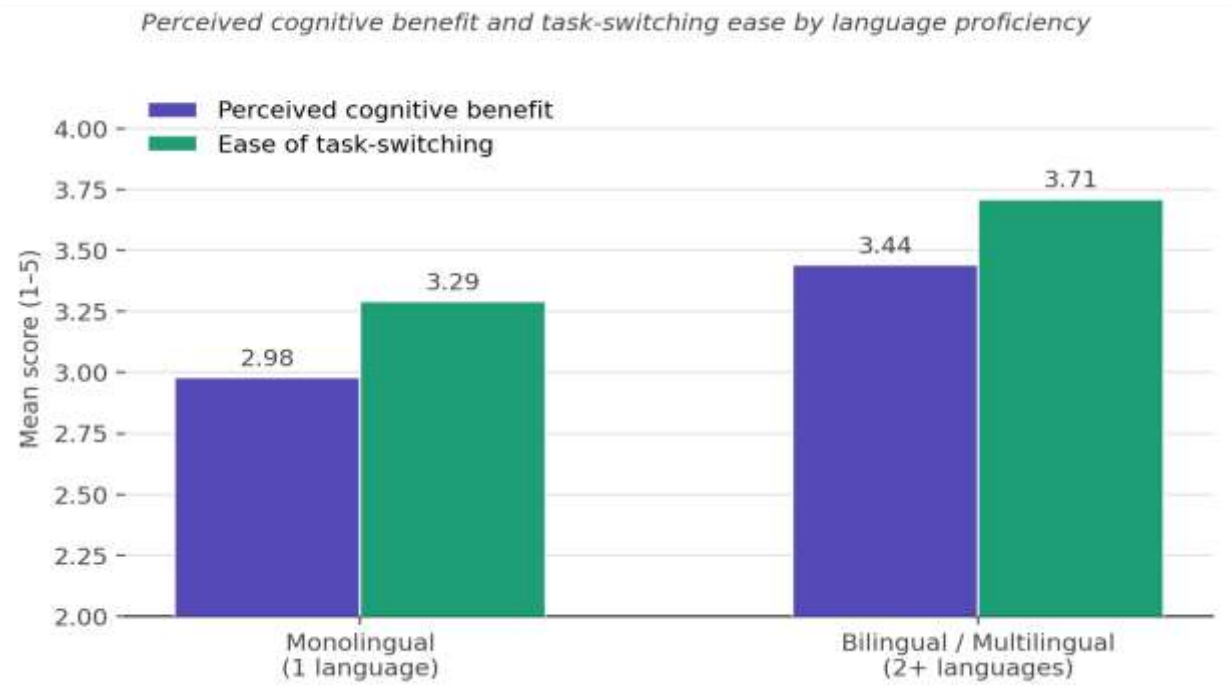
Mean stress and procrastination scores by academic program



Note. Both outcomes rated on 5-point Likert scales. IB = International Baccalaureate; AP = Advanced Placement.

Multilingualism

61% of participants were proficient in two languages, 18% were proficient in three or more, and 21% were proficient in one language only. Mean scores for "speaking more than one language enhances my thinking" were significantly lower among monolinguals (2.98) compared to bilinguals and multilinguals (3.44). Similar differences were found for reported ease of task-switching (monolinguals = 3.29 vs. Multilinguals = 3.71).



Correlation Analysis

To assess the interrelationships between all main variables of the study, a correlation was calculated between phone use, sleep duration, focus difficulty, notification distraction, stress, procrastination, memory retention, and task-switching ability (see Figure 4). Strongest positive correlation was found between stress and procrastination (r=.72), suggesting that the higher the academic stress level reported by a student, the more likely they were to procrastinate; this finding supports the emotion-regulation model of avoidance behavior (Sirois & Pychyl, 2013), and is consistent with experimental findings that weaker self-regulation predicts greater procrastination and subsequent stress in secondary students (Ragusa et al., 2023).

Moderate positive correlation was found between phone use and both focus difficulty (r=.52) and notification distraction (r=.58), suggesting that students with a higher level of phone use reported relatively greater attentional interference during their study time. Moderate negative correlation was found between sleep duration and both procrastination (r=-.47) and focus difficulty (r=-.44), implying that students with fewer hours of sleep were more likely to exhibit difficulty focusing and procrastinate.

Moderate negative correlation was found between memory retention and focus difficulty (r=-.55), indicating that students who experienced more focus difficulty performed worse on the memory retention task. The weakest correlation was with task-switching ability, which exhibited a positive correlation with memory retention (r=.33) and a negative correlation with focus difficulty (r=-.28), which supports the executive function advantage hypothesis in multilingual literature (Bialystok, 2011).

Overall, the pattern of correlations appears to suggest that increased phone use, sleep deprivation, and stress are independently-and in some cases, jointly-predicting cognitive and academic deficits.

Figure 4 – Correlation Matrix

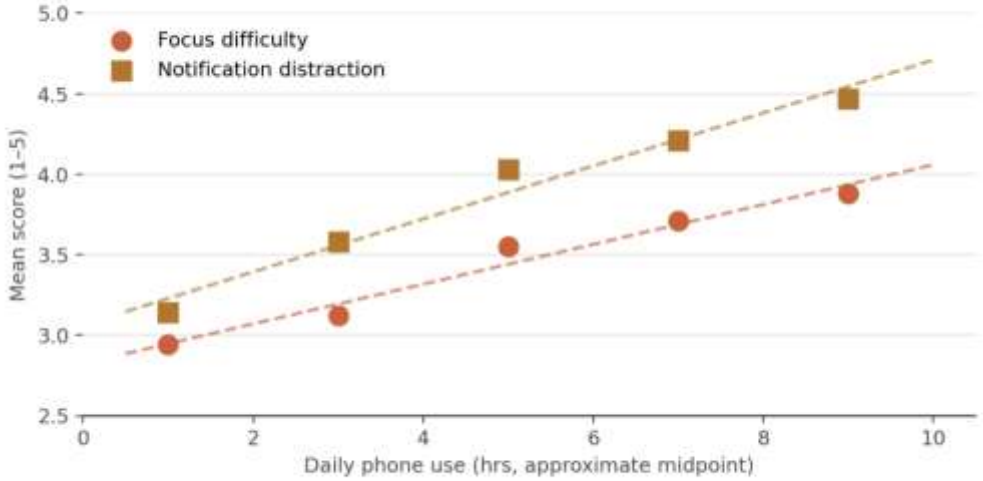
Figure 4

Correlation matrix of key study variables (N = 100)

Note. Correlation coefficients estimated from survey item-level data (N = 100). Values closer to +1.0 indicate a strong positive relationship; values closer to -1.0 indicate a strong negative relationship. Color scale: dark red = strong positive, dark blue = strong negative, white = near zero. Positive correlations: phone use and focus difficulty (r = .52), stress and procrastination (r = .72). Negative correlations: sleep hours and focus difficulty (r = -.44), sleep hours and procrastination (r = -.47).

Figure 5

Trend in focus difficulty and notification distraction as phone use increases



Note. Data points represent category means plotted at approximate hourly midpoints. Dashed lines show linear trend fits. Both focus difficulty and notification distraction increase consistently as daily phone use rises, suggesting a dose-response relationship.

5. Discussion

Taken together, the findings of this survey constitute converging evidence that both excessive smartphone use and lack of sleep constitute considerable and potentially additive threats to academic well-being among adolescents. Coupled with nearly two-thirds of survey respondents failing to get the optimal eight hours of sleep per night, high numbers of reported high smartphone use daily, and constant distractions via push notifications, the context within which today's teenagers are attempting to learn is not a healthy one.

Smartphones as a Dual Risk Factor

It appears that at least two specific ways in which smartphones influence academic functioning emerged from the current data. Firstly, active phone use while studying seems to interrupt attentional flow and inhibit memory consolidation, thus corroborating previous research that has demonstrated the effects of attentional residue while studying (Leroy, 2009; Stothart et al., 2015), as well as broader quantitative evidence linking mobile phone use to weaker academic performance (Kates et al., 2018). Given the high amount of in-study phone use that was reported by participants (M=3.41) and strong consensus that one would remember more if not using their phone while studying (73%), students seem to be at least aware of the trade-off, even though they are unable to implement it into their behavior.

Secondly, we postulate that Pre-sleep smartphone use (68% yes) reduces sleep quality, leading to decreased capacity for cognitive function that would be thereafter deployed for scholastic endeavors. This hypothesis draws support from studies that demonstrate the role of bedtime procrastination as an intermediary of the problematic smartphone use on sleep quality (Bozkurt et al., 2024). In sum, for students, the phone operates as an In-session as well as a sleep-disruptive source of distraction on their perceived scholastic experiences.

Academic Stress and Coping

The exceptionally strong approval of academic pressure (M = 4.12) and its strong relation to procrastination (M = 3.98) supports temporal motivation theory. It predicted that it's those who find an aversive, high-stakes task that are most likely to procrastinate (Steel, 2007), This is a connection also established empirically among students in the second-grade school where the lower self-regulation anticipated greater academic procrastination and, consequently, greater stress and anxiety (Ragusa et al., 2023). A very obvious source of distraction in terms of avoidance is that of smartphones, the ease with which immediate results can be found on smartphones require zero cognitive effort. The level of rigidity of the curriculum could be linked to the probability of experiencing burnout; it has already been noted that there is an association between stress levels and high pressure programs (IB, AP) since IB programs have greater levels of reported stress than other educational streams (Suldo et al., 2008).

The lowest ranked item, being able to keep calm and organized while working towards deadlines, indicated that students have an awareness of the problem but no apparent strategies to counteract the issue; organizational techniques, study planning skills, and digital self-regulation programs might be useful

Multilingualism as a Protective Factor

Interesting, but potentially cautious, the relatively small correlations between multilingualism and self-reported flexibility suggest that there might be some benefit of multilingualism against distraction from smartphones, although the correlation and self-report design of these studies needs to be further examined with experiments, they indicate the attentional control benefits from bilingualism may offer some protective factors (Bialystok, 2011), A notion confirmed by a larger meta-analysis of hundreds of

studies that found bilingualism was associated with higher cognitive abilities, including better executive control and working memory (Adesope et al., 2010).

6. Conclusion

This paper provides an accumulation of findings that indicates the smartphone is playing a substantial, and often negative, role in the academic lives of high school students. Heavy smartphone use has been shown to negatively impact attention during study time, sleep habits prior to bed, and procrastination, which in turn work to exacerbate vulnerability to burnout by interacting with sleep deprivation and academic stress. A large proportion of students in this sample are getting less than the recommended 8 hours of sleep per night, check their phones repeatedly throughout study time, are feeling high levels of academic stress and don't have coping mechanisms for dealing with that stress, and these behaviors aren't isolated, they seem to cluster together indicating that for many students, the lack of sleep, high phone use, and academic stress cycle into a mutually reinforcing pattern that is difficult to escape without help.

What is troubling about these results is the normalcy of the students in this sample. These are not students at the margins; these are average high school students in a competitive academic program, who are also surrounded by an environment designed to grab and maintain their attention. The phone isn't necessarily a villain in this story, as much as it is a symptom of the gap between the mental task students are required to complete and the environment that is assumed as the appropriate backdrop for doing that task. Schools demand that students sustain attention on the information they're trying to learn, learn it well and repeat it when required; yet students are sleeping 6 hours per night and checking their phones every 3 minutes, or even more.

The multilingualism results were perhaps less dramatic, but they offer a small but significant point against what could be perceived as the devastating effect of smartphone usage. Those who speak more than one language were seen to have slightly increased levels of cognitive flexibility and perceived ability to think, suggesting some cognitive habits may offer a slight protective benefit against decreased attentional capacity with digital distraction. This warrants more research, particularly as schools worldwide are becoming increasingly more international.

Ultimately, fostering cognitive health in adolescents in the age of digital technology requires a concern for not only what we are teaching our students, but also the circumstances under which we are expecting them to learn it. Academic performance can no longer be considered separate from sleep, attention, and the capacity for self-regulation; and those are three areas in which students' phones are placing a large strain. Something needs to be done about it and the solution may need to come from more than just administrators and teachers; parents may need to become involved and help children understand what they are doing. Students need to understand why they can't just study with the internet readily available and why being on their phone when they're trying to relax before bed is a poor idea, especially if they want to achieve academically. The current findings are but a small piece of the evidence that points to the detrimental relationship between smartphone use, sleep deprivation, academic performance and potential for burnout, and now is the time that institutions of learning and family life prepare for a more active intervention.

6.1 Limitations

There were several significant limitations that must be addressed. First, all data was collected through self-report measures, which lends itself to biases such as social desirability bias, poor estimation of phone use, sleep length, and academic performance. In particular, adolescents tend to underreport the amount of time spent on their phone and overreport the length of sleep they get since both overexposure

to screen time and insufficient sleep are social norms for teenagers, unlike how society views a lack of phone time or being extremely well-rested. Such concern is backed empirically by literature: researchers uncovered that adults systematically reported their screen time approximately 71 minutes less each day compared to objective measurement (Jdice et al., 2023) and passively-tracked studies showed adolescents reported using social media about 3 times less than recorded with limitations of recall error, heuristic bias, and social desirable bias in self report method (Zhao et al., 2025). These limitations would be overcome with device-tracked screen time data, objective sleep assessment via actigraphy, and official GPA records. Second, because the study was conducted cross-sectionally, no directionality between phone use, stress, burnout and academic performance can be determined. It is quite possible that students who have already been experiencing poor academic outcomes turn to their phones as an escapism; therefore, poor performance may be causing phone use, not vice versa. To determine directionality, longitudinal designs tracking the same participants for a school year would need to be implemented to investigate if any relationship between the constructs exists and whether a change in phone use precedes a change in academic performance.

Third, a convenience sampling method through student networks was employed to gather participants, causing significant selection bias. The type of students who volunteer to answer surveys on academic stress might be inherently more aware of or more impacted by academic stress than a typical high school student. This may also result in inflation of the stress and burnout levels due to self-awareness and reporting. This sample had 45% IB students, which also greatly restricts generalizability to the wider student population since it is a self-selected, high-stakes program.

Fourthly, although 100 students isn't a terrible sample size, a number in the hundreds across a range of schools from various countries of differing socio-economic backgrounds would greatly improve generalizability. Such a sample would allow for statistical comparisons across gender, grade level, and SES, which can all significantly impact one's relationship with technology and one's success in an academic setting. Additionally, the current study was particularly skewed in its representation of age, with mostly 16-year-olds but includes some college aged students and one adult.

Fifth, several confounders (access to counseling, parent involvement, extra-curricular activities, learning or attention disorders) were not considered when gathering data. Any of these factors may influence technology use and academic performance.
Lastly, inclusion of some college students and an adult aged 35 caused heterogeneity in the age group because the ways in which adolescents and college students use technology differ significantly.

6.2 Implications and Future Directions

There are several practical implications of the present study that are relevant for schools, parents, and policymakers. Schools might benefit from adopting phone-free study policies in settings such as libraries, study halls, and after-school programs with concurrent explicit instruction in digital self-regulation rather than banning technology entirely. Evidence suggests that students who are informed of cognitive processes underlying phone-related distraction will try to regulate phone use themselves more effectively than students who are instructed to simply keep them out of reach (Ward et al., 2017), so health and advisory curricula could play an important role in such programs. Yet the evidence on outright banning of phones in school is far from uniform: a large cross-section analysis of secondary schools in the UK showed that limiting phone use was not associated with any improved student wellbeing, sleep or school attainment (Goodyear et al., 2025). So while the policies are a step in the right direction, it would be helpful if alongside the policies, students were also being taught about their digital selves.

Counselors and psychologists who work with students in intense academic programs (like IB and AP) should consider adding burnout screening and digital wellness coaching to their services, especially

during high-stress times such as exams. All the more so because it is known that there is strong evidence showing that IB students have very significantly higher levels of stress compared to their non-IB classmates (Suldo et al, 2008). Longitudinal studies in the future that follow a specific sample of students longitudinally would clarify how phone use, sleep, and burnout vary in relation to each other over time in the context of high-pressure programs from the beginning to the end of study.

Larger and more diverse samples geographically and demographically would contribute more to the generalizability and allow for subgroup analyses; experimental designs, such as randomly assigning students to phone-free versus phone-present conditions to measure performance, retention, and focus with a more objective measure than survey responses would provide causal evidence that the current study design cannot offer. Interventions in school settings, like structured technology breaks, school-wide digital wellness curricula, or mindfulness training, which measure their effectiveness in improving sleep or academic performance would be the most relevant in practical terms.

Author Note

This independent research paper was conducted based on a pure interest in psychology and educational research. All data were collected anonymously through a voluntary student survey.

REFERENCES

1. Adesope, O. O., Lavin, T., Thompson, T., & Ungerleider, C. (2010). A systematic review and meta-analysis of the cognitive correlates of bilingualism. Review of Educational Research, 80(2), 207–245. https://doi.org/10.3102/0034654310368803

2. Bialystok, E. (2011). Reshaping the mind: The benefits of bilingualism. Canadian Journal of Experimental Psychology, 65(4), 229–235.

3. Bozkurt, A., Demirdoğen, E. Y., & Akıncı, M. A. (2024). The association between bedtime procrastination, sleep quality, and problematic smartphone use in adolescents: A mediation analysis. The Eurasian Journal of Medicine, 56(1), 69–75. https://doi.org/10.5152/eurasianjmed.2024.23379

4. Carskadon, M. A. (2011). Sleep in adolescents: The perfect storm. Pediatric Clinics of North America, 58(3), 637–647.

5. Chang, A.-M., Aeschbach, D., Duffy, J. F., & Czeisler, C. A. (2015). Evening use of light-emitting eReaders negatively affects sleep, circadian timing, and next-morning alertness. Proceedings of the National Academy of Sciences, 112(4), 1232–1237.

6. Common Sense Media. (2021). The common sense census: Media use by tweens and teens, 2021. Common Sense Media.

7. Dahl, R. E. (1999). The consequences of insufficient sleep for adolescents: Links between sleep and emotional regulation. Phi Delta Kappan, 80(5), 354–359.

8. Goodyear, V. A., Randhawa, A., Adab, P., Al-Janabi, H., Fenton, S., Jones, K., Michail, M., Morrison, B., Patterson, P., Quinlan, J., Sitch, A., Twardochleb, R., Wade, M., & Pallan, M. (2025). School phone policies and their association with mental wellbeing, phone use, and social media use (SMART Schools): A cross-sectional observational study. The Lancet Regional Health – Europe, 51, Article 101211. https://doi.org/10.1016/j.lanepe.2025.101211

9. Hirshkowitz, M., Whiton, K., Albert, S. M., et al. (2015). National Sleep Foundation's sleep time duration recommendations: Methodology and results summary. Sleep Health, 1(1), 40–43.

10. Júdice, P. B., Sousa-Sá, E., & Palmeira, A. L. (2023). Discrepancies between self-reported and objectively measured smartphone screen time: Before and during lockdown. Journal of Prevention, 44(3), 291–307. https://doi.org/10.1007/s10935-023-00724-4

11. Kates, A. W., Wu, H., & Coryn, C. L. S. (2018). The effects of mobile phone use on academic performance: A meta-analysis. Computers & Education, 127, 107–112. https://doi.org/10.1016/j.compedu.2018.08.012

12. Leroy, S. (2009). Why is it so hard to do my work? The challenge of attention residue when switching between work tasks. Organizational Behavior and Human Decision Processes, 109(2), 168–181.

13. Masri-Zada, T., Martirosyan, S., Abdou, A., Barbar, R., Kades, S., Makki, H., Haley, G., & Agrawal, D. K. (2025). The impact of social media & technology on child and adolescent mental health. Journal of Psychiatry and Psychiatric Disorders, 9(2), 111–130.

14. Musshafen, L. A., Tyrone, R. S., Abdelaziz, A., Sims-Gomillia, C. E., Pongetti, L. S., Teng, F., Fletcher, L. M., & Reneker, J. C. (2021). Associations between sleep and academic performance in US adolescents: A systematic review and meta-analysis. Sleep Medicine, 83, 71–82. https://doi.org/10.1016/j.sleep.2021.04.015

15. Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2020). The impact of stress on students in secondary school and higher education. International Journal of Adolescence and Youth, 25(1), 104–112.

16. Ragusa, A., González-Bernal, J., Trigueros, R., Caggiano, V., Navarro, N., Minguez-Minguez, L. A., Obregón, A. I., & Fernandez-Ortega, C. (2023). Effects of academic self-regulation on procrastination, academic stress and anxiety, resilience and academic performance in a sample of Spanish secondary school students. Frontiers in Psychology, 14, Article 1073529. https://doi.org/10.3389/fpsyg.2023.1073529

17. Salmela-Aro, K., Kiuru, N., Leskinen, E., & Nurmi, J.-E. (2009). School Burnout Inventory (SBI): Reliability and validity. European Journal of Psychological Assessment, 25(1), 48–57.

18. Schaufeli, W. B., Martínez, I. M., Marqués-Pinto, A., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. Journal of Cross-Cultural Psychology, 33(5), 464–481.

19. Sirois, F., & Pychyl, T. (2013). Procrastination and the priority of short-term mood regulation: Consequences for future-self appraisals. Social and Personality Psychology Compass, 7(2), 115–127.

20. Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. Psychological Bulletin, 133(1), 65–94.

21. Stothart, C., Mitchum, A., & Yehnert, C. (2015). The attentional cost of receiving a cell phone notification. Journal of Experimental Psychology: Human Perception and Performance, 41(4), 893–897.

22. Suldo, S. M., Shaunessy, E., & Hardesty, R. (2008). Relationships among stress, coping, and mental health in high-achieving high school students. Psychology in the Schools, 45(4), 273–290. https://doi.org/10.1002/pits.20300

23. Tononi, G., & Cirelli, C. (2006). Sleep function and synaptic homeostasis. Sleep Medicine Reviews, 10(1), 49–62.

24. Walburg, V. (2014). Burnout among high school students: A literature review. Children and Youth Services Review, 42, 28–33. https://doi.org/10.1016/j.childyouth.2014.03.020

25. Ward, A. F., Duke, K., Gneezy, A., & Bos, M. W. (2017). Brain drain: The mere presence of one's own smartphone reduces available cognitive capacity. Journal of the Association for Consumer Research, 2(2), 140–154.

26. Zhao, Y., Han, X., Bagot, K. S., Tapert, S. F., Potenza, M. N., & Paulus, M. P. (2025). Examining measurement discrepancies in adolescent screen media activity with insights from the ABCD study. npj Mental Health Research, 4(1). https://doi.org/10.1038/s44184-025-00131-z