EXPLORING THE RELATIONSHIP BETWEEN SCREEN TIME AND SLEEP PATTERN AMONG UNDERGRADUATES IN A PRIVATE UNIVERSITY

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Abstract

This study examines the relationship between screen time and sleep patterns among undergraduates at Babcock University. Screen time, involving activities such as social media usage, online gaming, web browsing, and video watching, has been linked to adverse sleep effects including delayed sleep onset, reduced sleep duration, and decreased sleep quality. As screen usage becomes integral to the modern undergraduate experience, understanding its impact on sleep is critical. A quantitative survey research design and stratified random sampling technique were employed, using standardized instruments and self-developed questionnaires to gather data from undergraduate students. The findings indicate a consistent negative relationship between screen times and sleep patterns, with a mean score of 1.90. Specifically, the duration of screen time negatively correlates with sleep patterns, showing a mean score of 2.98. Different types of screen activities significantly affect sleep quality and duration, evidenced by a mean score of 3.02. The study also explores potential interventions to promote healthy screen time habits and improve sleep hygiene, highlighting the necessity of addressing excessive screen use, especially before bedtime, to mitigate its disruptive effects on sleep. These disruptions can lead to decreased academic performance and increased stress levels, underlining the importance of promoting overall health and well-being among undergraduates.

Keywords: **Screen time, Sleep patterns, Sleep quality, Sleep hygiene, Babcock University, Undergraduates.**

Introduction

In recent decades, universities have implemented new infrastructure to enable undergraduates to bring their own devices (BYOD) for educational purposes (Sani, 2017). This move has been accompanied by the development of relevant technology infrastructure to support campus-based teaching approaches, such as blended and hybrid learning. These approaches have increased learning flexibility by facilitating ease of content access, cost effectiveness, time efficiency, and enhanced student engagement (Tafesse, 2020). Sleep, as defined by the World Health Organization, is a daily biological process essential for health and well-being. It significantly impacts physical, emotional, and mental health, as well as cognitive performance.

Adequate and high-quality sleep is crucial for the overall well-being and development of students, affecting various aspects of their cognitive, emotional, and physical health (Higuchi et al., 2014).

Screen time, defined as the amount of time spent on devices with displays such as phones, computers, televisions, or game consoles (Merriam-Webster Dictionary, 2023), is often perceived negatively due to its association with prolonged use. Negative implications of excessive screen time include reduced attention spans, sleep disturbances, and the development of anxiety and depression symptoms (Ko et al., 2012). Despite these concerns, there are no specific recommendations for adult screen time, unlike the guideline for children aged 2 to 5, who are advised to limit screen time to one hour per day (HSE, 2021). It is estimated that 20-25% of total sleep involves REM sleep, a value that decreases with screen time before bed (Anon, 2022).The complex relationship between screen time and sleep patterns requires further investigation, particularly within educational settings like Babcock University. Screen time includes various activities such as social media usage, online gaming, web browsing, and watching videos. These activities have become a defining aspect of the modern undergraduate experience, influencing their daily routines, social interactions, and leisure activities. Screen time can be categorized into recreational and educational domains, each potentially exerting different effects on sleep patterns.

Understanding the sleep patterns of undergraduates involves recognizing their unique behaviour and routines related to sleep. This includes specific timings, duration, and quality of sleep commonly observed among this demographic. Adolescents, including undergraduates, often display individualized sleep patterns influenced by biological changes, societal expectations, and lifestyle preferences. Numerous studies suggest that excessive screen time, particularly before bedtime, may interfere with sleep quality and quantity among undergraduates. Electronic screens emit blue light, which can suppress melatonin production—a hormone that regulates sleep-wake cycles (Higuchi et al., 2014). Prolonged screen use in the evening can disrupt the circadian rhythm and delay sleep onset, leading to reduced sleep duration. These sleep disturbances can profoundly affect students' academic performance, mental health, and overall well-being (Orzech et al., 2016).

Despite extensive global research on this topic, the relationship between screen time and sleep patterns among undergraduates at Babcock University remains underexplored. While existing studies have examined this relationship in various cultural contexts, it is crucial to investigate how the unique socio-cultural and environmental factors at Babcock University influence this relationship. Academic demands, peer relationships, and campus lifestyle are factors that could introduce variations in the observed effects. Babcock University students face the academic pressures of a highly competitive educational system. The rigorous curriculum often requires intensive study sessions, which may include the use of electronic devices for educational purposes. The demands of schoolwork and exam preparation can significantly influence screen time and sleep patterns. Therefore, conducting this study within the context of Babcock University is vital to develop customized strategies and guidance that address the distinct challenges and opportunities faced by the university's student population.

Statement of the Problem

> In recent years, the extensive use of digital screens has become an integral part of the daily lives of teenagers, including those enrolled at Babcock University. The proliferation of smartphones, computers, tablets, and other electronic devices has provided teenagers with unprecedented access to information, social interaction, and entertainment. However, this surge in screen time has raised concerns about its potential impact on the sleep patterns and overall well-being of these youngsters.

Undergraduates, due to their developmental stage, require adequate and quality sleep to support physical and cognitive growth. Sleep patterns are essential for memory consolidation, emotional regulation, and overall health. Excessive screen time, particularly before bedtime, has been associated with various adverse effects on sleep, such as delayed sleep onset, reduced sleep duration, and decreased sleep quality. Furthermore, the content consumed during screen time, such as social media, video games, and streaming services, may contribute to heightened arousal and sleep disturbances. Babcock University, a prestigious institution of higher learning in Nigeria, has a diverse and techs-savvy student population, making it an ideal setting to investigate the relationship between screen time and sleep patterns among undergraduates. Despite the growing concern about this issue worldwide, limited empirical research has been conducted within the context of the academic institution, making it imperative to assess the scope and magnitude of the problem in this specific environment.

Objectives
1. To assess the incidence of normal and abnormal screen time among undergraduate students in Babcock University.
2. To investigate the association between screen time duration and sleep patterns among undergraduate students.
3. To examine the impact of different types of screen activities e.g., social media, gaming, academic-related tasks on sleep quality and duration.
4. To identify factors influencing screen time behaviour among undergraduate students, such as academic workload, social influences, and personal preferences.
5. To explore potential interventions or strategies to promote healthy screen time habits and improve sleep hygiene among undergraduate students.

Research Questions
1. What is the prevalence of screen time among undergraduate students in Babcock University?

2. How does the duration of screen time relate to sleep patterns among undergraduate students?

3. What are the specific effects of different types of screen activities (e.g., social media, gaming, academic-related tasks) on sleep quality and duration?
4. What factors contribute to variations in screen time behaviour among undergraduate students, including academic workload, social influences, and personal preferences?
5. What interventions or strategies could be effective in promoting healthy screen time habits and improving sleep hygiene among undergraduate students at Babcock University?

Literature Review

In recent years, the pervasive use of electronic devices has become an integral part of adolescents' lives, raising significant concerns about its impact on health behaviour, particularly screen time and sleep quality. Screen time, encompassing activities like television viewing, video gaming, and social media engagement, has been associated with various physical and psychosocial outcomes among young individuals. Studies consistently link excessive screen time to increased risks of obesity, sleep disturbances, and emotional challenges such as loneliness and diminished self-esteem (Beyens et al., 2018; Stiglic & Viner, 2019). During early adolescence, a critical developmental period marked by increased autonomy and exploration, young people often engage in screen-based activities as a means of social interaction and entertainment (Tremblay et al., 2011). Despite guidelines recommending limited screen time, research indicates widespread non-compliance among adolescents, with many exceeding recommended daily limits (Statistics Canada, 2016/17; Walsh et al., 2016). This trend is not confined to North America but it is also observed globally, underscoring its universality and impact on youth well-being (Sigman, 2012; Straatmann et al., 2016).

The consequences of excessive screen time extend beyond physical health, impacting emotional well-being. Studies highlight associations between prolonged screen exposure and increased risks of anxiety, depression, and social isolation among adolescents (Maras et al., 2015; Twenge et al., 2018). Notably, the relationship between screen time and emotional outcomes often follows a curvilinear pattern, where moderate use can yield positive outcomes like relaxation, while excessive use correlates with adverse emotional states (Saunders & Vallance, 2017; Przybylski & Weinstein, 2017).

Parallel to concerns about screen time is the issue of sleep quality among adolescents, which plays a vital role in their overall health and well-being. Research indicates that inadequate sleep, influenced by factors such as screen use before bedtime and bedroom media access, is prevalent among youth and contributes to various negative outcomes, including impaired cognitive function and increased vulnerability to mental health disorders (Hale & Guan, 2015; Gradisar et al., 2013).

The relationship between screen time and sleep quality is complex, with screens emitting blue light that suppresses melatonin production, thereby disrupting the sleep-wake cycle (Cain & Gradisar, 2010). Moreover, engaging in stimulating screen activities close to bedtime can heighten cognitive arousal, further compromising the ability to achieve restful sleep (Exelmans & Van den Bulck, 2016. Understanding the interplay between screen time, sleep, and emotional well-being during early adolescence is crucial for developing effective interventions and promoting healthier behaviours among youth. The literature underscores the need for guidelines that balance the benefits of digital engagement with the risks posed by excessive screen use. Future research should focus on exploring nuanced interventions that address both screen time management and sleep hygiene practices to optimize the developmental outcomes and emotional well-being of adolescents.

This review consolidates current knowledge on screen time and sleep among adolescents, highlighting their impact on health behaviours and emphasizing the importance of fostering positive habits during this critical developmental stage.

Theoretical Framework

This study is grounded in two key theoretical frameworks: Social Cognitive Theory (SCT) and Attention Restoration Theory (ART). These frameworks provide a comprehensive lens through which the relationship between screen time and sleep patterns among undergraduates can be understood.

Social Cognitive Theory (SCT) posits that behaviour is shaped by the dynamic interplay between personal factors, environmental influences, and the behaviour itself. In the context of screen time and sleep patterns among undergraduates, SCT suggests that individual factors such as self-regulation, perceived benefits of screen use, and peer influence interact with environmental factors like access to screens and societal norms regarding screen usage to shape students' behaviours. For instance, students with higher self-regulation are likely to limit their screen time before bedtime, leading to healthier sleep patterns. Conversely, peer pressure or societal expectations related to late-night screen use may lead students to prioritize screen time over sleep, thereby disrupting sleep schedules.

Attention Restoration Theory (ART) emphasizes the role of restorative environments in replenishing cognitive resources and enhancing attention and mental well-being. Applied to the study of screen time and

sleep patterns, ART suggests that excessive screen use, particularly before bedtime, may overstimulate the brain, hindering the restorative processes necessary for quality sleep. On the other hand, engaging in activities that promote relaxation and mental restoration—such as spending time away from screens, reading, or practising mindfulness—can enhance sleep quality and duration. This theory underscores the importance of balancing screen use with activities that support mental rejuvenation to maintain healthy sleep patterns among undergraduate students.

Empirical Review
Empirical studies further illuminate the relationship between screen time and sleep. Hale and Guan (2019) reviewed the association between screen time and sleep among children and adolescents, consistently finding that increased screen time, particularly before bedtime, is linked to shorter sleep duration and lower sleep quality. Similarly, Le Bourgeois et al. (2020) found that greater exposure to digital media, including smart phones and computers, correlates with delayed bedtimes, shorter sleep duration, and poorer sleep quality. Their study also highlights the need for setting screen time guidelines to promote healthier sleep habits. In another study, Carter and Rees (2021) conducted a meta-analysis on the effects of television exposure on sleep in children and adolescents, revealing a negative association between television viewing and sleep, where greater television use was associated with shorter sleep duration and increased sleep disturbances.

Conceptual Framework
The conceptual framework for this study integrates elements from SCT and ART into a comprehensive model that guides the investigation of the relationship between screen time and sleep patterns among undergraduates at Babcock University. The framework positions screen time as the independent variable, encompassing various forms of electronic media use such as smart phones, tablets, computers, and televisions. The dependent variable, sleep patterns, includes dimensions such as sleep duration, sleep quality, and sleep disturbances.
Intermediate variables, which are influenced by both screen time and sleep patterns, may include cognitive functioning, emotional well-being, and academic performance. Additionally, contextual factors such as family dynamics, peer relationships, and academic demands are considered within the conceptual framework as potential moderators or mediators of the relationship between screen times and sleep patterns.
This comprehensive approach allows for a proper understanding of how screen time influences sleep patterns among undergraduates, taking into account individual, social, and environmental factors. By incorporating these theoretical and conceptual frameworks, the study aims to provide a holistic understanding of the factors that contribute to sleep disturbances and other sleep-related outcomes in the context of modern undergraduate life. This understanding will inform strategies for promoting healthier screen habits and improving sleep hygiene among students.

Methodology
The research methodology employed in this study aimed to systematically investigate the relationship between screen time and sleep patterns among undergraduate students at Babcock University. A quantitative survey approach was utilized, focusing on two departments within the Veronica Adeleke School of Social Sciences: Political Science and Economics. The study employed a quantitative survey methodology to comprehensively examine the population's attitudes and behaviors related to screen time and sleep patterns. This approach facilitated a detailed exploration within a structured framework of descriptive research. The study population consisted of 639 students from the Political Science and Economics departments at Babcock University. These departments were selected to represent the broader undergraduate population within the specified academic context. The research focused on capturing insights from a private university setting renowned for its diverse academic disciplines. A multi-stage random sampling technique was employed to select a representative sample from the Veronica Adeleke School of Social Sciences Babcock University, Ilishan-Remo, Ogun State.
This method ensured that the selected departments were a fair representation of the broader student body. The Taro Yamane formula was applied to determine a sample size of 246 respondents, comprising 75 from Political Science and 171 from Economics, based on their respective departmental populations. A self-

structured questionnaire was utilized as the primary research instrument. It consisted of sections covering demographic information, screen time prevalence assessment, sleep patterns, factors influencing screen time behaviour, and interventions for healthy screen time habits. The questionnaire underwent validity assessment by a supervisor and reliability testing via a pilot study with Cronbach's alpha coefficient indicating a high level of internal consistency ($\alpha = 0.789$).Data were collected through direct administration of questionnaires to respondents, ensuring informed consent, confidentiality, and clarity in explanations provided by trained research assistants.Data were processed, coded, and analysed using the Statistical Package for Social Sciences (SPSS). Statistical tests, including Pearson correlation coefficient, were used to explore relationships between variables with a predetermined significance level. This methodology provided a robust framework for investigating the complex interplay between screen time and sleep patterns among undergraduate students, contributing to the understanding of behavioral factors in academic settings.

Findings
Results of Analysis
Research Question 1: What is the incidence and prevalence of normal or abnormal screen time among undergraduate students in Babcock University?

Table 1: Mean responses on the incidence of regular and irregular screen time among undergraduates students in Babcock University

Statement	Yes F(%)	No F(%)	Total Mean	Standard Deviation
Do you spend a significant amount of time on screens (smart phones, computers,tablets, televisions) every day?	212 (89.8%)	24 (10.2%)	1.90	.30
My screen time often exceeds more than 4 hours per day	198 (83.9%)	38 (16.1%)	1.84	.37
I find it difficult to reduce my screen time even when I intend to do so.	168 (71.2%)	68 (28.8%)	1.71	.45
Do you frequently use multiple screens simultaneously (e.g., using a smart phone while watching TV)?	159 (67.4%)	77 (32.6%)	1.67	.47
Is Screen time being a major part of your daily routine?	173 (73.3%)	63 (26.7%)	1.73	.44
AVERAGE MEAN			1.77	.40

The table shows that the respondents affirmed that they spend significant amount of time on screens (smart phones, computers, tablets, TVs) every day ($\bar{x} = 1.90$), they confirmed their screen time often exceeds more than 4 hours per day ($\bar{x} = 1.84$), they find it difficult to reduce their screen time even when they intend to ($\bar{x} = 1.71$), they frequently use multiple screens simultaneously (e.g., using a smart phone while watching TV ($\bar{x} = 1.67$), and Screen time is a major part of their daily routine ($\bar{x} = 1.73$)

Research Question 2: What is the association between screen time duration and sleep patterns among undergraduate students?

Table 2: Mean responses to investigate the association between screen time duration and sleep patterns among undergraduate students in Babcock University.

Items	SA Freq. (%)	A Freq. (%)	D Freq. (%)	SD Freq. (%)	Mean $\bar{x}$	Standard Deviation (SD)
My screen time is influenced by my need for entertainment or relaxation.	84 (35.6%)	133 (56.4%)	16 (6.8%)	3 (1.3%)	3.26	.64
My screen time increases when I have a heavy academic workload.	73 (30.9%)	124 (52.5%)	29 (12.3%)	10 (4.2%)	3.10	.77
I use screens to cope with stress or negative emotions.	71 (30.1%)	110 (46.6%)	49 (20.8%)	6 (2.5%)	3.04	.78
I prioritize screen time over other activities like exercise or socializing with friends	65 (27.5%)	81 (34.3%)	75 (31.8%)	15 (6.4%)	2.83	.91
I maintain a wakeup time on weekdays that works well for me	63 (26.7%)	111 (47.0%)	59 (25.0%)	3 (1.3%)	2.99	.76
I believe that the specific devices or types of content negatively influence my sleep quality	57 (24.2%)	112 (47.5%)	58 (24.6%)	9 (3.8%)	2.92	.80
AVERAGE MEAN					3.02	.77

KEY: SA=Strongly Agree, A= Agree, D=Disagree, SD=Strongly Disagree

***Decision Rule if mean is 1-1.49= SD; 1.5-2.49= D; 2.5-3.49= A; 3.5-4.0= SA

Note: Interpretation Rule = SA & Agree = high; D and SD = low

Table 2 shows that generally the association between screen time duration and sleep patterns is high ($\bar{x}$ =2.98). The respondents **strongly agreed that**; they often use screens (e.g., smart phones, laptops) right before going to bed ($\bar{x}$ =3.59), **agreed;** Their screen time negatively affects the quality of my sleep ($\bar{x}$ =2.93), they experience difficulty falling asleep after prolonged screen use ($\bar{x}$ =2.85), they wake up frequently during the night due to screen-related activities ($\bar{x}$ =2.65), their screen time habits have caused them to feel tired or unrest in the morning ($\bar{x}$ =3.05), Engaging in social media activities before bed affects their ability to fall asleep ($\bar{x}$ =2.88), Doing academic-related tasks on screens close to bedtime affects their sleep quality ($\bar{x}$ =3.03), Watching movies, playing video games or TV shows before sleeping affects their sleep patterns ($\bar{x}$ =2.86), Screen time habits is difficult to control ($\bar{x}$ =2.94).

Research Question 3: What are the impacts of different types of screen activities on sleep qualities and duration?

Table 3: Mean responses to identify factors influencing screen time behaviour and its consequence on sleep qualities and duration.

Items	SA Freq. (%)	A Freq. (%)	D Freq. (%)	SD Freq. (%)	Mean $\bar{x}$	Standard Deviation (SD)
My screen time is influenced by my need for entertainment or relaxation.	84 (35.6%)	133 (56.4%)	16 (6.8%)	3 (1.3%)	3.26	.64
My screen time increases when I have a heavy academic workload.	73 (30.9%)	124 (52.5%)	29 (12.3%)	10 (4.2%)	3.10	.77
I use screens to cope with stress or negative emotions.	71 (30.1%)	110 (46.6%)	49 (20.8%)	6 (2.5%)	3.04	.78
I prioritize screen time over other activities like exercise or socializing with friends	65 (27.5%)	81 (34.3%)	75 (31.8%)	15 (6.4%)	2.83	.91
I maintain a wakeup time on weekdays that work well for me	63 (26.7%)	111 (47.0%)	59 (25.0%)	3 (1.3%)	2.99	.76
I believe that the specific. Devices or types of content negatively influence my sleep quality	57 (24.2%)	112 47.5	58 24.6	9 (3.8%)	2.9 (2%)	.80
AVERAGE MEAN					3.02	.77

KEY: SA=Strongly Agree, A= Agree, D=Disagree, SD=Strongly Disagree
   ***Decision Rule if mean is 1-1.49= SD; 1.5-2.49= D; 2.5-3.49= A; 3.5-4.0= SA
Note: Interpretation Rule = SA & Agree = high; D and SD = low

Table 3 shows that generally the impact of different types of screen activities (e.g., social media, gaming, academic-related tasks) on sleep quality and duration is high ($\bar{x}$ =3.02). The respondents agreed that; their often use screens (e.g., smart phones, laptops) right before going to bed ($\bar{x}$ =3.26), their screen time increases when they have a heavy academic workload ($\bar{x}$ =3.10), they use screens to cope with stress or negative emotions ($\bar{x}$ =3.04), they prioritize screen time over other activities like exercise or socializing with friends ($\bar{x}$ =2.83), they maintain a wakeup time on week days that works well for them ($\bar{x}$ =2.99) and believe that the specific Devices or types of content negatively influence their sleep quality ($\bar{x}$ =2.92).

Research Question Four: What factors contribute to variations in screen time behaviour among undergraduate students, including academic workload, social influences, and personal preferences?

Table Four: Mean responses to examine factors that contribute to variations in screen time behaviors among undergraduate students, including academic workload, social influences and personal preferences.

Items	SA Freq. (%)	A Freq. (%)	D Freq. (%)	SD Freq. (%)	Mean $\bar{x}$	Standard Deviation (SD)
My screen time is influenced by my need for entertainment or relaxation.	84 (35.6%)	133 (56.4%)	16 (6.8%)	3 (1.3%)	3.26	.64
My screen time increases when I have a heavy academic workload.	73 (30.9%)	124 (52.5%)	29 (12.3%)	10 (4.2%)	3.10	.77
I use screens to cope with stress or negative emotions.	71 (30.1%)	110 (46.6%)	49 (20.8%)	6 (2.5%)	3.04	.78
I prioritize screen time over other activities like exercise or socializing with friends	65 (27.5%)	81 (34.3%)	75 (31.8%)	15 (6.4%)	2.83	.91
I maintain a wakeup time on weekdays that works well for me	63 (26.7%)	111 (47.0%)	59 (25.0%)	3 (1.3%)	2.99	.76
I believe that the specific. Devices or types of content negatively influence my sleep quality	57 (24.2%)	112 (47.5%)	58 (24.6%)	9 (3.8%)	2.92	.80
AVERAGE MEAN					**3.02**	**.77**

KEY: SA=Strongly Agree, A= Agree, D=Disagree, SD=Strongly Disagree
   ***Decision Rule if mean is 1-1.49= SD; 1.5-2.49= D; 2.5-3.49= A; 3.5-4.0= SA
Note: Interpretation Rule = SA & Agree = high; D and SD = low

Table 4.4 shows that generally the impact of different types of screen activities (e.g., social media, gaming, academic-related tasks) on sleep quality and duration is high ($\bar{x}$ =3.02). The respondents agreed that; their often use screens (e.g., smart phones, laptops) right before going to bed ($\bar{x}$ =3.26), their screen time increases when they have a heavy academic workload ($\bar{x}$ =3.10), they use screens to cope with stress or negative emotions ($\bar{x}$ =3.04), they prioritize screen time over other activities like exercise or socializing with friends ($\bar{x}$ =2.83), they maintain a wakeup time on week days that works well for them ($\bar{x}$ =2.99) and believe that the specific Devices or types of content negatively influence their sleep quality ($\bar{x}$ =2.92). Research Objective four: to explore potential interventions or strategies to promote healthy screen time habits and improve sleep hygiene among undergraduate students.

Research Question Five: **What are the potential interventions or strategies to promote healthy screen time habits to improve sleep hygiene among undergraduate students.**

Table 5: Mean responses to explore the potential interventions or strategies to promote health screen time habits to improve sleep hygiene among undergraduate students.

Items	SA Freq. (%)	A Freq. (%)	D Freq. (%)	SD Freq (%)	Mean x̄	(SD)
Implementing screen-free zones or times in my daily routine would be beneficial for my overall well-being.	78 (33.1%)	144 (61.0%)	14 (5.9%)	0 (0.0%)	3.27	.56
I would be interested in participating in workshops or seminars on managing screen time effectively.	53 (22.5%)	136 (57.6%)	37 (15.7%)	10 (4.2%)	2.98	.74
Having reminders or alerts to take breaks from screens would help me reduce my screen time.	85 (36.0%)	106 (44.9%)	39 (16.5%)	6 (2.5%)	3.14	.78
I would be open to trying apps or tools that track and limit my screen time usage.	63 (26.7%)	125 (53.0%)	45 (19.1%)	3 (1.3%)	3.05	.71
Educating students about the negative effects of excessive screen time on sleep and overall health would motivate me to reduce my screen time.	53 (22.5%)	129 (54.7%)	42 (17.8%)	12 (5.1%)	2.94	.78
It is appropriate to seek assistance or guidance regarding my sleep habits or screen time usage.	60 (25.4%)	113 (47.9%)	53 (22.5%)	10 (4.2%)	2.94	.80
I am familiar with any recommended strategies for improving sleep quality and management	54 (22.9%)	100 (42.4%)	72 (30.5%)	10 (4.2%)	2.84	.82
I am familiar with any recommended strategies for improving sleep quality and management.	54 (22.9%)	100 (42.4%)	72 (30.5%)	10 (4.2%)	2.84	.82
AVERAGE MEAN					3.02	.74

KEY: SA=Strongly Agree, A= Agree, D=Disagree, SD=Strongly Disagree
 ***Decision Rule if mean is 1-1.49= SD; 1.5-2.49= D; 2.5-3.49= A; 3.5-4.0= SA

Table 5 shows that generally, the respondents agreed there are potential interventions or Strategies to promote healthy screen time habits and improve sleep hygiene among undergraduate students ($\bar{x}$ =3.02). The respondents agreed that; Implementing screen-free zones or times in their daily routine would be beneficial for their overall well- would be interested in participating in workshops or seminars on managing screen time effectively ($\bar{x}$ =2.98), Having reminders or alerts to take breaks from screens would help them reduce their screen time. ($\bar{x}$ =3.14), they would be open to trying apps or tools that track and limit their screen time usage ($\bar{x}$ =3.05), Educating students about the negative effects of excessive screen time on sleep and overall health would motivate me to reduce their screen time and It is appropriate to seek assistance or guidance regarding my sleep habits or screen time usage ($\bar{x}$ =2.94) and they are familiar with any recommended strategies for improving sleep quality and managing ($\bar{x}$ =2.84).

Discussion of Findings

These research findings highlight a concerning trend among undergraduate students regarding their screen time habits and its detrimental effects on sleep quality and overall well-being. Firstly, it's evident that a significant proportion of students spend extensive hours daily on various screens, including smartphones, laptops, and TVs. This prolonged screen exposure, especially before bedtime, has been consistently linked to disrupted sleep patterns and poor sleep quality. Studies such as those by Hale and Guan (2019) and Mireku et al. (2019) underscore the prevalence of sleep disturbances among students due to excessive screen time, leading to fatigue, mood swings, and diminished academic performance. It emphasizes the interplay between academic workload and screen time behavior. Students often resort to screens for both academic tasks and leisure, particularly during periods of heavy academic demands. This dual usage not only exacerbates their screen time but also contributes to heightened cognitive arousal, making it harder for them to unwind and fall asleep. The findings suggest that strategies aimed at managing academic stress and promoting effective time management could mitigate these effects, potentially improving sleep hygiene among students.

Moreover, the impact of screen time isn't limited to sleep disruption but extends to broader aspects of mental health and well-being. The association between excessive screen use and increased risk of mental health disorders such as depression and anxiety is well-documented. This underscores the need for interventions that not only educate students about the negative effects of screen time but also empower them with practical tools to manage their screen use effectively. The study identifies potential interventions to foster healthier screen time habits and enhance sleep hygiene among students. These include creating screen-free zones or times, providing education on sleep hygiene practices, and promoting the use of screen time management tools. Additionally, workshops or seminars on stress management and establishing bedtime routines could empower students to prioritize sleep and overall well-being amidst their academic responsibilities. Addressing the complex issue of screen time among undergraduate students requires a comprehensive approach that integrates education, behavioral interventions, and institutional policies. By promoting awareness and providing practical strategies, educational institutions can support students in cultivating healthier habits that optimize both their academic performance and their mental and physical health.

Conclusion

Addressing the complex issue of screen time among undergraduate students requires a comprehensive approach that integrates education, behavioral interventions, and institutional policies. By promoting awareness and providing practical strategies, educational institutions can support students in cultivating healthier habits that optimize both their academic performance and their mental and physical health.

Recommendation

he recommendations you provided emphasize the importance of addressing excessive screen time, particularly as it relates to sleep hygiene and overall student well-being. These strategies offer a multi-faceted approach to mitigating the negative effects of screen use, and the suggestions are both practical and relevant, especially within an academic setting like Babcock University. Below, I offer an analysis of each recommendation:

1. Educational Programs on Screen Time and Sleep Hygiene

Babcock University, or any academic institution, should indeed take an active role in educating students about the negative consequences of excessive screen use on sleep quality and general health. This could be achieved through curriculum integration, workshops, or even through extracurricular seminars. By fostering awareness among students about the direct correlation between screen exposure and sleep deprivation, the university can equip students with the knowledge necessary to make healthier lifestyle choices. Furthermore, including discussions on good sleep hygiene—such as maintaining a regular sleep schedule and avoiding screens before bed—can empower students to manage their habits more effectively.

2. Encouragement of Time Limits for Screen-Based Activities

Encouraging students to set time limits for their screen-based activities is a proactive measure. Universities can go further by offering tools or apps that help students track their screen usage and provide alerts when they are exceeding recommended limits. The implementation of policies or guidelines that specifically address screen use, particularly before bedtime, would be a critical step. This recommendation aligns with

promoting discipline and conscious use of technology, both of which are essential for overall well-being and productivity. Additionally, policies could encourage students to find a balance between screen time and other meaningful activities, fostering a healthier academic and social environment.

3. Workshops or Seminars on Sleep Hygiene

Conducting workshops or seminars focused on sleep hygiene techniques is an excellent way to provide students with practical strategies for improving their sleep quality. These workshops could cover topics such as the importance of maintaining a consistent sleep schedule, relaxation techniques, and how to create a conducive sleep environment (e.g., reducing light exposure, managing noise, and minimizing distractions). These sessions could be led by experts in health or wellness, and students may benefit from peer-led initiatives, where individuals share their personal strategies for maintaining good sleep hygiene. Emphasizing the impact of sleep on academic performance and mental health will likely resonate with students, encouraging them to prioritize better sleep habits.

4. Establishment of Tech-Free Zones and Times

Establishing designated tech-free zones or times within campus facilities is an innovative approach to helping students disconnect from screens and engage in alternative leisure activities. This initiative would promote mindfulness and social interaction, encouraging students to participate in physical activities, reading, or socializing in person. Tech-free zones could be implemented in common areas such as study halls, dining facilities, or recreational spaces. By creating a supportive environment that discourages screen use in certain areas, universities can foster a culture that values balance, well-being, and mental health. Such spaces could also serve as stress-relief areas, where students can engage in other calming activities such as meditation or reading.

Limitation of the Study

In this course of this study, the researcher encountered several obstacles and hindrances that significantly impacted the data collection and analysis processes. Foremost among these constraints were financial challenges, which mitigated the acquisition of necessary data and restricted logistical movement between various locations within the research area. Likewise, the reluctance of respondents to complete questionnaires presented a substantial challenge, adversely affecting the overall response rate and the comprehensiveness of the data collected.

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