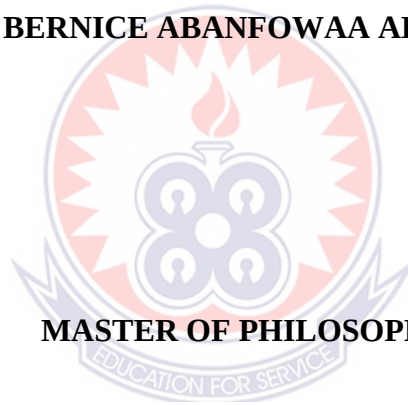


UNIVERSITY OF EDUCATION, WINNEBA

Effects of social media usage on university students' academic performance, social skills and sleep quality

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MASTER OF PHILOSOPHY

UNIVERSITY OF EDUCATION, WINNEBA

**EFFECTS OF SOCIAL MEDIA USAGE ON UNIVERSITY STUDENTS'
ACADEMIC PERFORMANCE, SOCIAL SKILLS AND SLEEP QUALITY**

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(220032738)**



**A Thesis in the Department of Information and Communication Technology
Education, Faculty of Science Education, submitted to the School of Graduate
Studies in partial fulfilment of the requirements for the award of the degree of**

**Master of Philosophy
(Information and Communication Technology)
in the University of Education, Winneba**

JUNE, 2024

DECLARATION

Candidate's Declaration

“I, Bernice Abanfowaa Abban, hereby declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.”

Signature

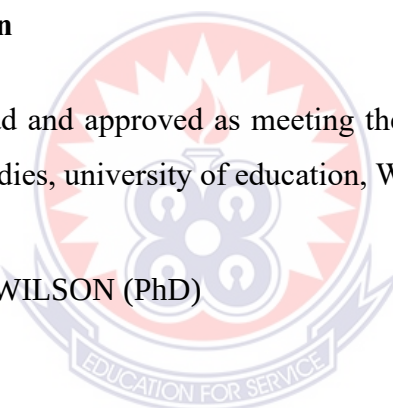
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Supervisor's Declaration

“This thesis has been read and approved as meeting the requirements of the school of research and graduate studies, university of education, Winneba.”

DR. OSAFO APEANTI WILSON (PhD)

(Principal Supervisor)



Signature

Date:

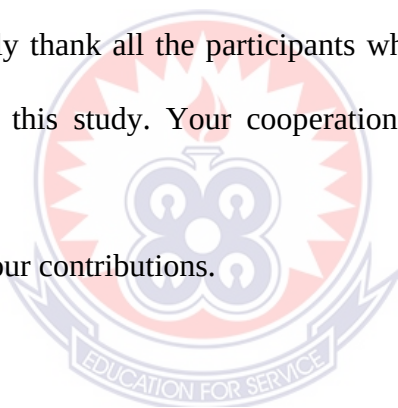
ACKNOWLEDGEMENTS

I am grateful to God almighty for life, the gift of understanding and wisdom. I want to express my heartfelt gratitude to my supervisor, Dr. Osafo Apeanti Wilson, for his patient guidance, enthusiastic encouragement, and insightful critiques that were instrumental in shaping this research project and developing this thesis.

I also extend my thanks to all the lecturers in the ICT department for their valuable feedback and suggestions, which significantly enhanced the quality of my research. Special appreciation goes to my family for their unwavering support and understanding especially my father, Mr. Felix Ekow Abban and Bright Abban, throughout my academic journey. Their believe in me and encouragement have been helpful.

Lastly, I want to sincerely thank all the participants who generously contributed their time and experiences to this study. Your cooperation was essential in making this research possible.

Thankful to you all for your contributions.



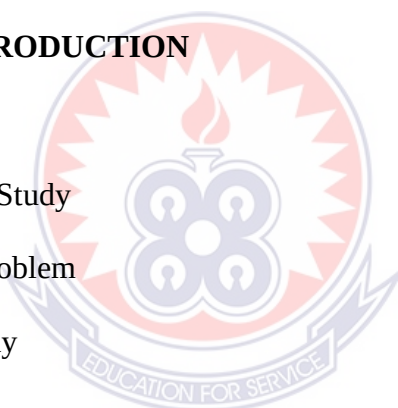
DEDICATION

I dedicate this thesis to my beloved family (THE ABBANS) whose unwavering support and encouragement have been my anchor throughout this journey and to all the individuals who contributed to this research directly or indirectly. Your participation and insights have enriched this work beyond measure.



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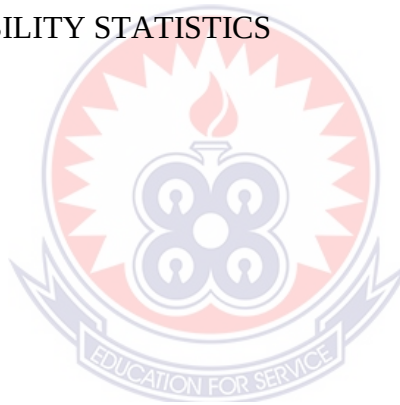
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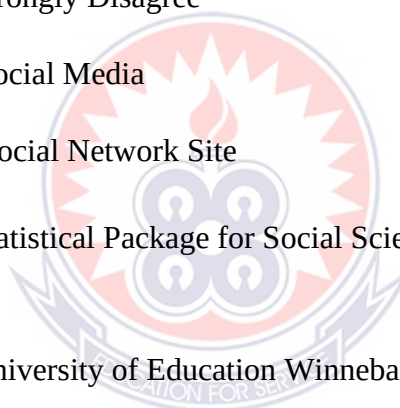
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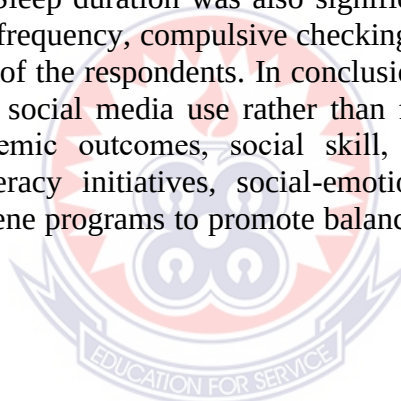
LIST OF ABBREVIATIONS

A (in tables)	Agree
ANOVA	Analysis of Variance
D (in tables)	Disagree
GPA	Grade Point Average
ICT	Information Communication Technology
LMS	Learning Management System
N (in tables)	Neutral
SA (in tables)	Strongly Agree
SD (in tables)	Strongly Disagree
SM	Social Media
SNS	Social Network Site
SPSS	Statistical Package for Social Sciences
UEW	University of Education Winneba



ABSTRACT

Social media has become deeply embedded in students' daily lives, offering platforms for communication, information sharing, and academic collaboration. However, its excessive or unregulated use raises concerns about its impact on students' academic performance, social skill development, and sleep quality. This study examined primarily, the influence of social media usage on academic performance (measured by Grade Point Average [GPA]), social skills, and sleep quality among students at all levels of the University of Education, Winneba. Employing a concurrent mixed-methods design, the study collected data from 282 students using structured questionnaires and open-ended qualitative questions. Quantitative data were analysed using multiple regression and Pearson's correlation, while qualitative responses underwent thematic analysis. The findings revealed that social media usage, social skills, and sleep quality were significant predictors of GPA. Specifically, excessive social media usage negatively affected academic performance, while higher social skills and better sleep quality positively predicted GPA. Additionally, the purpose of social media usage significantly influenced social skill outcomes. Academic-oriented use was positively associated with initiating conversations, empathy, and preference for face-to-face interaction, while entertainment and stress-relief usage were negatively correlated with these dimensions. Sleep duration was also significantly affected by social media habits, with notification frequency, compulsive checking, and night-time feed browsing all reducing sleep hours of the respondents. In conclusion, the study highlights that the purpose and patterns of social media use rather than frequency alone, are critical in shaping students' academic outcomes, social skill, and sleep health. The study recommends digital literacy initiatives, social-emotional learning integration, and campus-wide sleep hygiene programs to promote balanced and purposeful social media use.



CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter serves as an introduction to the study, outlining the background, problem statement, and study objectives. It also includes the research questions, significance, delimitations, and limitations of the study. Additionally, this chapter provides the organizational structure of the study and definitions of key terms used throughout the research.

1.2 Background of the Study

The way people interact, communicate, and get information has been completely transformed by the internet and social media. Nowhere is this transformation more apparent than in the lives of university students, for whom social media platforms serve as essential tools for both academic and personal engagement. Social media usage among students has grown dramatically in recent years, driven by the proliferation of smartphones and the ubiquity of mobile data access. Globally, social media has become deeply embedded in the daily routines of university students, who utilize platforms such as WhatsApp, Facebook, Instagram, TikTok, Twitter, and Snapchat for academic collaboration, peer interaction, and entertainment (Ghani, Talib, & Suratin, 2022; Sasu, 2023). However, the benefits of social media use are increasingly accompanied by concerns about its overuse and its implications for students' academic performance, social development, and physical and mental well-being. Studies have revealed that excessive and unregulated social media use can negatively impact students' concentration, time management, and ability to retain academic content, thereby diminishing academic performance (Fossion, Antonetti, & Lays, 2018; Danso, Awudi, Ntem, & Gyasi, 2023). The platform's design, which promotes continuous scrolling,

push notifications, and algorithmic content engagement, can lead to procrastination, distraction during study periods, and reduced cognitive engagement with academic materials (Tafesse, 2022; Haand & Shuwang, 2020).

One critical but often overlooked area of concern is the impact of social media use on students' social skills development. As students increasingly rely on virtual platforms for communication, there is growing evidence that this shift may hinder face-to-face social interactions, emotional regulation, and empathy. According to Alaika, Doghmi, and Cherti (2020), digital socialization, though efficient and wide-reaching, can diminish opportunities for real-world social practice, potentially leading to social avoidance, superficial relationships, and underdeveloped interpersonal skills. Students who heavily engage in online communication may become less confident in nonverbal interactions and public speaking or may struggle to navigate complex social contexts. This is especially problematic in academic environments where collaboration, discussion, and peer-to-peer learning are key components of academic success (Tabassum et al., 2020).

Furthermore, another vital aspect affected by social media use is sleep quality. As smartphones and tablets allow for uninterrupted internet connectivity, students frequently report late-night usage of social media platforms, which interferes with their natural circadian rhythms and delays sleep onset (Chang et al., 2015; Kadzikowska-Wrzosek, 2020). Nighttime exposure to blue light emitted from screens suppresses melatonin secretion, contributing to sleep fragmentation, poor sleep hygiene, and reduced sleep duration. The "Fear of Missing Out" (FoMO), coupled with constant notifications and alerts, further exacerbates sleep disturbances, leading students to wake up frequently or remain mentally alert even during sleep hours (Levenson et al., 2017).

Chronic sleep deprivation, in turn, has been linked to cognitive decline, reduced academic achievement, emotional instability, and physical health problems (Lemola et al., 2015; Lo et al., 2016).

The triadic relationship among academic performance, social skills, and sleep quality, as influenced by social media use, is central to this study's focus. While existing literature often examines these variables in isolation, there is a growing need to explore how they intersect and influence one another. For instance, a student who uses social media excessively may experience reduced sleep quality, which impairs concentration and memory retention, thereby affecting academic outcomes. Concurrently, their preference for online interaction may limit their engagement in academic group discussions or peer collaboration, further hindering learning. It is within this complex relationship that this study is situated. In the context of Ghana's tertiary education system, the rise in social media use among students cannot be ignored. According to Sasu (2023), over 635,000 students were enrolled in tertiary institutions in 2022, and a substantial proportion of these students are active users of social media. With 8.8 million Ghanaians using social media as of 2023, university campuses represent a major demographic of digital consumers. The consequences of poor digital hygiene manifested through reduced academic engagement, stunted social skills development, and compromised sleep pose a real threat to the realization of Sustainable Development Goal 4, which calls for inclusive and equitable quality education (Boeren, 2019). This is especially pressing given that mobile phones are widely accessible and used by most young adults in Ghana (Dokua, 2023), making social media both pervasive and habitual. It is against this backdrop that this study seeks to investigate how university students' social media usage influences their academic performance (measured by Grade Point Average [GPA]), social skills, and sleep quality within the Ghanaian

context. It adopts a concurrent mixed-methods design to capture both quantitative associations and qualitative perspectives of students' experiences. The study is grounded in two theoretical frameworks: Uses and Gratifications Theory (UGT) and Sleep and Circadian Rhythms Theory. UGT posits that individuals are active users of media who seek specific gratifications such as information, entertainment, or social connection. This theory explains the various motivations behind social media use and how these motivations can lead to different outcomes depending on the context and intensity of usage (Whiting & Williams, 2013). On the other hand, the Sleep and Circadian Rhythms Theory provides a physiological lens through which to explain how nighttime digital behaviours disrupt sleep and the biological processes regulating alertness and rest (Czeisler & Gooley, 2007). The findings of this study will not only enhance students' academic outcomes but also inform institutional strategies, educational interventions, and student wellness programmes that are better suited to the realities of the digital age.

1.3 Statement of the Problem

The increasing ubiquity of mobile phones and social media use in university settings has raised significant concerns regarding their influence on students' academic and psychosocial outcomes. At the University of Education, Winneba (UEW), the researcher consistently observed students deeply engrossed in mobile phone usage during lectures, study hours, and even face-to-face social interactions. Social media notifications are checked compulsively, often interrupting real-time communication and academic engagement. These patterns raise critical questions about how social media usage is reshaping students' academic lives, social skills, and sleep habits.

While global literature acknowledges both the positive and negative effects of social media usage among students, the current research landscape in Ghana remains limited and fragmented. Existing studies such as Essel and Wilson (2014), Dadzie and Fiawotoafor (2020), and Danso et al. (2023) have investigated the general impact of social media on academic performance. However, these studies have not holistically examined how social media use, social skills, and sleep quality interact to influence students' academic performance, particularly as measured by Grade Point Average (GPA). In addition, very few empirical studies in Ghanaian higher education institutions have focused on sleep quality and social skills as potential mediators or moderators of academic success in the context of social media usage.

This gap is significant, as academic performance is not solely influenced by intellectual ability but also by behavioural, emotional, and physiological factors. Social skills, for instance, are essential for collaborative learning, classroom participation, peer relationships, and professional development (García-Pérez et al., 2021). Sleep quality, on the other hand, affects memory consolidation, attention, mood regulation, and problem-solving skills, which are all critical to academic performance (Kanathila & Kachhi, 2025). The interplay between these variables: academic performance, social skills, and sleep behaviour requires empirical investigation, especially in a setting like Ghana, where social media usage is rapidly increasing among youth. Moreover, studies elsewhere have found that overuse of social media contributes to sleep disruption, reduced face-to-face communication, increased anxiety, and diminished academic outcomes (Haand & Shuwang, 2020; Caratiquit & Caratiquit, 2023). Whether these trends are mirrored in Ghanaian universities, particularly among students in UEW, is still unclear. This lack of localized empirical literature limits the ability of educational institutions and policy makers to formulate targeted interventions that address the

holistic development of students. Therefore, this study seeks to bridge this knowledge gap by examining the influence of social media usage on social skills, sleep quality, and academic performance of students across all levels in UEW. The significance of this inquiry lies in its potential to contribute to more effective digital literacy education, promote healthy academic lifestyles, and inform institutional policies that foster student well-being and academic success. Findings from this research could also support the implementation of student-centred strategies that balance technological engagement with cognitive and social development.

1.4 Purpose of the Study

This study investigated the influence of social media use on students' academic performance, social skills, and sleep quality across all students' levels in the University of Education, Winneba.

The following are the key objectives behind this research study:

1. To establish relationship between Social Media Use, Social Skills, and Sleep Quality in relation to students' Grade Point Average (GPA)
2. To examine how social media usage influences students' social skills.
3. To assess the extent to which social media notifications and interactions influence students' sleep quality.

1.5 Research Questions

This study was guided by the following research questions.

1. What is the relationship between Social Media Use, Social Skills, and Sleep Quality in relation to students' GPA?
2. How does social media usage influences students' social skills?

3. How do social media notifications and usage influence students' sleep quality?

1.6 Significance of the Study

The empirical finding of this study would contribute to knowledge by providing new evidence about how the use of social media influences the three key areas of a students' life thus, academic performance, social skills and sleep quality. Additionally, outcome from this study could also serve as a basis for future studies on social media usage and its impact on university students' academic achievement. Moreover, the findings of this study would inform policy makers of tertiary institutions on how the use of social media influences students' academic performance, social skills and sleep quality.

Finally, the implications of this study can influence some decisions universities would have to take in line with students' overall academic wellbeing, social skills and sleep quality. The study's conclusions could influence the regulations surrounding technology use in classrooms. With this data, policymakers may be able to establish rules or guidelines that promote responsible social media use among students, helping them balance their online activities with their academic responsibilities.

1.7 Limitation

Concerning the limitations of the study, the information gathered relied exclusively on participant self-reports, this presents several challenges for the validity and reliability of the study's findings. Self-reported data are inherently subjective and susceptible to various biases, such as social desirability bias, recall bias, and inaccurate reporting. Participants may consciously or unconsciously exaggerate, underreport, or misinterpret their behaviours and experiences, leading to measurement errors. For example, students might understate their social media use or overestimate their sleep quality to present themselves in a more favourable light. To minimize this limitation, the researcher

incorporated Embedded/Concurrent Mixed Research design which involves collecting both quantitative and qualitative data simultaneously, with one method embedded within the other to complement and validate the findings. This method helps to triangulate findings and improve data accuracy.

For instance, while quantitative data on social media usage, sleep quality, and academic performance were gathered via self-report questionnaires, qualitative data such as open-ended questions were embedded concurrently. These qualitative components provide richer, contextualized insights and help cross-verify the accuracy and consistency of participants' responses. Furthermore, qualitative data can uncover nuances in social skills and sleep behaviours that may be overlooked in structured surveys.

By triangulating data from multiple sources and methods, the embedded mixed methods design reduces biases inherent in self-reports, enhances the validity of the results, and offers a more comprehensive understanding of the complex relationships among social media use, social skills, sleep quality, and academic outcomes.

1.8 Delimitation

This study was delimited to examining the relationship between social media usage, social skills, sleep quality, and academic performance (measured by Grade Point Average) among students at the University of Education, Winneba, in Ghana. Specifically, it focused on identifying variations in the frequency and purpose of social media usage and their associations with students' social skills sleep habits and academic performance. The study was confined to one institution, thereby excluding comparative analyses with other universities. Participants were drawn exclusively from the University of Education, Winneba, and included a cross-sectional representation of the student population, namely undergraduate, graduate, and postgraduate students across all academic departments. By restricting the study to enrolled students within

this single university, the research aimed to provide an in-depth understanding of social media habits on academic performance, social skills and sleep health of students within a unified academic culture and policy environment. Furthermore, the study relied on self-reported data, which may be subject to personal bias or inaccuracies in recall, but this methodological choice was deemed appropriate for exploring subjective constructs such as perceived sleep quality and self-assessed social skills. The scope did not include faculty perspectives, clinical assessments, or longitudinal tracking of academic outcomes. These delimitations were necessary to maintain the study's feasibility and to ensure focused exploration of the key variables within the target academic setting.

1.9 The organizational Plan of the Study

The study was made up of five chapters. The background, statement of the problem, purpose of the study, research questions of the study, significance of the study, limitation and delimitation, definition of terms were given in Chapter One. Carefully selected articles were reviewed in Chapter two, with an emphasis on study-related subheadings and theoretical framework that pertains to the study. The methodology, population and sample, samples and sampling technique, research design ad instrument, reliability and validity, data collection procedures, method of data analysis, and ethical principles were covered in Chapter Three. Chapter Four contained the data results and discussions. Ultimately, based on the study's findings, Chapter Five provided a summary of the conclusions, comments, recommendations, and suggestions for further studies.

1.10 Definition of Terms

Social Media: Social media is a broad term for Internet-based platforms that enable users to create, share, and exchange information and ideas within virtual communities. It can also be termed as a category of technology and websites that offers a forum for information access, idea sharing, and conversation (Long Xu, Zhu, Sharma, & Zhao, 2015; Sekar & Sudhira 2017). In this study, social media encompasses a range of platforms, including Instagram, YouTube, Facebook, Twitter (now known as X), TikTok, Pinterest, Snapchat, and LinkedIn, which students use for sharing ideas, information, and entertainment.

Social media usage: Refers to the way individuals or groups engage with social media platforms to create, share, interact with, or consume content. This includes activities like posting updates, liking or commenting on others' content, messaging, joining online communities, and following trends or news Grover (2025).

Academic use of social media; this refers to how students use social media platforms to support their learning, studying, research, and academic collaboration. It focuses specifically on how students integrate social media into their educational activities, not just for entertainment or social interaction

Academic Performance:

In this study, academic performance is mainly Cumulative Grade Point Average (CGPA) of university students which is classified as Pass, Third-Class, Second-Class Lower, Second Class Upper and First Class.

Social Skills: Social skills are the abilities students use to interact and communicate effectively with others. They help students build and maintain healthy relationships, work well in groups, and navigate social environments respectfully and confidently (Jayanti et al, 2025)

Key Aspects of Social Skills:

- **Communication;** Speaking clearly, listening actively, and responding appropriately.
- **Empathy;** Understanding and sharing the feelings of others.
- **Cooperation;** Working well with others to achieve a common goal.
- **Respect;** Showing consideration for others' thoughts, feelings, and boundaries.
- **Self-regulation;** Managing one's own emotions and behaviours in social settings.
- **Interpersonal Skills;** The ability to build and maintain healthy, positive relationships through cooperation, trust, and respect.
- **Cooperation and Teamwork;** Working effectively with others, sharing responsibilities, and contributing to group goals.

Sleep Quality: Sleep quality refers to how well participants sleep not how long. It measures how restful, restorative, and uninterrupted sleep is, and whether one feels refreshed and alert the next day.

The National Sleep Foundation (NSF) asserts that getting enough sleep is critical to one's health and wellness. Humans require sleep to survive, making it an active and essential process (Paiva, 2015). According to Gomes, Quinhones, and Engelhardt (2010), sleep is defined as a physiological event of periodic, normal brain activity during which the state of consciousness shifts, decreasing receptivity to external stimuli and resulting in particular motor and bodily postures as well as autonomous alterations.

Key Components of Sleep Quality:

1. **Sleep latency** – How long it takes for one to fall asleep after going to bed.
2. **Sleep duration** – Total time spent asleep (duration alone does not define quality)

3. **Sleep continuity** – How often one wakes up during the night and how long he/she stays awake.
4. **Sleep efficiency** – The time in bed actually spent sleeping (not lying awake).
5. **Feeling rested** – How refreshed and energized one feels upon waking up.

Ways of measuring Sleep Quality:

- **Subjectively:** Through self-report tools like Questionnaire adapted from Zahid et al., (2019) and Vladimir (2018). In this research, the subjective method was employed to measure sleep quality.
- **Objectively:** Using sleep trackers, actigraphy, or polysomnography (sleep studies)



CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

According to Alvesson & Deetz (2020), the foundation of any meaningful research lies in the accumulation of knowledge through critical engagement with prior studies. This chapter applies that principle by systematically reviewing existing literature related to social media use (SMU), sleep quality, and social skills and their collective influence on academic performance among university students. Using the frameworks of Uses and Gratifications Theory (UGT) and Sleep and Circadian Rhythms Theory, the chapter synthesizes psychological, behavioural, and physiological perspectives. The review not only assesses empirical and theoretical contributions but also highlights methodological limitations and research gaps and establishes a rationale for the current study.

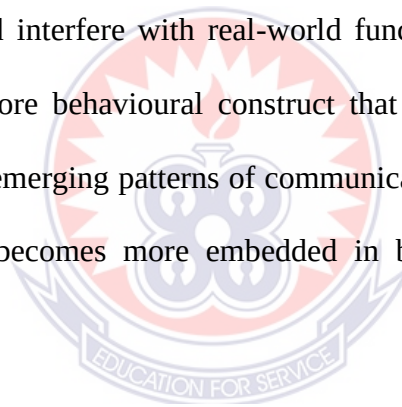
2.2 Theoretical Framework

This section reviews key concepts of the study, including social media use, digital engagement patterns, sleep quality, social skills, and academic performance.

2.2.1 Social Media Use (SMU)

Social Media Use (SMU) refers to the behavioural, cognitive, and emotional engagement individuals have with social networking platforms such as Instagram, TikTok, WhatsApp, X (formerly Twitter), Facebook, and Snapchat. The concept encompasses the frequency, duration, intensity, and type of interaction that users maintain with these platforms. SMU can be further classified by engagement style: active use, which includes posting, commenting, and messaging; and passive use, such as browsing and scrolling without direct interaction (Verduyn et al., 2017).

The motivation behind social media use varies widely among individuals, ranging from entertainment and self-expression to information seeking and social connection (Whiting & Williams, 2013). These motivations often dictate both the form and impact of SMU on the user. Technological affordances such as immediacy, interactivity, and personalization further shape user behaviour and platform dependency. Research has increasingly linked SMU with psychological outcomes such as emotional regulation, mood, and perceived social support (Ellison et al., 2007). However, concerns have been raised regarding compulsive or problematic use, where users exhibit symptoms such as an inability to disconnect, constant checking, and preoccupation with online interactions (Kuss & Griffiths, 2011). This problematic usage can impact mental health, reduce productivity, and interfere with real-world functioning. In academic contexts, SMU is considered a core behavioural construct that intersects with digital culture, identity formation, and emerging patterns of communication. Its relevance continues to grow as social media becomes more embedded in both personal and institutional spaces.



2.2.2 Academic Performance

Academic performance refers to the measurable outcomes that reflect a student's success in formal education settings. It encompasses both quantitative indicators—such as grades, grade point average (GPA), test scores, and qualitative aspects, including class participation, critical thinking, and learning engagement (York, Gibson, & Rankin., 2015). In higher education, academic performance serves as a proxy for a student's ability to integrate knowledge, apply learning strategies, and achieve institutional learning outcomes. Traditionally, academic performance has been attributed to factors such as cognitive ability, study habits, motivation, and instructional quality. However, contemporary educational research emphasizes the role of

psychosocial and behavioural influences, such as time management, emotional regulation, goal orientation, and learning environment (Richardson et al., 2012). With the integration of technology in education, digital behaviours have also become influential. Access to digital resources can enhance learning opportunities and foster collaboration, while distractions from non-academic online activity can detract from cognitive focus and academic persistence. Hence, academic performance is increasingly evaluated in relation to the student's media habits, study environment, and engagement with digital tools. In research and policy contexts, academic performance is often used as a dependent variable to evaluate the effectiveness of educational interventions, learning technologies, and behavioural predictors. Its centrality in educational assessment makes it a vital construct for both theoretical investigation and practical decision-making.

2.2.3 Social Skills

Social skills refer to the set of learned behaviours that facilitate effective, appropriate, and rewarding interactions with others. These include both verbal skills (e.g., articulation, turn-taking, assertiveness) and non-verbal skills (e.g., eye contact, body language, tone modulation). Foundational elements of social skills also include empathy, emotional regulation, active listening, and conflict resolution (Riggio, 1986). Social skills are critical across academic, occupational, and interpersonal domains. They are shaped by both early-life socialization and ongoing experiences, particularly those involving face-to-face interaction, peer feedback, and emotional exposure. Deficits in social skills can lead to misunderstandings, social isolation, or poor collaboration outcomes. In contemporary society, the role of digital communication in shaping social skills has become a key concern. While digital environments provide new opportunities for connection and expression, scholars have raised concerns about

the potential erosion of real-time social competencies, especially among young adults who favour mediated interactions. Reduced practice in interpreting non-verbal cues, managing spontaneous conversation, or engaging in unfiltered dialogue can impair relational depth and empathy (Caplan, 2010). Research distinguishes between expressive and receptive components of social skills, both of which are essential for mutual understanding and relationship-building. Social skills are often measured through observational assessments, peer evaluations, and standardized inventories like the Social Skills Inventory (SSI). As a psychological construct, social skills serve as both outcome and predictor variables in studies of communication effectiveness, emotional intelligence, and social well-being.

2.2.4 Sleep Quality

Sleep quality is a multifaceted concept that encompasses both subjective perceptions and objective indicators of sleep health. It is typically defined by dimensions such as sleep duration, sleep latency (the time it takes to fall asleep), sleep efficiency (time spent asleep versus time in bed), the number of nocturnal awakenings, and restfulness upon waking (Buysse et al., 1989). High-quality sleep is characterized not merely by sufficient hours of rest but by continuity, depth, and the absence of disturbances. Subjective assessments of sleep quality are often captured through validated instruments such as the Pittsburgh Sleep Quality Index (PSQI), while objective measures may include actigraphy or polysomnography. In young adult populations, particularly university students, poor sleep quality is widespread and often linked to lifestyle choices, academic stress, irregular routines, and digital behaviours (Lund et al., 2010). Sleep quality is vital to cognitive functioning, emotional regulation, and physical health. Deficits in sleep quality can impair attention, memory consolidation, and decision-making, and have been associated with mood disorders, immune suppression,

and metabolic issues (Walker, 2009). Moreover, chronic poor sleep has been identified as a risk factor for academic underperformance and increased psychological distress. As a research construct, sleep quality is both a health outcome and a mediator in studies exploring behavioural risk factors, including caffeine consumption, screen exposure, and bedtime routines. Understanding sleep quality requires attention to both internal (e.g., physiological) and external (e.g., environmental and behavioural) influences.

2.2.5 Digital Engagement Patterns

Digital engagement patterns refer to the distinct behaviours and temporal rhythms through which individuals interact with digital platforms and devices. These patterns are characterized by variables such as frequency of use, duration, intensity, platform preference, and time of day particularly engagement during pre-sleep hours or academic periods (Oulasvirta et al., 2012). Within digital media research, engagement is broadly divided into two categories: active engagement, which involves deliberate interaction such as posting, commenting, or direct messaging, and passive engagement, which includes scrolling, lurking, or browsing without interaction (Verduyn et al., 2017). Active digital behaviours are often associated with higher levels of social connectivity and user satisfaction, while passive patterns are linked to emotional fatigue, social comparison, and lower well-being (Appel, Gerlach, & Crusius, 2016). Digital engagement is not only behavioural but also psychological, as it reflects attentional focus, emotional investment, and cognitive effort. Studies have examined how different engagement styles correlate with outcomes such as attention span, academic distraction, emotional reactivity, and compulsive behaviour. This concept is particularly relevant in studies of university students, whose digital behaviours are embedded within learning, socializing, and coping routines. Understanding the nuances of digital engagement allows researchers to distinguish between purposeful and

problematic usage and to assess the psychological and academic implications of various digital habits.

2.3 Theoretical review

This section presents the theoretical frameworks underpinning the study: Uses and Gratifications Theory and Sleep and Circadian Rhythms Theory. These frameworks offer a theoretical basis for understanding key research variables: social media use, sleep quality, social skills, and academic performance among university students

2.3.1 Uses and Gratifications Theory (UGT)

Uses and Gratifications Theory (**UGT**), developed by Katz, Blumler, and Gurevitch (1973), presents media users as active, goal-oriented individuals who select content to satisfy specific psychological, social, or emotional needs such as entertainment, information, identity expression, or social connection. Unlike earlier passive audience theories, UGT emphasizes user agency and decision-making in media consumption. The theory has remained highly relevant in the digital era, especially with the rise of interactive and customizable platforms like Instagram, TikTok, and WhatsApp. Scholars such as Ruggiero (2000) have highlighted how the internet expanded UGT's applicability, particularly in understanding how university students use social media for academic collaboration, peer support, and self-presentation (Whiting & Williams, 2013). A significant development in UGT research is the differentiation between active and passive media use. Active engagement such as posting, commenting, or messaging, is associated with greater emotional well-being and social connectedness (Verduyn et al., 2017; Burke & Kraut, 2016). In contrast, passive behaviours like scrolling or lurking are linked to negative outcomes, including social comparison, envy, and decreased emotional resilience (Appel et al., 2020). This contrast challenges UGT's assumption that users always successfully gratify their needs, prompting scholars to

revise the theory to incorporate not just motivations but also media outcomes and interaction quality (Sundar & Limperos, 2013).

Core Assumptions of Uses and Gratifications Theory (UGT)

The Uses and Gratifications Theory (UGT), developed by Katz, Blumler, and Gurevitch (1973), marks a significant departure from traditional media effects theories by conceptualizing media users as active agents who purposively engage with media to satisfy specific needs. The theory is built on five foundational assumptions that continue to guide research on media use in the digital era.

1. First, UGT assumes that media use is goal-directed and purposeful. Individuals approach media with defined cognitive, affective, or social objectives such as seeking information, entertainment, or social connection (Rubin, 2002). For example, students may use social media to unwind, find academic content, or maintain friendships.
2. Second, it posits that media selection is based on perceived utility. Users choose media platforms they believe will best fulfill their needs, guided by expectancy-value principles (Palmgreen & Rayburn, 1982). Thus, platform choice reflects anticipated benefits.
3. Third, the theory emphasizes that social and psychological factors mediate media use and effects. Personality traits, cultural background, emotional state, and social context all influence how individuals interpret and respond to media (Papacharissi & Rubin, 2000).
4. Fourth, UGT asserts that media compete with other sources of information and communication, such as interpersonal conversations or academic texts (McQuail, 2010). This highlights the multi-modal nature of gratification-seeking.

5. Finally, UGT maintains that users are autonomous in their media use. Individuals actively control their exposure and can accept, ignore, or resist content, reinforcing user agency (Blumler & Katz, 1974), though recent critiques question the extent of this autonomy in algorithm-driven environments (Bucher, 2018).

Collectively, these assumptions position UGT as a dynamic, user-centric framework highly applicable to modern media landscapes, including the analysis of social media's impact on student behaviour, academic outcomes, and well-being.

Uses and Gratification Antecedents in Social Media Engagement

The uses and gratifications Theory (UGT) theorizes that individuals actively seek out and select media to fulfil specific needs and gratifications. Within this framework, entertainment, informativeness, and irritation are considered as antecedents or motivations that drive individuals to consume social media content (Katz, Blumler, & Gurevitch, 1973).

Here's how each of these factors relates to the theory:

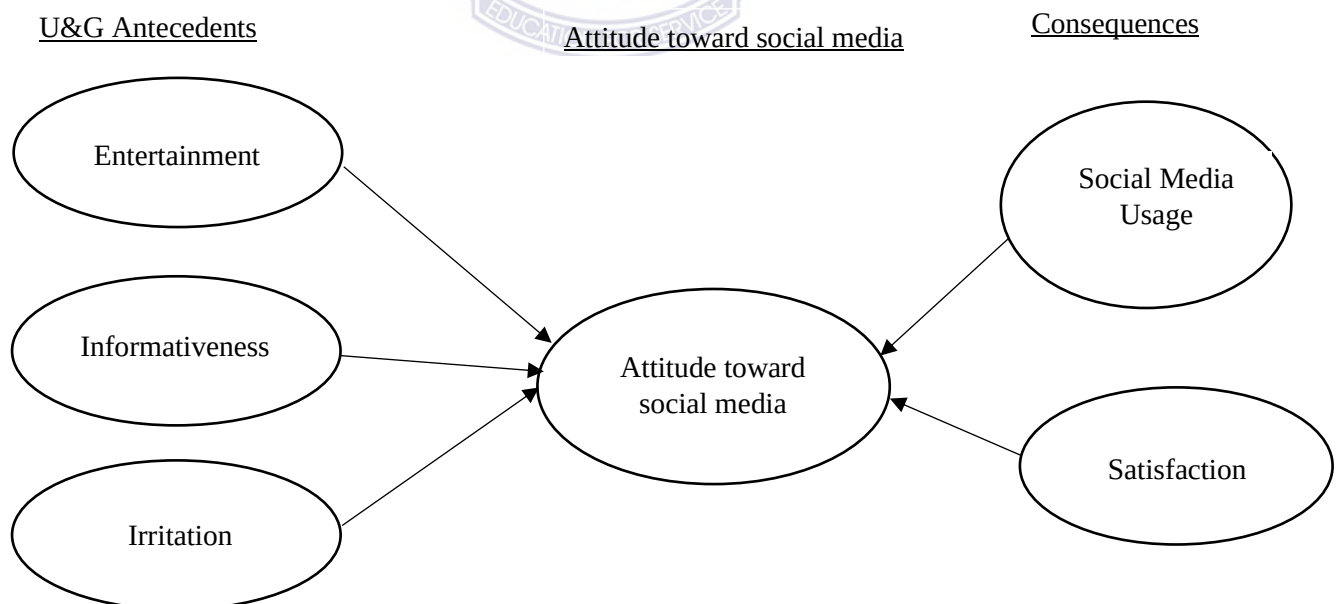


Figure 2.1: Uses and Gratification Theory Adapted from (Pensil, 2011)

2.3.1.1 Uses and Gratification Antecedents

Entertainment

Entertainment is one of the most prevalent motivations for social media use. It refers to users' desire for enjoyment, emotional release, or escapism. Platforms such as TikTok, Instagram, and YouTube provide content that helps users relax, distract themselves from stress, or elevate their mood (Rubin, 1983; Whiting & Williams, 2013). This aligns with hedonic gratifications, which are intrinsically motivated and primarily associated with the affective domain of UGT (Sundar & Limperos, 2013).

Informativeness

Informativeness reflects a cognitive gratification, wherein users engage with media to acquire knowledge, stay informed, or enhance learning. Social media platforms like Twitter, Reddit, LinkedIn, and YouTube serve as tools for real-time news, academic support, or professional development. For university students, informativeness represents a goal-oriented behaviour that facilitates both formal and informal learning (Stafford et al., 2004; Raza et al., 2017).

Irritation

Irritation, though less conventionally positive, also functions as a media use antecedent. It encompasses users' engagement with emotionally provocative or frustrating content, often driven by curiosity or the need to process conflicting views. Practices like doomscrolling demonstrate how users may be drawn to negative content, fulfilling needs related to emotional processing or ideological confrontation (Palmgreen & Rayburn, 1982; Meier et al., 2020). While not hedonically gratifying, irritation still aligns with UGT's broader principle of needs-based media engagement.

Critiques and Limitations of UGT

While UGT remains highly influential, it is not without criticism. One major limitation lies in its individualistic focus, which tends to neglect broader structural and socio-cultural determinants of media behaviour. McQuail (1987) argued that UGT underestimates the role of institutional and technological constraints, such as content algorithms, peer norms, and digital surveillance, all of which shape user experience and limit true autonomy. Another issue is UGT's heavy reliance on self-reported data, which may not accurately capture user motivations or behaviour due to social desirability bias or incomplete introspection (Palmgreen & Rayburn, 1980; Rathnayake & Winter, 2018). The rise of algorithm-driven platforms further complicates matters, as users may not fully understand why certain content is promoted or how their engagement is shaped by platform design. Recent scholars have called for the integration of objective behavioural data, platform affordances, and contextual variables to strengthen UGT's explanatory power (Wohn & Bowe, 2016).

Applying Uses and Gratifications Theory (UGT) to current study

Uses and Gratifications Theory (UGT) provides a valuable framework for analyzing how university students engage with social media to fulfill specific psychological and academic needs. Students often use platforms like TikTok or Instagram before bed to relax or connect socially; however, such behaviours frequently result in sleep disruption due to blue light exposure, cognitive arousal, and compulsive checking driven by Fear of Missing Out (FoMO) (Chang et al., 2015; Exelmans & Van den Bulck, 2016; Kuss & Griffiths, 2017). This highlights a key paradox: gratifications sought such as relaxation often result in gratifications lost, such as poor sleep. UGT also explains social media's role in shaping social competence. Intentional engagement on platforms allows students to express emotions, practice empathy, and maintain relationships,

especially during developmental transitions (Subrahmanyam & Šmahel, 2011). However, over-reliance on digital validation can hinder offline social confidence and relational depth (Nesi & Prinstein, 2015). In academic contexts, students use social media for instrumental gratifications such as collaborative learning and information sharing (Raza et al., 2017). Yet the dual-use nature of platforms means that academic intentions are often undermined by entertainment distractions. UGT thus highlights the importance of understanding not only time spent online, but also motivation, usage patterns, and platform affordances in evaluating digital behaviour.

In conclusion, Uses and Gratifications Theory continues to offer valuable insights into student media use, particularly in the domains of sleep, social development, and academic engagement. While the theory has limitations, particularly its individualistic assumptions and reliance on self-report, it remains a flexible and relevant framework. In examining the alignment (or misalignment) between gratifications sought and gratifications obtained, UGT helps researchers understand the complex ways in which digital media shapes student life in both beneficial and detrimental ways.

2.3.2 Sleep and Circadian Rhythms Theory

Sleep and Circadian Rhythms Theory offers a robust and biologically grounded framework for understanding the mechanisms regulating sleep and the consequences of its disruption. Central to the theory is the interaction between two processes: the homeostatic sleep drive (Process S) and the circadian rhythm (Process C) (Borbély, 1982; Daan, Beersma, & Borbély, 1984). The homeostatic process reflects the progressive build-up of sleep pressure with sustained wakefulness, while the circadian rhythm, governed by the suprachiasmatic nucleus (SCN) in the hypothalamus,

coordinates the timing of sleep and wakefulness in alignment with the 24-hour light-dark cycle (Czeisler & Gooley, 2007).

Circadian rhythms are entrained by external time cues known as zeitgebers, the most influential being light. Exposure to blue-wavelength light, particularly during the evening, can suppress melatonin secretion, a hormone critical for sleep initiation thereby resulting in delayed sleep onset and circadian misalignment (Chang et al., 2015). Repeated disruptions to these processes can manifest in disorders such as Delayed Sleep-Wake Phase Disorder (DSWPD), which are especially prevalent among adolescents and university students due to irregular schedules and nocturnal behaviours (Crowley et al., 2007).

Sleep and Circadian Rhythms Theory provides a physiological basis for understanding phenomena such as sleep deprivation, social jetlag, and the pervasive impact of modern lifestyles on sleep architecture. However, its focus on biological determinism has drawn criticism for underemphasizing the role of psychosocial and environmental factors, including stress, technology use, and behavioural habits (Harvey et al., 2008). In response, contemporary research advocates for an integrated biopsychosocial model that combines chronobiology with cognitive-behavioural principles. This interdisciplinary approach recognizes that although circadian processes are biologically rooted, they are highly susceptible to modification through behaviour, light exposure, and routine stabilization.

Application of Sleep and Circadian Rhythms Theory to the Current Study

The theoretical principles of Sleep and Circadian Rhythms Theory have been increasingly applied to contemporary research examining the effects of social media use on sleep quality, and, by extension, on academic performance and social skills among university students. This application is especially pertinent, given the rise in late-night digital engagement and the growing body of evidence linking media behaviour with sleep disturbances. University students often use social media platforms such as Instagram, TikTok, and WhatsApp during pre-sleep hours. According to circadian theory, this behaviour interferes with both Process S and Process C. The blue light emitted by smartphones suppresses melatonin, delaying the biological night and impairing sleep initiation (Chang et al., 2015). Concurrently, emotionally stimulating or socially interactive content increases cognitive arousal, making it harder for the body to transition into sleep (Levenson et al., 2017).

The theory also elucidates how chronic circadian disruption affects broader cognitive and social functions. Poor sleep quality resulting from misaligned circadian rhythms impairs executive functioning, attention regulation, and emotional stability, factors that are integral to academic performance and social competence (Palmer et al., 2024). Empirical studies support this linkage; students who experience delayed sleep timing or insufficient sleep often report poorer academic outcomes, reduced social engagement, and difficulty managing peer relationships (Beattie et al., 2015). A key concept derived from this framework is social jetlag, which describes the discrepancy between an individual's biological clock and socially imposed schedules. Students who stay up late on weekends using social media but must rise early during the week for academic commitments suffer from circadian misalignment, which contributes to cognitive fatigue, decreased motivation, and inconsistent academic engagement (Roenneberg et

al., 2019). In applying social media use within the Sleep and Circadian Rhythms framework, researchers can better identify causal mechanisms linking digital behaviour to sleep-related and functional impairments. Moreover, this theory provides a foundation for designing bio-behavioural interventions, such as implementing screen curfews, using blue light filters, promoting morning light exposure, and fostering consistent sleep-wake cycles to mitigate the negative effects of media use.

In summary, Sleep and Circadian Rhythms Theory not only explains the physiological impact of nighttime social media use but also connects these effects to educational and interpersonal outcomes. Its integration into media and health research enables a holistic understanding of how modern digital lifestyles intersect with fundamental biological processes.

2.4 Empirical Review

2.4.1 Relationship between University Students' Academic Performance and Their Social Media Usage, Social Skills, and Sleep Quality

University students' academic performance is influenced by a range of behavioural and psychosocial factors, with growing research attention on social media usage (SMU), social skills, and sleep quality. While moderate, purpose-driven SMU can enhance academic collaboration and access to information (Tafesse, 2022), excessive or unfocused use is associated with reduced concentration and productivity (Abd Rahim et al., 2021). Social skills, including communication, empathy, and teamwork, are also critical for academic success, enabling students to engage in peer learning and build support networks (Tabassum et al., 2020). Additionally, sleep quality being a physiological and cognitive variable, is closely linked to academic outcomes, with poor sleep impairing attention, memory, and emotional regulation essential for learning

(Walker, 2017). This review explores how these three interconnected factors shape academic performance in contemporary student life.

2.4.1.1 Academic Performance and Social Media Usage

The relationship between social media use (SMU) and academic performance among university students continues to be a focal point of research investigation. As digital platforms like Facebook, WhatsApp, TikTok, Telegram, and YouTube become increasingly embedded in students' academic and social lives, their influence on learning outcomes has grown more complex. Empirical studies reveal a multifaceted relationship, with both beneficial and detrimental consequences depending on the frequency, purpose, content type, and user behaviour. A growing body of literature suggests an inverted U-shaped relationship, where moderate SMU is associated with academic gains, but excessive use is linked to declining performance (Tafesse, 2022; Abd Rahim et al., 2021). A study by Tafesse (2022) demonstrated that students who used social media for up to 90 minutes per day had higher GPAs compared to those who either underused or overused these platforms. Similarly, Abd Rahim et al. (2021) observed that social media used for collaborative purposes such as group projects and academic discussions enhanced students' study efficiency and positive learning experiences. However, when daily use exceeded two hours, the likelihood of digital fatigue and cognitive overload increased, adversely affecting academic outcomes. These findings are consistent with the study by Huang (2018) which conducted a meta-analysis of over 21,000 students and found a small but statistically significant negative correlation between general SMU and academic performance ($r = -0.07$). Huang noted that time spent on platforms ($r = -0.10$) had a greater negative effect than frequency of access ($r = -0.01$), and that passive use (e.g., scrolling) was more detrimental than active use (e.g., academic posting). This complex relationship was further elaborated in

Su and Huang's (2021) structural equation modelling study of 307 Chinese university students, which found that SMU did not directly predict GPA. Instead, academic engagement: participation in class discussions, time on tasks, and intellectual curiosity acted as a mediating variable. Constructive uses of social media supported academic engagement and improved academic outcomes, whereas passive or recreational usage undermined it. Platform-specific studies add another layer of understanding. Zavala et al. (2023) revealed that using YouTube for educational content positively influenced GPA among Hispanic students, while overreliance on Facebook for non-academic news consumption was linked to decreased academic focus and cognitive fragmentation (Fuchs, 2017; Junco, 2012). These results suggest that not all platforms or usage patterns have uniform effects.

Psychological variables such as self-regulation and self-esteem are also critical in moderating the academic outcomes of SMU. Wanjohi, Mwebi, and Nyang'ara (2015) found that Kenyan students with high self-regulation were able to use Facebook for academic purposes without adverse effects. In contrast, those with lower self-regulation engaged in procrastination and aimless browsing, which disrupted their academic routines. This aligns with Media Self-Regulation Theory (LaRose & Eastin, 2004), which posits that self-monitoring is essential to avoid impulsive and time-wasting behaviours. Li et al. (2021) also demonstrated a negative correlation between low self-control and problematic internet use. Similarly, multitasking between academic tasks and social media has been shown to reduce comprehension, working memory, and task performance (Rosen et al., 2013). Self-esteem has emerged as another mediating factor. Al-Menayes (2015) found that students with higher self-esteem used social media constructively for professional networking and academic content sharing while those with lower self-esteem often sought validation and engaged in social comparison.

Vogel et al. (2014) and Andreassen et al. (2017) confirmed that low self-esteem increases vulnerability to digital addiction and academic disengagement. These findings highlight the importance of psychological support services, such as confidence-building programmes and mental health interventions, to improve students' digital behaviours and academic success.

Complementing these findings, Muhammad and Khalida (2023) observed that among 234 university students, those who used platforms like Telegram and Facebook for educational purposes reported better academic outcomes. Similarly, Joshi (2022) noted that students, being among the largest users of mobile devices, often exploit SMU for flexible learning and quick access to educational resources. Seigha et al. (2023) found that 36.84% of students at the University of Africa, Toru-Orua, used YouTube and WhatsApp for academic purposes. However, the same study noted that 29.82% of students reported academic decline due to excessive social media engagement thereby underscoring the dual impact of these platforms. Danso et al. (2023) provided further evidence from Ghana, revealing through qualitative interviews that students benefit from online information access but often suffer from academic underperformance, social isolation, and reduced motivation due to excessive use. In a more structured approach, Nurudeen et al. (2023) proposed a Social Media Influence Factor (SMIF) model based on data from 623 students at the University of Professional Studies, Accra. Their findings showed a statistically significant negative correlation between GPA and factors like time spent on social media, group memberships, and notification frequency. The model accounted for 30.7% of GPA variance, affirming that SMU behaviours can predict academic outcomes.

Additional studies affirm the role of behavioural patterns in mediating SMU effects. Shahjahan et al. (2021) identified a significant association between poor academic performance and excessive chatting, irregular class attendance, and smartphone addiction among Bangladeshi undergraduates. Alaika et al. (2020), using the Bergen Social Media Addiction Scale (BSMAS), found that over half of Moroccan university students showed signs of addiction, which negatively affected academic, relational, and psychological well-being. Similarly, Habes et al. (2018) observed that students in Middle Eastern universities spent up to 12 hours daily on social media. While this fostered creativity and collaboration in some, it also distracted others from academic focus and moral engagement. In a recent study, Caratiquit and Caratiquit (2023) applied Partial Least Squares Structural Equation Modelling (PLS-SEM) to assess how academic procrastination mediates the relationship between social media addiction and academic performance. The study, based on 223 Filipino secondary school students, found a strong positive correlation between SMU and procrastination, which in turn was negatively associated with academic achievement. This mediating pathway illustrates how behavioural variables can amplify the academic risks of SMU.

Overall, existing research affirms that social media use is neither inherently beneficial nor inherently harmful to academic performance. Its impact is shaped by a complex interaction of factors, including time spent, platform type, content quality, user intent, and psychological traits like self-regulation and self-esteem. Moderate, purposeful use aligned with academic goals especially in collaborative or informational contexts can enhance academic performance (Tafesse, 2022; Abd Rahim et al., 2021). Conversely, unstructured, prolonged, or entertainment-focused use tends to correlate with cognitive overload, reduced academic focus, and disengagement (Huang, 2018; Wanjohi et al., 2015). Given these findings, universities should avoid blanket restrictions on SMU.

Instead, they should adopt constructive integration models, embedding social media into the learning environment in structured ways. For example, educators can use WhatsApp groups for assignment coordination, Facebook groups for class discussions, or YouTube playlists curated for course topics. Simultaneously, they should offer training on digital self-regulation, media literacy, and mental well-being to help students use these tools strategically.

2.4.1.2 Academic Performance and Social Skills

Social skills, or more broadly, social competence, encompass a wide spectrum of interpersonal abilities such as effective communication, empathy, emotional regulation, collaboration, and conflict resolution. In the context of higher education, these skills are increasingly recognized as integral to academic performance and engagement. While traditionally regarded as "soft skills," research now situates social competence as a foundational component of academic success, particularly in learning environments that emphasize group work, discussion-based learning, and peer collaboration (Jones et al., 2015). Academic success at the university level demands more than intellectual aptitude. Students are expected to collaborate in teams, present ideas, participate in group assessments, and interact constructively with peers and faculty. Socially competent students tend to engage more actively, communicate more effectively, and build support networks that bolster both cognitive and emotional resilience. In this context, academic engagement encompassing behavioural, emotional, and cognitive involvement, is often higher among students who possess strong social skills. These students are more likely to take initiative in learning, manage classroom dynamics, and resolve interpersonal challenges, all these behaviours support and sustained academic achievement (Bhardwaj et al., 2025).

Empirical studies have consistently confirmed a positive association between social competence and academic outcomes. In a large-scale study by Tabassum, Akhter, and Iqbal (2020) involving 4,708 undergraduate students in Pakistan found a statistically significant correlation between social competence and GPA. Their analysis further disaggregated social competence into subdomains interpersonal communication, emotional regulation, cooperation, and adaptability with communication and emotion regulation emerging as the strongest predictors of academic performance. Students who can communicate effectively are better equipped to articulate ideas, contribute in discussions, and seek academic help when needed. Likewise, emotional regulation enhances the ability to manage academic stress, persevere through setbacks, and maintain motivation are critical traits for academic persistence. Notably, Tabassum, Akhter, & Iqbal (2020) also observed gendered patterns: female students scored higher in empathy and emotional regulation and exhibited more consistent academic performance. While these findings offer insights into gendered socialization, the authors caution that cultural norms likely shape both social behaviours and self-reported competence.

The relationship between social competence and academic achievement is often indirect rather than strictly linear. A study by Malik, Ahmed, and Riaz (2025) among Pakistani university students found that social competence did not directly predict GPA, but rather exerted its influence through the quality of interpersonal relationships. Socially skilled students were better able to build supportive networks with peers and faculty, which in turn improved academic outcomes by facilitating knowledge sharing, emotional support, and collaborative learning. These findings align with social capital theory, which posits that the resources embedded in social networks such as information, mentorship, and encouragement can significantly influence educational

attainment (Rüppel, Liersch, and Walter, 2015). In higher education contexts, social capital often manifests as peer study groups, mentoring relationships, or constructive faculty-student engagement. These relationships are not merely peripheral; they create feedback-rich, emotionally supportive environments that enable students to persist through academic challenges. Students with high social competence tend to navigate these networks more effectively, making them more likely to receive help, gain access to resources, and develop a sense of academic belonging.

The findings from Malik et al. (2025) underscore a critical implication for educators and policymakers: developing social competence should be an intentional component of higher education. While universities have traditionally emphasized content mastery and intellectual development, the inclusion of social-emotional learning (SEL) frameworks at the tertiary level is increasingly warranted. Embedding SEL into the curriculum can be achieved through reflective group assignments, communication workshops, and peer dialogue assessments. These methods not only support academic development but also reinforce collaborative behaviours and strengthen social bonds, factors that improve academic persistence and reduce dropout risks (Tinto, 2019). Faculty engagement initiatives such as structured office hours, mentorship programs, and small group tutorials can also foster meaningful relationships that boost academic identity and motivation. One promising avenue for operationalizing social competence within academic settings is the structured peer mentoring model. Peer mentoring pairs experienced or academically successful students with newcomers or those in need of support. This arrangement creates a reciprocal learning environment in which mentors reinforce their own academic understanding while mentees gain personalised support. Rooted in Vygotsky's (1978) socio-cultural theory, which emphasizes the cognitive benefits of social interaction and scaffolding, mentoring enhances communication,

confidence, and emotional resilience. Moreover, mentoring programs contribute to a positive academic climate. Communication training embedded in mentoring also enhances transferable skills such as public speaking, active listening, and negotiation skills that extend beyond academia into professional life. Complementary to mentoring, collaborative learning strategies such as problem-based learning, interdisciplinary group projects, and reflective dialogues further reinforce the value of social competence. These pedagogical approaches validate diverse perspectives, encourage critical thinking, and cultivate inclusive classrooms. They also align with real-world workplace expectations, preparing students to function effectively in team-based environments.

In conclusion, social competence significantly contributes to academic performance, albeit often through indirect and mediated pathways. Rather than being a mere "soft skill," social competence enhances academic engagement by facilitating interpersonal collaboration, emotional regulation, and access to social capital. Empirical evidence from studies such as Tabassum et al. (2020), and Malik et al. (2025), confirm that students with strong interpersonal abilities are better positioned to navigate the demands of academic life whether through more effective peer collaboration, stronger faculty rapport, or enhanced classroom participation. Universities should thus treat social competence development as central to their academic mission. Through integrated SEL programming, peer mentoring, communication training, and collaborative learning design, institutions can foster not only better academic outcomes but also more equitable and inclusive educational environments.

2.4.1.3 Academic Performance and Sleep Quality

Sleep quality has emerged as a critical factor influencing academic performance in higher education. University students, who often face a combination of increased autonomy, academic pressure, and lifestyle changes, are particularly vulnerable to sleep disturbances. The growing body of evidence shows that poor sleep quality is consistently associated with lower academic outcomes, including decreased GPA, impaired concentration, and reduced academic retention (Hirshkowitz et al., 2015). A recent systematic review and meta-analysis by Nakie et al. (2024) focused on sleep quality among students in African universities, synthesizing data from multiple empirical investigations. The study revealed a high prevalence of poor sleep, often driven by academic stress, irregular sleep schedules, and nighttime digital media use. Notably, the meta-analysis established a significant negative correlation between poor sleep and academic achievement, emphasizing the adverse effects of chronic sleep deprivation on cognitive functioning and academic persistence. The review further identified socioeconomic stress, academic overload, and digital screen exposure as contextual contributors to sleep impairment. These factors exacerbate the cognitive consequences of poor sleep by undermining attention, memory consolidation, and emotional regulation functions essential for effective academic performance (Walker, 2017). Nakie et al. (2024) concluded that interventions at the institutional level, including sleep education, mindfulness training, and policies promoting healthier work-life balance, are critical to mitigating sleep-related academic decline. These regional findings mirror broader global research. Hirshkowitz et al. (2015), in a landmark international review, confirmed the robust and cross-cultural link between poor sleep quality and reduced academic performance. Importantly, the effects of sleep deprivation extend beyond temporary cognitive lapses; chronic insufficient sleep is associated with

long-term executive dysfunction, reduced psychological resilience, and increased risk of university attrition (Lo et al., 2016). This positions sleep quality as a central, yet often neglected variable in academic success models.

Beyond cognitive function, sleep quality is intimately tied to emotional regulation and psychological health, both of which influence academic motivation and persistence. A systematic review by Lo et al. (2016) found that students with poor sleep quality report significantly higher levels of anxiety, depression, and emotional instability. These psychological states negatively affect academic focus and increase procrastination, leading to reduced academic performance. The study highlighted a bidirectional relationship between emotional well-being and sleep: poor mental health impairs sleep, and poor sleep exacerbates psychological distress—creating a cycle that undermines academic engagement. This evidence suggests that interventions to improve sleep quality could indirectly enhance academic performance by alleviating psychological barriers to learning. Therefore, addressing sleep becomes not only a cognitive or physiological issue but also a strategy to support student mental health and emotional resilience.

In response to this growing evidence, recent research has begun to explore intervention programs aimed at improving sleep behaviors among university students. These strategies are increasingly systemic and preventive rather than individualistic, emphasizing the role of institutional support in shaping student sleep habits. For instance, Chang et al. (2015) demonstrated that combining wearable sleep trackers with brief coaching sessions led to more consistent sleep behavior and greater awareness of how sleep patterns affect academic productivity. Mobile health (mHealth) solutions now offer scalable platforms to monitor, assess, and guide student sleep habits. Many universities have begun integrating sleep literacy modules into first-year orientation and

health programs, fostering a campus culture that promotes wellness alongside academic excellence.

These intervention studies underscore the need for higher education institutions to reframe sleep quality not as a personal issue but as a structural determinant of academic success. Just as universities invest in academic advising and mental health services, they should also support students through targeted sleep initiatives, including sleep assessments, flexible course timetabling, and digital hygiene workshops. In addition, institutions can implement sleep-friendly policies, such as avoiding early morning exams or offering alternative schedules for students with documented sleep disorders. Faculty development programs can educate instructors on how to support students experiencing sleep-related challenges without compromising academic standards. Such integrated approaches can help build a holistic academic ecosystem that values cognitive health, emotional well-being, and lifestyle balance. Furthermore, the inclusion of sleep quality as a core variable in academic research models is both timely and necessary. Too often, predictive models of academic success emphasize study habits, motivation, and instructional quality while overlooking the foundational role of sleep.

In conclusion, sleep quality is an essential but underappreciated component of academic performance in higher education. The evidence is clear: poor sleep impairs cognitive function, reduces emotional stability, and increases academic risk. Moreover, effective sleep-related interventions have been shown to improve GPA, enhance focus, and promote mental well-being. As universities face increasing demands for academic performance, equity, and student retention, sleep must be recognized as a central pillar of academic support. Institutions that promote sleep literacy, adopt flexible scheduling, and invest in wellness infrastructure are likely to see not only academic benefits but

also broader improvements in student engagement, retention, and post-graduate outcomes.

2.4.2 Influence of Social Media Use on Social Skills Among University Students

Over the last two decades, social media has fundamentally altered how university students communicate, establish relationships, and construct social identities. Platforms such as Instagram, WhatsApp, X (formerly Twitter), Snapchat, Facebook, and TikTok are now embedded in students' daily routines, shaping how they express emotions, perceive social norms, and engage with peers (Keles et al., 2020; Yang & Lee, 2020). This transformation has prompted extensive research into how social media usage (SMU) affects social skills, defined broadly to include verbal and nonverbal communication, empathy, assertiveness, emotional regulation, and the ability to form and maintain interpersonal relationships (Uhls et al., 2017). Although digital platforms offer unprecedented opportunities for interaction, many scholars express concerns that excessive SMU may displace traditional face-to-face communication, potentially undermining interpersonal competence. This concern is amplified by the rise in asynchronous and image-based communication, which often lacks the depth of nonverbal cues essential to emotional expression (Twenge et al., 2019). The current literature presents conflicting viewpoints: while some assert that digital platforms foster novel forms of social intelligence, others argue they hinder the development of foundational interpersonal skills. Thus, the influence of SMU on social skills remains multifaceted and context-dependent.

A significant body of literature supports the view that moderate, purpose-driven SMU can support interpersonal growth. Subrahmanyam and Greenfield (2008) propose that social media platforms serve as digital rehearsal spaces where young people develop identity and communication strategies. Valkenburg and Peter (2016) similarly found

that students who engage with social media to sustain pre-existing friendships experience enhanced emotional intimacy and interpersonal satisfaction. Barry et al. (2017) further demonstrated that students who use SMU for maintaining real-life friendships reported higher peer support and social satisfaction. In educational settings, SMU facilitates collaborative learning and the development of communication competencies such as active listening, articulation, and constructive feedback (Tariq & Mehboob, 2012). When utilized intentionally, SMU can act as a developmental scaffold that enhances, rather than replaces, face-to-face interaction. However, rising empirical evidence points to the potentially detrimental effects of excessive, passive, or compensatory SMU. Alloway et al. (2014) observed that students heavily engaged in image-centric platforms showed poorer social competence, including reduced eye contact and limited emotional expressiveness. Twenge, Spitzberg, and Campbell (2019) also identified a decline in face-to-face socialization and community involvement as SMU increased, indicating that digital habits may erode real-world interpersonal development. The concept by Caplan (2010), “preference for online social interaction” suggests that students may become increasingly reliant on digital communication, avoiding the challenges of in-person interaction, which limits their practice of nuanced social behaviours such as interpreting tone, posture, and emotional cues.

The performance-driven nature of platforms like Instagram and TikTok further complicates interpersonal authenticity. As students curate idealized personas online, they may become more self-conscious and less emotionally open in real-world contexts. Nesi and Prinstein (2015) demonstrated that frequent social comparison on these platforms is associated with decreased social self-efficacy. Pera (2020) corroborated these findings, noting that students overly invested in maintaining curated online images often experience difficulty engaging in spontaneous or emotionally

intimate offline conversations. This emotional inhibition may stunt the development of trust, empathy, and self-expression which are the core dimensions of effective social interaction. An important variable influencing the outcomes of SMU is whether students engage actively or passively. Active SMU such as posting, messaging, or commenting is generally associated with stronger social ties and personal growth. Verduyn et al. (2017) found that active users reported higher subjective well-being and perceived social connectedness. In contrast, passive use marked by scrolling or observing without engaging is linked to envy, loneliness, and reduced empathy (Frison & Eggermont, 2016). Passive users may miss out on reciprocal communication experiences, leading to social stagnation. Moreover, Przybylski et al. (2013) associated passive use with the fear of missing out (FoMO), which intensifies social anxiety and dissatisfaction with offline relationships. These distinctions are crucial for understanding the varied psychosocial outcomes of SMU. Lai et al. (2018), in a large-scale Chinese study involving 1,740 college students, distinguished between passive and active SMU. They found that passive use predicted social anxiety via reduced communication capacity, while active use enhanced communication confidence and reduced anxiety. This mediating role of communication skills emphasizes the importance of usage type in determining social outcomes.

Recent literature promotes a more integrative framework, recognizing digital fluency as a legitimate dimension of social competence. Anderson and Jiang (2018) argue that students who master digital communication such as navigating tone, timing, and clarity are better equipped for modern academic and professional contexts. Greenhow and Chapman (2020) point out that asynchronous digital communication fosters reflective thinking, patience, and conflict resolution skills. However, these digital competencies must complement and not replace offline communication skills such as reading body

language and managing emotional responses in real-time (Livingstone & Sefton-Green, 2016). Several empirical studies lend further support to the notion that excessive or unbalanced SMU negatively impacts students' social skills. Thomas (2023), in a correlational study with 178 university students, found a significant negative relationship between SNS use and face-to-face communication abilities. The ability to interpret nonverbal cues and engage in reciprocal dialogue diminished with increased screen time. Similarly, Chai (2023), through a longitudinal study, identified a decline in both self-assessed and peer-evaluated social competence among frequent social media users. This discrepancy highlights the illusion of competence fostered by digital interactions that lack real-world depth.

Purnama and Asdlori (2023), in a qualitative inquiry, emphasized the psychological stress and social pressure associated with SMU, particularly in educational environments. While social media expanded students' communicative reach, it also intensified performance anxiety and emotional fatigue. Their study advocated for integrated social media literacy and psychological support systems within educational institutions to counteract these effects. Likewise, Feng, Tao, and Lopez (2024) conducted a large-scale survey involving 1,000 Chinese college students and revealed that those with social media addiction demonstrated lower levels of empathy, interpersonal skills, and psychological capital. Their research proposed psych educational interventions tailored to improve social interaction competencies, especially in students demonstrating gender-based empathy disparities. Also, Feenstra (2020) examined empathy among university students at the University of Maine. The findings indicated a gendered response: while male students showed increased personal distress during interpersonal conflict with active SMU, female students displayed reduced imaginative empathy with increased passive use. These results illustrate how

gender and user behaviour patterns intersect to influence social outcomes. In another survey, Romero-López et al. (2021) studied 514 Spanish university students and found that low social skills including empathy, risk coping, and conversational comfort predicted higher levels of compulsive internet use. Younger students were particularly vulnerable to online overuse, suggesting that age intersects with developmental readiness for responsible digital use. Uzochukwu and Anierobi (2020), in a Nigerian context, explored how SMU influences students' aggression. Their descriptive study revealed that exposure to violent digital content promoted antisocial behaviour, addiction, and reduced empathy, especially among male students. They underscored the role of digital supervision and the risks of unsupervised exposure to violent content. A study by Gutiérrez-Puertas et al. (2020) focused on 135 nursing students and explored how social media affects interpersonal communication in clinical settings. They found that higher empathy scores correlated with stronger communication competence, whereas excessive use of platforms like WhatsApp negatively affected therapeutic communication. This is significant for professional disciplines that rely heavily on emotional attachment and face-to-face engagement.

Ceyhan (2011) focused on university students' primary purposes for internet use and found that, although communication skill levels remained constant across groups, students using the internet primarily for social or entertainment purposes reported higher problematic usage levels, suggesting that overuse for relational gratification may impair real-life relational competence. Similarly, Azzakiyyah (2023) found that social media's superficial nature diminishes students' ability to read nonverbal cues, thereby fostering anxiety and weakening self-esteem. The performance-driven culture of social media, particularly on Instagram, was found to perpetuate harmful comparisons and emotional repression. In Tanzania, Ikachoi (2017) investigated the link between SMU

and communication skills among undergraduates. While SMU impacted students' interpersonal skills, it did not significantly affect self-esteem. However, students with higher self-worth demonstrated more effective communication, implying that self-perception mediates the social impact of digital engagement.

In conclusion, the empirical literature provides a clear perspective on the influence of social media use on university students' social skills. When used intentionally and in moderation, social media can support the development of emotional intelligence, collaboration, and communicative fluency. However, excessive, passive, or comparison-driven usage patterns may undermine real-world relational abilities and emotional authenticity. Importantly, the quality and purpose of social media engagement appear to be more determinative than mere frequency of use. As digital and in-person interactions continue to intersect in higher education, institutions must adopt integrated communication development models that encourage students to cultivate both digital fluency and traditional social competencies. Future research should explore longitudinal designs and cross-cultural comparisons to understand how varying usage patterns affect long-term social development outcomes.

2.4.3 Influence of Social Media Notifications and Usage on Sleep Quality of University Students

The increasing prevalence of social media in university students' daily lives has raised concerns about its impact on sleep quality. Social media notifications, particularly those received during evening hours, have been identified as key disruptors of healthy sleep patterns by prompting repeated engagement and increasing cognitive arousal before bedtime (Levenson et al., 2017; Martin & Rello, 2016). The persistent checking of notifications contributes to delayed sleep onset, fragmented sleep, and reduced sleep

duration (Exelmans & Van den Bulck, 2016). Physiologically, exposure to screen-emitted blue light suppresses melatonin production, further interfering with circadian rhythms (Chang et al., 2015). Smartphone dependence, often driven by fear of missing out (FoMO), exacerbates these effects and correlates with anxiety and poor health behaviours, compounding sleep disturbances (Li et al., 2021; Przybylski et al., 2013). As such, understanding the dual impact of social media notifications and use is essential to addressing declining sleep quality among university populations.

2.4.3.1 Influence of Social Media Notifications on Sleep Quality of University Students

Sleep quality among university students has become an increasingly prominent area of concern, particularly in the context of a digitally saturated environment where screen-based behaviours permeate both social and academic domains. Central to this digital milieu is the ubiquity of social media notifications—instant alerts originating from platforms such as WhatsApp, Instagram, Snapchat, and TikTok among others. Although these notifications are engineered to foster user engagement, a growing body of literature has implicated them in sleep disturbances, including fragmented sleep, delayed sleep onset, and reduced sleep duration (Alfonsi et al., 2020; Levenson et al., 2017). Specifically, smartphone-based interruptions, often driven by push notifications, are recognized as key disruptors of sleep continuity, particularly during transitional sleep periods. For instance, Pielot and Rello (2017) found that participants who disabled notifications for 24 hours reported heightened focus and reduced distraction. However, this benefit was counterbalanced by increased anxiety associated with missing important updates—an anxiety underpinned by the fear of missing out (FoMO), which itself has been linked to impaired sleep quality (Przybylski et al.,

2013). These findings underscore the dual influence of notifications, affecting both behavioural and psychological aspects of sleep hygiene.

Importantly, social media notifications do not function merely as passive intrusions; rather, they often catalyze further engagement, prompting students to interact with platforms during pre-sleep hours. Such engagement elevates cognitive load and emotional arousal, particularly when the content is emotionally charged or stress-inducing (Carter et al., 2016). This behavioural loop can significantly exacerbate insomnia-like symptoms, especially among individuals who rely on their devices as coping mechanisms for academic or interpersonal stress. As a result, the disruption caused by notifications is not confined to the moment of alert but extends into prolonged wakefulness and delayed disengagement from stimulating digital environments.

Furthermore, these notifications serve as potent digital cues that reinforce habitual late-night social media use, extending screen exposure into biologically sensitive hours. During the COVID-19 pandemic, increased digital engagement, spurred by both social isolation and the migration of academic activities online, magnified this issue. A longitudinal study by Exelmans and Van den Bulck (2016) demonstrated that students who frequently received nighttime notifications and engaged with social media before sleep were nearly three times more likely to experience disturbed sleep ($OR \approx 2.8$). The physiological mechanisms underlying this disruption are closely tied to blue light exposure from screens, which has been shown to suppress melatonin production, a hormone critical for initiating and maintaining sleep (Chang et al., 2015). Supporting this, a UK-based systematic review revealed that nighttime screen exposure—often triggered by notifications—was associated with a 33% increase in the likelihood of

poor sleep and a reduction of approximately 49 minutes of sleep per week (Hale & Guan, 2015). These findings highlight the compounded impact of even brief digital interactions on circadian rhythms and overall sleep health.

The habitual nature of notification checking behaviour also reflects broader patterns of smartphone dependence among students. Many engage in anticipatory checking even in the absence of new notifications, suggesting a form of conditioned response rooted in past reinforcement. A large-scale study conducted in China by Li et al. (2022), involving over 21,000 university students, identified a statistically significant correlation ($r = 0.27$, $p < 0.001$) between smartphone dependency and poor sleep quality. Notably, this relationship was mediated by negative affective states such as anxiety and depression, while unhealthy behaviours, including reduced physical activity, further compounded sleep disturbances. Complementary evidence from a cross-sectional study of Moroccan nursing students (El Haddaouy et al., 2025) echoed these findings, indicating that high levels of smartphone addiction—characterized by persistent nighttime usage and compulsive notification checking—correlated with significantly diminished sleep quality. The absence of mitigating strategies, such as blue light filters, and the added burden of academic stress exacerbated these effects, revealing the interconnectedness of digital behaviours, mental health, and sleep hygiene.

Emerging research also points to downstream consequences of notification-induced sleep disruption, notably in the realm of daytime functioning and academic performance. Poor sleep quality has been consistently associated with deficits in memory consolidation, reduced attention span, and impaired cognitive processing—factors essential to academic achievement (Lemola et al., 2015). Students reporting

frequent nighttime interruptions due to notifications often experience excessive daytime sleepiness, which in turn hinders concentration during lectures and examinations (Kim, Kang, & Park, 2021). These detrimental effects emphasize the importance of digital hygiene education and the implementation of institutional policies that promote healthier engagement with technology, particularly in the hours leading up to sleep.

In light of the strong empirical association between notifications and compromised sleep quality, a range of behavioural interventions has been proposed. These include establishing technology-free intervals particularly 30 to 60 minutes prior to bedtime, activating night mode or "do not disturb" settings, and fostering awareness of melatonin's role in sleep regulation. Experimental interventions involving the suppression of notifications have yielded encouraging outcomes, including improved sleep continuity and reduced anxiety levels (Radtke et al., 2022). Higher education institutions could play a proactive role by incorporating sleep education into broader student wellness programs and promoting evidence-based digital hygiene practices.

In conclusion, the influence of social media notifications on university students' sleep quality is multidimensional, involving an interplay of behavioural, psychological, and physiological processes. Notifications disrupt not only the initiation and continuity of sleep but also elevate cognitive and emotional arousal that hampers restful disengagement. With the growing prevalence of smartphone reliance among students, the incidence of notification-driven sleep disturbances is poised to rise in the absence of effective intervention. The literature consistently underscores the importance of targeted behavioural strategies and institutional support mechanisms to mitigate these effects and enhance students' overall sleep health.

2.4.3.2 Influence of Social Media Usage on Sleep Quality of University Students

Social media use (SMU) has become an integral part of university students' daily routines, with platforms such as Instagram, TikTok, Snapchat, and X (formerly Twitter) dominating digital interactions especially during nighttime hours. While these platforms offer valuable avenues for academic collaboration, entertainment, and social connection, they have also emerged as major contributors to sleep disruption. Increasing empirical evidence shows that habitual night-time social media use compromises sleep hygiene and alters physiological rest cycles. Studies indicate that students who engage with social media in the evening experience heightened sleep latency, reduced sleep efficiency, and increased insomnia symptoms (Chang et al., 2015; Lemola et al., 2015). These disruptions are particularly concerning within the university context, where irregular schedules, academic pressures, and autonomous living already threaten sleep quality (Hirshkowitz et al., 2015). Expanding on this foundational understanding, scholars have identified bedtime procrastination as one of the most pervasive behavioural pathways through which social media impairs sleep. Bedtime procrastination refers to the intentional delay in initiating sleep despite awareness of the consequences, often to prolong leisure time. In their survey of 942 university students, Exelmans and Van den Bulck (2016) found that over 70% delayed sleep due to nighttime social media use particularly via Instagram and TikTok. This form of procrastination, commonly termed “revenge bedtime procrastination,” often arises from students’ efforts to reclaim personal time after demanding academic schedules. Psychological factors such as fear of missing out (FOMO), the need for social affirmation, and compulsive engagement triggered by algorithmic feeds further exacerbate this trend (Przybylski et al., 2013). These behaviours are not benign; they disrupt circadian rhythms and shorten sleep duration, resulting in daytime fatigue,

reduced academic performance, and emotional instability (Kadzikowska-Wrzosek, 2020). Beyond these behavioural disruptions, the physiological impact of screen exposure at night has been well-documented as another key factor undermining student sleep. Smartphone screens emit blue light, which inhibits the production of melatonin—a hormone responsible for regulating the sleep-wake cycle. Chang et al. (2015) demonstrated that evening use of light-emitting devices delayed circadian timing and reduced REM sleep. University students, who often engage in nighttime browsing under low ambient light, are particularly vulnerable to this disruption. This is corroborated by Lemola et al. (2015), who found that high screen time before bed significantly reduced sleep quality as measured by the Pittsburgh Sleep Quality Index (PSQI). Furthermore, Carter et al. (2016) confirmed in their systematic review that bedtime screen media use is consistently associated with shorter sleep duration, longer sleep latency, and increased daytime sleepiness in young adults. The interactive and stimulating design of social media, including notifications and emotionally charged content, amplifies both physiological and psychological arousal, thereby compounding the impact on sleep.

In addition to physiological effects, the emotional and psychological consequences of social media engagement also play a pivotal role in disrupting sleep. Unlike passive forms of media consumption, social media elicits strong emotional reactions, ranging from anxiety to excitement, based on user interactions and the content encountered. Kuss and Griffiths (2017) argue that emotionally stimulating content, such as arguments, lifestyle comparisons, and cyberbullying, elevates cognitive arousal and hinders emotional regulation. These effects align with the cognitive arousal theory, which posits that heightened mental activity before bedtime impairs the transition to restful sleep. Emotional hyperarousal thus serves as a significant barrier to quality

sleep, especially for students navigating the emotional volatility of social comparison and online conflict. Compounding the psychological disruption is the displacement of beneficial pre-sleep routines by social media use. Many students now dedicate the hour before sleep once reserved for wind-down activities like journaling, reading, or mindfulness to scrolling through social media. The American Academy of Sleep Medicine (2020) found that approximately 80% of college-aged individuals reported using smartphones in bed, with social media being the most frequently used application. This behaviour not only delays sleep onset but fragments rest due to the repeated checking of notifications and the cognitive engagement they trigger. Roenneberg et al. (2019) introduced the concept of “social jet lag” to describe the misalignment between one’s biological sleep-wake cycle and socially induced routines. The practice of compensating for weekday sleep loss with weekend “catch-up” sleep further disrupts circadian regulation and degrades overall sleep health. These cumulative effects including fatigue, irritability, reduced academic focus, and weakened immune function illustrate how digital behaviours can progressively deteriorate physical and cognitive well-being (Beattie et al., 2015).

However, it is important to note that the effects of social media on sleep are not uniform. Recent studies underscore the role of usage type, timing, and intent in shaping sleep outcomes. Levenson et al. (2017) found that active engagement such as direct messaging or participation in online communities can yield emotional benefits and potentially improve sleep latency when conducted earlier in the evening. In contrast, passive use - endlessly scrolling through others’ content has been consistently linked to increased loneliness, social comparison, and anxiety (Verduyn et al., 2017). These negative emotions often intensify cognitive activity at bedtime, delaying sleep onset. Timing is also critical: late-night, passive engagement is especially disruptive due to its

physiological and emotional implications. Furthermore, students who use social media intentionally for academic support or emotional connection, report fewer sleep disturbances than those who use it to escape boredom or stress. These distinctions highlight the need for interventions that promote mindful, purpose-driven social media habits, particularly in the hours preceding sleep. Moreover, individual differences such as gender, chronotype, and self-regulatory abilities influence the severity of SMU-related sleep disturbances. Alimoradi et al. (2019), in a meta-analysis involving over 35,000 participants, found that females were more susceptible to SMU-induced sleep issues, potentially due to greater emotional involvement. Randler et al. (2016) noted that “evening-type” individuals those naturally inclined to stay up late were more prone to prolonged SMU and insomnia. Students with poor self-regulation are also at greater risk for compulsive media use, making them particularly vulnerable to sleep disruption (Wolniczak et al., 2013). Responding to these challenges, several universities have adopted digital wellness initiatives. Li, Lepp, and Barkley (2015) found that a one-week intervention aimed at reducing social media use significantly improved sleep duration and subjective quality among university students. Such efforts including the use of screen-time trackers, blue-light filters, and digital detox campaigns demonstrate the potential for institutional support to mitigate the adverse effects of SMU. Complementing these broader trends, Sedaghat (2023) conducted a cross-sectional study using wrist-worn accelerometers to assess the impact of late-night screen time among 29 U.S. college students. Findings revealed that students spent an average of 112 minutes on screens after 10:00 p.m., resulting in delayed bedtimes (mean: 2:26 a.m.) and frequent awakenings (mean: 22.3 per night). Students who limited screen time or incorporated naps exhibited better sleep efficiency, underscoring the cognitive and physiological costs of evening screen exposure. Similarly, Zhu et al. (2023), in a

large-scale study involving 2,744 Chinese students, found that social media addiction (SMA) and fatigue (SMF) significantly correlated with reduced sleep duration and quality. Interestingly, FOMO indirectly impacted sleep by increasing SMF, further validating the psychological pathways through which SMU disrupts sleep. These findings are further reinforced by broader population studies. Lastella et al. (2020) examined 1,225 adults and found that 42% used electronic devices in bed after lights out, with 27% exceeding one hour of use. Such behaviours were associated with later bedtimes and lower-quality sleep. Levenson et al. (2017), using data from 1,763 young adults, found a strong dose-response relationship between pre-sleep social media use and sleep disturbances, with effects persisting across sensitivity analyses. Likewise, Bhat et al. (2018) found that high levels of in-bed social media use correlated with insomnia, anxiety, and shorter weekday sleep duration. Collectively, these studies affirm that nighttime SMU has far-reaching implications for sleep health and overall student well-being. Further support for these conclusions comes from a range of international studies. Jayaraman et al. (2023), in a cross-sectional study involving 347 Malaysian university students, found that WhatsApp use was the most common form of SMU (89%) and was positively correlated with poor sleep quality using the PSQI and SMEQ scales. Similarly, Keretli and Emine (2023) assessed 208 sports science students and confirmed that higher social media addiction scores significantly predicted lower sleep quality, as shown through t-tests and ANOVA. Adelantado-Renau et al. (2019) focused on adolescents and found that internet use was a mediator in the relationship between sleep quality and academic performance, highlighting the indirect academic costs of sleep disruption. In Bangladesh, Rahman (2019) used a qualitative approach to examine the sleep patterns of university students and reported that 71.11% of those addicted to social networking sites stayed up late compared to 15.55% of non-users.

This delay in sleep had tangible effects on academic engagement. Xu et al. (2015), through a survey of 1,979 Chinese undergraduates, found that students using WeChat, QQ, and microblogs before bed were more likely to experience poor sleep, especially when used within two hours before bedtime. Additionally, female students and those from lower-income households were more adversely affected, suggesting socioeconomic and gender-based disparities in vulnerability.

Other studies further illuminate this complex interaction. Moskowitz (2022), in a five-day observational study of 30 students, hypothesized that poor sleep quality would result in more negative social media posts. Although this was not confirmed, male participants were found to post more negatively than females, highlighting gendered patterns in emotional expression. Patel (2021), using a correlational design involving 64 students, found no significant gender differences in sleep quality or SMU, but confirmed a positive correlation between the two variables. Abu-Snieneh et al. (2020) examined 412 students at Jouf University and identified Twitter addiction as the strongest predictor of poor sleep, with YouTube, Snapchat, and WhatsApp also contributing. In a similar context, Pandolfo (2022) analyzed 204 Turkish university students and found that higher SMU correlated with lower sleep quality, particularly among low-income students and females who reported higher usage rates. Levenson et al. (2016) offered a broader review, identifying a range of behaviours—such as excessive napping, FOMO, and nighttime technology use that contribute to sleep deprivation in college students. These behaviours were associated with negative outcomes including impaired memory, increased anxiety, weakened immune function, and reduced academic performance.

The current empirical literature strongly supports the assertion that university students' social media use significantly influences their sleep quality, primarily through bedtime procrastination, blue light exposure, emotional arousal, and the displacement of healthy bedtime routines. While certain forms of engagement may be neutral or even beneficial when practiced mindfully and earlier in the day, the prevailing pattern of nighttime use contributes to widespread sleep disturbances among university students. Future research should explore longitudinal designs to better understand causal relationships and test scalable interventions aimed at promoting healthier social media habits and improved sleep quality.

2.5 Identified Gaps in the Empirical Literature

Despite the insights from the current literature on influence of social media use (SMU), sleep quality, and social skills on academic performance among university students, the following research gaps were identified. First, there is a noticeable lack of integrated theoretical frameworks that unify perspectives from media psychology, chronobiology, and educational theory. Most studies examine these variables independently, limiting the capacity to understand how they interact to influence academic outcomes (Su and Huang, 2021; Tafesse, 2022). Second, the majority of studies employ cross-sectional or correlational designs, which restrict the ability to establish causality or understand temporal relationships. Longitudinal and experimental studies remain scarce (Lo et al., 2016; Malik et al., 2025). Third, an overreliance on self-reported measures such as subjective sleep quality assessments, social competence ratings, and estimates of SMU introduces potential bias and reduces measurement reliability. More objective data collection methods including digital tracking and actigraphy, are needed (Chang et al., 2015; Danso et al., 2023). Fourth, current research lacks cross-cultural breadth and contextual diversity. Many findings are drawn from single-country samples, limiting

the generalizability of conclusions across educational systems and sociocultural settings (Valkenburg and Peter, 2016; Tabassum et al., 2020). Fifth, moderating and mediating variables such as self-regulation, gender, chronotype, and academic engagement are underrepresented in multivariate analyses, despite their potential to explain variability in outcomes (Whiting and Williams, 2013; Raza et al., 2017). Sixth, few studies differentiate between active and passive forms of social media engagement, despite evidence that these usage patterns have distinct cognitive and emotional effects (Verduyn et al., 2017). Seventh, there is limited intervention-based research. Few rigorous, scalable programs such as sleep hygiene education or digital wellness initiatives have been systematically evaluated for long-term academic impact (Purnama and Asdlori, 2023). Eighth, research often treats students as a homogeneous population, overlooking important disciplinary differences in workload, collaboration, and social media use behaviour (Frison and Eggermont, 2016; Nesi and Prinstein, 2015). Finally, institutional and policy-level influences such as course scheduling, learning management system (LMS) notifications, and academic workload were often neglected, despite their known impact on student behaviour and well-being (Carter et al., 2016; Pielot and Rello, 2017). In conclusion, these identified gaps suggest the need for comprehensive research that addresses the methodological, theoretical, and contextual limitations in the existing studies while examining the holistic interplay between social media use, social skills, sleep quality, and academic performance of university students.

2.6 Summary

This chapter comprehensively examined literature on interrelated effects of social media use (SMU), sleep quality, and social skills on academic performance among university students. Drawing on theoretical frameworks such as Uses and Gratifications Theory (UGT) and Sleep and Circadian Rhythms Theory, the review highlights how

digital behaviour, psychosocial competencies, and physiological health collectively shape academic outcomes. It established that moderate and purposeful SMU can enhance academic collaboration and access to information, but excessive or passive use is consistently linked to decreased concentration, procrastination, and academic underperformance. Individual traits such as self-regulation and self-esteem moderate these outcomes. Social skills, including empathy, communication, and emotional regulation, are shown to be crucial for academic success, particularly in environments emphasizing group learning and collaboration. Social competence contributes indirectly to performance by fostering supportive peer networks and engagement. Sleep quality emerges as a central predictor of academic performance. Poor sleep, driven by digital screen exposure, bedtime procrastination, and psychological stress impairs cognitive functioning, emotional regulation, and learning persistence. Nighttime SMU and notifications are identified as key disruptors of circadian rhythms, leading to chronic sleep deprivation. Despite growing awareness, intervention-based research remains limited. The chapter concludes by identifying key gaps in the literature, including the need for integrated theoretical models, longitudinal and cross-cultural research, and scalable interventions. Collectively, the findings underscore the importance of addressing digital habits, social development, and sleep hygiene as interconnected determinants of student success. The review calls for higher education institutions to adopt holistic, evidence-based strategies to enhance student well-being and academic resilience.

CHAPTER THREE

METHODOLOGY

3.1 Overview

This chapter provides detailed description on the methodology employed in the study which includes the research design, population, sampling methods, research instruments, data collection procedures, methods of data analysis and ethical consideration.

3.2 Research Design

With a combination of quantitative and qualitative data, the study employed a cross-sectional survey research design. According to Wang and Cheng (2020), cross-sectional studies examine data from a population at a specific point in time. In order to identify particular group characteristics, information is gathered at a single moment from a sample selected from a predefined population by giving each person a questionnaire or ability test. The cross-sectional survey methodology made it easier for the researcher to utilize a questionnaire to quantify social media usage's effect on students' academic performance, social skills, and sleep quality at UEW.

The sincerity, motivation, and capacity of participants to complete questionnaire items are critical components of the study (Fraenkel and Wallem, 2000). As such, this may have had an impact on survey replies and findings.

Considering the primary goal of this research, it was necessary to ascertain the positive and negative effects of social media use while taking into account the three most important factors: academic performance, social skills, and sleep quality. In order to accomplish this, information from every segment of the university's student body had to be gathered. Since the researcher intended to use a questionnaire to collect data on these factors, the cross-sectional survey method was the most appropriate for this task.

Survey research design facilitates the easy generalization of findings to real-world settings and can be used to gather large amounts of data at a relatively lower cost (Taherdoost, 2021).

Additionally, the study aimed to explore students' experiences with using social media on a daily basis. For this purpose, the qualitative data section of the study comprised analyses of participants' answers to the open-ended questionnaire items. Given the nature of the topics being studied and the research questions that were given, it is evident that both quantitative and qualitative data were relevant for this study. According to Thomas 2003, blending qualitative and quantitative data offers a clear benefit making the study as a whole appear more solid. Through the use of qualitative data, the thoughts and opinions of UEW students regarding the use of social media networks and how it impacts their sleep quality, social skills, and academic performance were qualitatively investigated giving a deeper perspective on the quantitative data.

3.3 Population

“The term population refers to all members of a specific group. It is the group of interest to the researcher, to whom the researcher wishes to generalize the findings of a study” (Fobi, 2023). Population describes the collection or grouping of all the units to whom the research's conclusions are to be applied (Satishprakash, 2020). It also includes an entire group of individuals or objects that meet specific criteria and are recognized by a comparable trait to be included in a study (Palinkas, et al, 2015; Creswell, 2014). The population for this study includes all student categories enrolled in University of Education, Winneba at the time of the study. The focus of the study on students across all levels in the university was to enhance the generalizability of the findings.

3.4 Sampling

Sampling is a foundational element of research methodology, involving the deliberate selection of a subset of individuals from a larger population to represent the characteristics of the whole. In educational and behavioural research such as this study, which investigates the effects of social media usage on academic performance, social skills, and sleep quality among university students, a carefully designed sampling strategy is essential to ensure the validity, reliability, and generalizability of the findings (Creswell & Creswell, 2017)

3.4.1. Sample Size Determination

The sample size for this study was determined using Cochran's formula (1977), which is suitable when the population size is large or unknown. This method is widely used in social science research when the total population such as university students, is substantial and precise figures are difficult to obtain. The formula ensures that the sample is large enough to yield statistically reliable estimates while maintaining a manageable study size.

The formula for Cochran's sample size calculation is given as:

$$n = \frac{Z^2 p(1 - p)}{e^2}$$

Where:

n_0 = initial sample size

Z = Z-value corresponding to the desired confidence level (1.96 for 95% confidence)

p = estimated proportion of the population; if unknown, 0.5 is used for maximum variability

e = margin of error (typically 0.05 or 5%)

Substituting the values:

$$n_0 = (1.96)^2 * 0.5 * (1 - 0.5) / (0.05)^2$$

$$n_0 = 3.8416 * 0.25 / 0.0025$$

$$n_0 = 0.9604 / 0.0025 = 384.16$$

Thus, the minimum required sample size was approximately 384 students. Given the possibility of non-response or incomplete data especially in mixed-method studies it is advisable to adjust the sample size by adding a 10% buffer to account for attrition:

$$n = n_0 + (0.10 * n_0) = 384 + 38.4 \approx 422$$

Therefore, the final target sample size for this study was approximately 422 respondents. This sample size ensured sufficient statistical power to examine the relationship between social media use, sleep quality, social skills, and academic performance of the students, and strengthened the generalizability of findings across the student population at the University of Education, Winneba.

3.4.2 Sampling Technique

This study employed a convenience sampling technique to select participants from the population of students enrolled at the University of Education, Winneba. This sampling method was adopted due to its practical advantages in terms of time, accessibility, and resource constraints. The researcher recruited participants who were readily available and willing to participate during scheduled lecture periods, at faculty gatherings, and through student online platforms. This method enabled efficient data collection within the limited timeframe of the study and allowed access to a diverse mix of students across programmes and study levels (Etikan, Musa, and Alkassim, 2016). Nonetheless, the study acknowledges the limitations associated with convenience sampling,

particularly concerning external validity and generalizability of the findings to the entire university population.

Although convenience sampling does not provide the same level of representativeness as probability-based methods such as simple or stratified random sampling, it is widely recognized as a viable approach in exploratory or correlational studies, particularly when logistical limitations exist (Taherdoost, 2016). In this study, the primary objective was to examine the relationships between social media use, sleep quality, social skills, and academic performance. Therefore, convenience sampling was deemed appropriate to gain initial insights and identify emerging patterns within the student population. Accordingly, 422 self-administered questionnaires were distributed across the various faculties of the university. Of these, 282 were completed and returned in usable form, yielding a response rate of approximately 66.8%. This response rate is considered acceptable for educational and behavioural research, especially in studies employing mixed-methods approaches (Creswell & Creswell, 2017).

3.5 Research Instrument

A questionnaire which was adapted from Zahid et al., (2019) and Vladimir (2018) as the primary data collection instrument for this study after a careful review of relevant literature and expert advice. Questionnaires are a common tool used in social science research to gather self-reported data on attitudes and beliefs. Questionnaires are the most utilized data collection instrument in the field of educational research since participants are more accustomed to utilizing them (Marshall, 2005; Kuphanga, 2024). However, their shortcomings include their inability to probe deeply into participants' ideas and feelings and their often-low response rates (David, 2024; Marshall, 2005; Alhassan, 2006). Among the instruments were both closed- and open-ended items. Closed-ended items required participants to choose from the answers the researcher had

provided, but open-ended items allowed respondents to generate their own responses. The researcher gave students the opportunity to express themselves in the questionnaire by including both closed-ended and open-ended questions.

3.5.1 Description of the questionnaire items

The questionnaire consisted of four main parts;

The first part consisted of thirteen items that were used to gather demographic data of participants. It covered participants age, gender, academic programme, programme of study, academic level, GPA, and residential status. These data are in tune with the purpose of this research since they are participant's demographics.

Part two entailed eight Likert scale questions which were questions measuring the first key variable for this research work. Which is "How social media usage impacts students' academic performance". Also, in part two of the questionnaire, it contained two open ended questions that elicited participants' perception on how social media usage impacts participants academic performance.

The third part of the questionnaire consisted of ten questions measuring on how social media usage affect students' social skills. Also in the third part, it included two open ended questions that allowed participants to share their thoughts on the positive and negative effects social media usage has on their social skills.

The fourth part of the questionnaire comprised of eleven questions that sought to find out how the use of social media affects participants sleep quality. The fourth part which is the last also included two open ended questions that elicited information from participants on how the use of social media positively and negatively affects their sleep quality. The last question probed on the number of hours of sleep participants have at night.

3.5.2 Scoring of the Instrument

The questionnaire was scored using a Likert scale with five options: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD) and graded in the following ways:

Table 3.1: Likert Scale Response Score

Response Intensity	Symbol	score
Strongly Agree	SA	5
Agree	A	4
Neutral	N	3
Disagree	D	2
Strongly Disagree	SD	1

Likert scale with five options (Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD)) was used to score the instrument because it looks interesting to respondents and people often enjoy completing a scale of this type (Taherdoost, 2019; Bhandari & Nikolopoulou, 2023; Mujis 2004). A Likert scale offers the advantage of being simpler to create, understand, and use. This approach is highly dependable for gauging an individual's beliefs, dispositions, and conduct regarding a specific company, brand, good, or service. Likert scale provides varying degrees of opinion, which yields a far clearer answer than a basic Yes/No response (Mathew, 2022). It also makes it possible to calculate statistics like the mean and standard deviation of scores, as well as frequencies and percentages. Also, Surveys using Likert scales are incredibly effective when you want to get an overall sentiment measurement of a particular topic, experience, or opinion. Likert scales can also be used to gather information on the elements that go into creating a given feeling (Mathew, 2022). Furthermore, it is frequently discovered that Likert scales yield data with a comparatively high level of reliability (Robinson, 2024; Fraenkel & Wallem, 2000).

The questionnaire's items were formulated with a combination of positive and negative language. Positively worded items (e.g. "I feel confident in face-to-face conversations") were scored as follows: Response Intensity Symbol Score- Strongly Agree-SA (5), Agree-A (4), Neutral-N (3), Disagree-D (2), Strongly Disagree-SD (1). The numeric values of the replies for the linked items on the variable were averaged to create the variable scores. A mean score of close to five was deemed to represent an extremely high degree of agreement to the question, a score between three and four denoting good agreement and a score between one and two denoting "not in agreement". A mean score of 3.0 denotes a "neutral position". In this study, the value 3.0 which denotes a neutral position was utilized to reflect the opinion of respondents who are neither in agreement nor disagreement with a statement. A mean score above 3.0 indicates a broad image of agreement with a statement, while a mean value below 3.0 generally indicates dissent (See Figure 3.1). Note that a mean value above or below 3 does not indicate that all respondents agreed or disagreed with a statement; rather, it indicates that the majority did. Therefore, a statement's level of agreement or disagreement was determined by the majority. Additionally, the percentages of the participants' responses to the Likert scale items were utilized to show the extent to which participants agreed or disagreed with the items.

However, it must be noted that, a mean value above or below three does not imply that all respondents agreed or disagreed with a statement, but the majority were. Agreement or disagreement to a statement was therefore considered on majority basis. The percentages of the participants' response to the Likert scale items were also used to indicate the extent to which participants agreed or disagreed with the items.

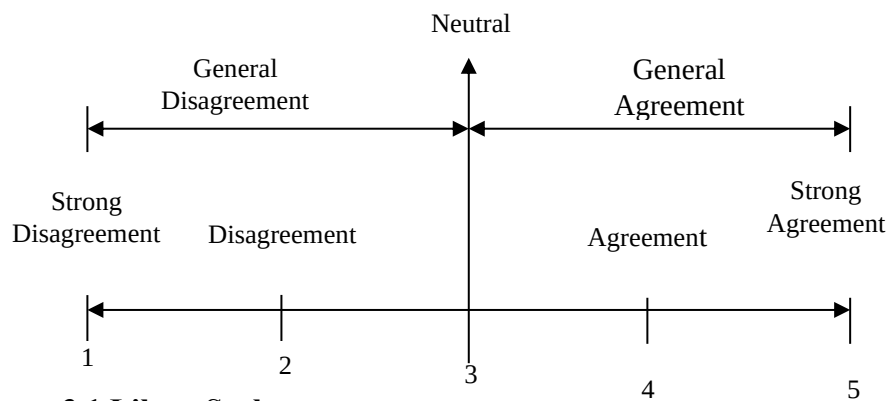


Figure 3.1 Likert Scale

3.6 Reliability and Validity

The challenges of validity and reliability are crucial in research since a study's credibility is based on the validity of its conclusions as well as the procedures used to acquire the data (Middleton., 2023). Questionnaire may be constructed to be valid because it consistently elicits consistent replies, it may not be valid because it does not measure the idea it is supposed to test (Bujang et al, 2022).

According to Fobi (2023), validity in a quantitative study refers to the accuracy with which a concept is measured, whereas reliability is the consistency of a measure. It is the degree to which the items on an instrument elicit consistent replies from different respondents in the same location or situation during numerous trials (Fobi, 2023)

Some experts in research who are also senior lecturers in the ICT Department of UEW evaluated the questionnaire for content and construct as well as face validity. To determine the reliability of the questionnaires a pilot study was conducted on a small sample of twenty-one (21) students which consisted of graduate and undergraduate students.

3.7 Pilot Study

Tourangeau (2004), Wilson and MacLean (1994) and Srinivasan, Lohith, Srinivasan, and Lohith, (2017) suggested that, piloting can assist in determining the validity, reliability, and practicability of the questionnaire because it can be used, among other things, to ensure that the necessary data addresses the research questions, assess the

clarity of the questions, and provide feedback on the validity of test items. This experiment involved twenty-one (21) University of Education, Winneba (UEW) students. Regarding the learning environment, these participants shared many of the same traits as the study's real participants. The pilot study had 21 participants and a 100% response rate. Their comments were helpful in raising the survey's quality in terms of content validity and coverage. Based on the pilot, some of the questions were reworded as was prompted by some of the participants. The reliability scales (Cronbach's Alpha values) for the survey instrument were 0.716 (Appendix D) which indicates a high degree of reliability of the items in the instrument.

3.8 Data Collection Procedure

With permission from the Head of department and graduate Coordinator in UEW, some UEW lecturers in the Department, and consent from the class representative of all the departments and faculties, the questionnaire was administered to participants for their responses. With the help of course representatives and student leaders, they helped to reach a wider category of students which improved the collection and response rate of the questionnaire. The class representative assisted in administering the questionnaire to the students whilst sending in constant reminders. Communication between respondents was not possible during the answering of the questionnaire because most of the participants answered the questionnaire at their own pace (preferred time) and different locations. This helped to ensure that responses were not affected by views of persons other than individual participants.

3.9 Method of Data Analysis

Data analysis for this study was conducted using version 20 of the Statistical Package for the Social Sciences (SPSS), adopting a comprehensive, multi-level statistical approach appropriate for postgraduate research in the social sciences. The primary

objective of the analysis was to explore the complex relationships among social media usage, social skills, sleep quality, and academic performance (measured by GPA) among university students. Both descriptive and inferential statistical techniques were employed to ensure a rigorous and methodologically sound interpretation of the data. Descriptive statistics, including means, standard deviations, and frequency distributions, were first used to summarize the central tendencies and dispersion of key variables such as GPA, daily social media check-ins, academic distraction, hours of night sleep, social media-induced sleep interruption, and face-to-face social skills. This preliminary analysis established a foundational understanding of the dataset and facilitated subsequent inferential procedures. Also, Pearson's Product-Moment Correlation was used to examine the strength and direction of linear associations between continuous variables. This test was selected due to its suitability for analysing relationships between interval-level variables such as GPA, sleep quality, and social media usage patterns. To explore the predictive power of multiple independent variables on academic performance, multiple linear regression analysis was conducted. This enabled the simultaneous examination of how social media behaviour, social skills, and sleep quality contribute uniquely to GPA. Regression coefficients and standardized beta values were interpreted, with significance assessed at $\alpha = 0.05$ and $\alpha = 0.01$ thresholds. For qualitative responses, thematic analysis was performed. Open-ended responses were carefully coded and categorized into emerging themes through iterative readings. This inductive process highlighted insights into students' lived experiences and perceptions of social media's academic and social implications.

3.10 Ethical Principles

Before distributing the questionnaire, the researcher obtained approval from the department heads and the MPhil ICT Coordinator. An introductory letter for data collection was obtained (See Appendix C). Also, participants were guaranteed confidentiality, meaning that no names could be used in the study's writing or on the questionnaire. Consent was sought from various class representatives. Students read and signed two consent forms before participating in the study of which they kept one to themselves. (See Appendix B)



CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Overview

This chapter presents and analyzes the data collected in relation to the research questions guiding this study. Both quantitative and qualitative findings are integrated to provide a comprehensive understanding of how social media usage influences university students' academic performance, social skills, and sleep quality. The statistical results are organized in tables and figures, accompanied by interpretations that highlight emerging patterns and relationships. Additionally, thematic insights from open-ended responses provide deeper perspectives on students' lived experiences. The discussion further aligns these findings with existing literature and theoretical frameworks, thereby establishing the relevance and implications of the outcomes of the study.

Study Respondents

The target population for this study comprised university students enrolled at the University of Education, Winneba. Using Cochran's formula, a target sample size of 422 participants was determined as statistically sufficient for representing a large or unknown population. Data were collected through self-administered questionnaires, distributed across faculties of the university. Of the 422 questionnaires distributed, 282 were completed and returned in usable form, yielding a response rate of approximately 66.8%. This response rate is considered acceptable for educational and behavioural research, particularly in studies employing mixed-methods approaches (Creswell & Creswell, 2017). The sample of 282 respondents provided adequate data for the quantitative analysis and ensured sufficient variability in grade point average (GPA), social media usage, social skills, and sleep patterns among the students.

4.2 Demographic information of respondents

Table 4.1: Age distribution of Respondents

Age	Frequency	Percent
15-25	96	34.0
26-35	142	50.4
36 - 45	37	13.1
46 and above	7	2.5
Total	282	100.0

From Table 4.1, a total of 282 respondents participated in this research study. The age range of these respondents were from 15-25years, 26-35 years, 36-45years, 46 and above years. Majority of the respondents were within the age range of 26-35 years which was 50.4%(n=142). 15-25years of the respondents 34.0% (n=96). This was followed by the age range 36-45 years representing 13.1%(n=37) and the age range with the least number of respondents was 46 and above years representing 2.5%(n=7).

Table 4.2: Gender Distribution of Respondent

Gender	Frequency	Percent
Male	231	81.9
Female	51	18.1
Total	282	100.0

The Table (4.2) presents information on the number of males and females who participated in this study. The highest percentage was recorded from the males who were 73.3% (n=231) of the sample and the females were 18.1%(n=51) of the sample. This means the number of males who took part in the study were in the majority. That is about four times the number that was recorded for the female respondents.

Table 4.3: Distribution of Respondents by Academic Programme

Programme Level	Program Name	Frequency (n)	Percentage (%)
Postgraduate	PhD Science Education	3	1.0
	PhD Art and Culture	1	0.3
	MPhil ICT	31	11.0
	MPhil Mathematics	5	1.8
	MPhil Social Studies	2	0.7
	MPhil Home Economics	1	0.4
	MPhil Business Management	1	0.4
	MPhil English	2	0.7
	MPhil Linguistics	1	0.4
	MPhil Music Education	2	0.7
	MPhil Special Education	2	0.7
	MPhil Counselling Psychology	5	1.8
	MBA Accounting	5	1.8
	MPhil Early Childhood	3	1.1
	MPhil Educational Admin & Mgmt.	1	0.4
	MPhil Communication & Media Studies	1	0.4
	MPhil Science Education	4	1.4
	MPhil Geography	3	1.1
	MPhil Family Life Management	1	0.4
	MPhil Curriculum and Pedagogic Studies	1	0.4
Subtotal		78	27.7
Undergraduate	ICT Education	99	35.1
	Special Education	7	2.5
	Integrated Science	21	7.4
	Health Administration & Education	8	2.8
	Mathematics Education	8	2.8
	French Education	5	1.8
	Political Science Education	4	1.4
	Chemistry Education	5	1.8
	Agricultural Education	3	1.1
	Biology Education	5	1.8
	Accounting	6	2.1
	Human Resource Management	5	1.8
	Basic Education	5	1.8
	Theatre Arts	1	0.4
	Communication & Media Studies	1	0.4
	Procurement & Supply Chain Management	1	0.4
	History Education	1	0.4
	Physical Education	1	0.4
Subtotal		204	72.3
Total		282	100.0

Table 4.3 presents the distribution of study participants across academic programs and levels at the University of Education, Winneba. The total sample size comprises 282 students, with 27.7% (n = 78) enrolled in postgraduate programs and 72.3% (n = 204) in undergraduate programs. This distribution reflects a strong representation from the undergraduate student population, which aligns with the typical enrolment structure in most Ghanaian universities. Among postgraduate respondents, the MPhil Information and Communication Technology (ICT) program had the highest representation (n = 31; 11.0%), followed by MPhil Counselling Psychology (1.8%), MBA Accounting (1.8%), and MPhil Science Education (1.4%). Other MPhil programs, such as Curriculum and Pedagogic Studies, Linguistics, Geography, and Music Education, had minimal representation, each comprising less than 1% of the sample. Only 1.3% of the respondents were PhD students, divided among Science Education and Art and Culture. This suggests that while postgraduate engagement is present, it is relatively limited in comparison to undergraduate participation, possibly due to smaller program enrolment sizes or lower accessibility to doctoral-level studies. ICT Education accounted for the largest proportion of undergraduate respondents (n = 99; 35.1%), indicating a high level of interest or accessibility in this field. Other notable programs included Integrated Science (7.4%), Health Administration and Education (2.8%), and Mathematics Education (2.8%). Several programs such as Political Science Education, Chemistry Education, Human Resource Management, and Basic Education had moderate representation (1.4%–2.1%). A small number of students were enrolled in programs like Theatre Arts, History Education, and Procurement and Supply Chain Management, each constituting less than 1% of the total sample. The data indicate a diverse representation of academic programs, with ICT-related disciplines leading in both

postgraduate and undergraduate levels. The variety in disciplines enhances the generalizability of the study's findings across academic contexts.

Table 4.4: GPA of respondents

Respondents GPA	Frequency	Percent
1.00 to 1.99 (Pass)	6	2.1
2.0 to 2.49 (Third Class)	18	6.4
2.5 to 2.99 (Lower)	61	21.6
3.0 to 3.49 (Upper)	151	53.5
3.5 to 4.0 (First Class)	46	16.3
Total	282	100.0

From the table 4.4, it shows that Upper class being the highest GPA recorded 53.5%(n=151). The lower-class category was next with 21.6%(n=61). Also 16.3%(n=46) was recorded for respondents who were in the first-class GPA category. Respondents in the third-class category recorded 6.4%(n=18). Lastly, the least class of GPA recorded was pass class which was 2.1%(n=6)

Table 4.5: Devices Respondents use to Access Social Media Platforms

Devices used to Access social media	Responses (n)	Percent of Cases
Mobile Phone	274	97.2%
Tablet	13	4.6%
Laptop	113	40.1%
Desktop	11	3.9%
Total	411	145.7%

The study investigated the type of devices students use to access social media platform. A multiple response item was used to collect this data hence the total percentage exceeds 100%. The total number of responses recorded was 411. The table (4.7) shows

the distribution of the following; majority of students 97.02%(n=274) use mobile phones to access the various social media platforms. 40.01% (n=113) of respondents use laptop to access social media platforms. This was followed by 4.06% (n=13) respondents who selected the use of tablets to access social media platforms. Lastly, the least recorded was 3.09%(n=11) use desktop to access social media platforms.

Table 4.6: Social media platforms used by respondents.

Social Media Platforms	Responses (n)	Percent of Cases
Facebook	250	89.0%
Whatsapp	276	98.2%
Twitter, now X	156	55.5%
Snapchat	154	54.8%
Tiktok	153	54.4%
Instagram	178	63.3%
Youtube	216	76.9%
Telegram	237	84.3%
Likee	10	3.6%
Pinterest	51	18.1%
LinkedIn	96	34.2%
Threads	30	10.7%
Others	7	2.5%
Total	1814	645.6%

Table 4.6 lists various social media platforms of which respondents have accounts with.

The study investigated the type of devices students use to access social media platform.

A multiple response item was used to collect this data hence the total number of responses exceeded 100%. The total number of responses recorded was 1814. It was found that 98.02% (n=276) of respondents use WhatsApp which was the most used among the listed social media platforms in the study. This was followed by Facebook of 89.0% (n=250). Telegram came next with 84.03% (n=237) as many students have the opportunity of sharing and receiving large files on the platform. YouTube followed with 76.09%(n=216). Instagram recorded 63.06% (n=178), Twitter recorded 55.6% (n=156), Snapchat with 54.08%(n=154), Tiktok with 54.4% (n=153), LinkedIn with 34.02% (n=96), Threads with 10.07% (n=30), Likee with 3.6% (n=10), Others which

includes the likes of Jodel, Tinder, Discord, Reddit, and Kakoa Talk recorded 2.05% (n=7)

Table 4.7: How frequently Respondents check on Social Media Accounts in a week

	Frequency	Percent
Every hour in day	95	33.7
Daily	173	61.3
Every two days	8	2.8
Every three days	1	.4
Once a week	5	1.8
Total	282	100.0

Out of 282 responses, 33.7% (n=95) use social media on an hourly basis everyday within the week. 61.3%(n=173) use social media daily. 2.8% (n=8) are those who use social media for every two days, 1.8%(n=5) people out of 272 responses use social media every two days. Lastly, only one person 0.4% (n=1) from the respondents of the study use social media once every three days.

Table 4.8: Number of Hours Spent on social media in a day

Number of Hours	Frequency	Percent
Less than 2hours	85	30.1
3 hours	45	16.0
4 to 5 hours	68	24.1
6 to 7 hours	37	13.1
More than 7 hours	47	16.7
Total	282	100.0

Table 4.8 presents data on the number of hours students spend on social media daily. The analysis reveals varying levels of engagement across the sample of 282 respondents. The largest proportion of respondents (30.1%) reported spending less than

2 hours per day on social media. This indicates that nearly one-third of the students use social media sparingly, possibly reflecting disciplined usage habits or time constraints due to academic responsibilities. Further, 24.1% of the respondents indicated they spend 4 to 5 hours daily on social media, making this the second most common duration. This suggests a moderate to high level of engagement, which could either support academic activities or serve recreational purposes, depending on the nature of use. A total of 16.0% of students reported spending 3 hours daily on social media, while 13.1% use social media for 6 to 7 hours per day. Interestingly, 16.7% of the respondents indicated that they spend more than 7 hours per day on social media. This high level of usage may raise concerns about excessive or compulsive behavior, which could negatively impact academic performance, sleep quality, or social interactions. Overall, more than half of the respondents (approximately 54%) spend 3 hours or more on social media each day. This reflects a significant level of social media engagement among students, warranting closer attention to how such usage impacts their academic performance, time management, and well-being.

Table 4.9: Uses of social media

Uses of social media	Responses	Percent of Cases
To make friends/ socialize	147	52.1%
For entertainment/ relaxation purposes	189	67.0%
To find a suitable date	17	6.0%
To promote products or services	92	32.6%
To find employment	88	31.2%
Academic purposes	242	85.8%
Others	8	2.8%
Total	783	277.7%

Table (4.9) shows reasons why respondents use social media among students. A multiple response item was used to collect this data hence the total number of responses

exceeded 100%. The total number of responses recorded was 783. 85.08% (n=242) of respondents reported using social media for academic purposes. This explains that a substantial percentage of respondents use social media for academic purposes. This suggests that social media plays a significant role in supporting educational activities, such as accessing educational content, collaborating with peers, and engaging with their preferred academic communities. This was followed by the most common use of social media reported by respondents thus consumption of entertaining content. 67.00% (n=189) responses were using social media for entertainment/relaxation purposes. This suggests that majority of individuals utilize social media primarily for easing themselves of stress. More so, 52.01%(n=147) of respondents use social media for socialisation purposes. This is an indication that most respondents prefer online socialisation and friendships. Additionally, 32.06%(n=92) of respondents reported using social media to promote products or services. 31.02% (n=88) of respondents noted that they use social media to find employment. This is an indication that social media platforms serve as an important channel for marketing and job-seeking activities for some individuals. More so, 6.00%(n=17) respondents reported using social media to find a suitable date. This means that some respondents make a conscious effort of finding love on social media. Lastly, 2.08%(n=8) of respondents reported using social media for other purposes which included following trendy international news, using it to impact their world through personal life stories, and to join online prayers and preachings and the likes. These purposes represent a smaller proportion of overall social media usage.

Table 4.10: Period of Respondent's Social Media Usage

Period of Social Media Use	Responses (n)	Percent of Cases
Simultaneously with whatever I am doing	111	39.5%
During my free time	198	70.5%
while at school/university/work	86	30.6%
During occasions	66	23.5%
During meal times	59	21.0%
Any spare time	162	57.7%
Others	2	0.7%
Total	684	243.4%

A multiple response item was used to collect this data hence the total number of responses exceeded 100%. The total number of responses recorded was 683. From Table (4.10), 70.05% (n=198) of respondents reported using social media during their free time. This was the most common period of social media use reported by respondents. This explains that many individuals utilize social media as a leisure activity during periods of relaxation or downtime. Also, the other common period of social media use reported by respondents 57.07%(n=162) is at any spare time. This indicates respondents in this category are intentional of using social media in their spare time. The next most common use reported by respondents 39.05% (n=111) is using social media simultaneously with whatever they are doing. This indicates a tendency for multitasking behaviour among respondents, where individuals integrate social media usage with other daily activities or tasks. More so, 30.06% respondents (n=86) reported using social media while at school/university/work as the other common period of social media use. Moreover, 23.05%(n=66) of respondents reported using social media during occasions. This is one of the least common uses of social media among the respondents of this community.

21.0% (n=59) respondents also reported using social media during meal times. This is an indication of poor eating habit. Lastly, 0.07%(n=2) of respondents reported using social media during other periods. Others included game time, casual conversations and the likes.

Table 4.11: Respondents' Grade Point Average (GPA)

GPA	Frequency	Percent (%)
1.00 to 1.99 (Pass)	6	2.1
2.0 to 2.49 (Third Class)	18	6.4
2.5 to 2.99 (second Class Lower)	61	21.6
3.0 to 3.49 (Second Class Upper)	151	53.5
3.5 to 4.0 (First Class)	46	16.3
Total	282	100.0

Table 4.11 shows the distribution of the number of respondents in each independent group according to their GPA. Majority of the respondents (53.5%, n=151) are in the Second-class Upper group. Students in this range attained GPAs between 3.00 and 3.49, reflecting a high level of academic achievement which is commendable. This was followed by students in the second-class lower group (21.6% n=61). The second-class lower group of students are average students who have achieved GPAs between 2.50 and 2.99. More so, 16.3% (n=46) of respondents reported being in the First-Class group. This category of students has GPAs range between 3.50 and 4.00, indicating excellent academic performance. Furthermore, 6.4% (n=18) of respondents reported being in the third class which indicates satisfactory performance. The last category which is the least recorded was for the Pass Class group (2.1%, n=6). This group indicates a fair pass with low academic performance.

Table 4.12: Respondents Sleep Duration Across Different GPA. Groups

GPA Group	Sleep duration				
	<4 hrs	4 hrs	6 hrs	8 hrs	>8 hrs
First Class	1 (0.4%)	2 (0.7%)	25 (8.9%)	12 (4.3%)	0 (0.0%)
Second-Class Upper	4 (1.4%)	20 (7.1%)	72 (25.5%)	40 (14.2%)	15 (5.3%)
Second-Class Lower	2 (0.7%)	5 (1.8%)	33 (11.7%)	14 (5.0%)	7 (2.5%)
Third Class	3 (1.1%)	2 (0.7%)	6 (2.1%)	6 (2.1%)	1 (0.4%)
Pass	0 (0.0%)	1 (0.4%)	4 (1.4%)	1 (0.4%)	0 (0.0%)

Table 4.12 illustrates the relationship between students' GPA and their reported sleep duration. Second-Class Upper students dominate the sample and are most represented in the 6-hour (25.5%) and 8-hour (14.2%) sleep categories, suggesting a balanced sleep pattern that may support academic engagement. First-Class students mainly reported 6 hours of sleep (8.9%) with no students exceeding 8 hours, indicating a possible tendency to sacrifice sleep for academic pursuits. Second-Class Lower students also reported similar patterns, though with slightly fewer in longer sleep durations. Third Class and Pass students showed minimal representation across all sleep categories, especially in the 6–8-hour range, suggesting irregular or inconsistent sleep habits. Very short (<4 hours) and very long (>8 hours) sleep durations were rare, observed mostly among Second-Class Upper- and Third-Class students. This distribution suggests that moderate sleep duration (6–8 hours) is common among high-performing students, though some may sacrifice sleep, particularly in the First-Class category. The lack of students sleeping more than 8 hours in the First-Class group might reflect a trade-off between rest and academic demands. However, the presence of balanced sleep patterns among Second-Class students, especially Second-Class Upper, suggests that adequate sleep may still support strong academic performance.

4.3 Results Related to Each Objective of Study

Objective 1: To establish relationship between Social Media Use, Social Skills, and Sleep Quality in relation to students' Academic Performance

Table 4.13: Descriptive Statistics for Key Variables (N = 282)

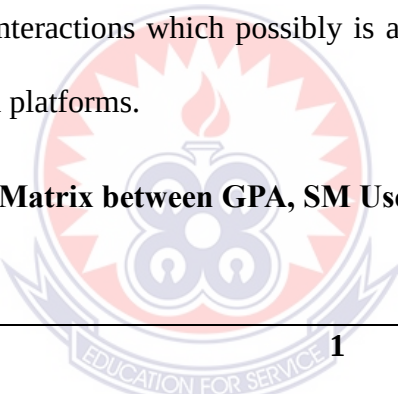
Variable	Mean	SD
GPA	2.88	0.47
Daily Social Media Check-ins	5.42	1.79
SM Academic Distraction (1–5)	3.11	1.14
Hours of Sleep per Night	5.87	1.20
SM Interruption During Sleep (1–5)	3.42	1.03
Face-to-Face Social Skills Score (avg of 5 items)	3.26	0.82

The table presents the central tendencies and dispersion measures for six key variables related to academic performance, social media usage, sleep behaviour, and interpersonal skills. Together, these variables offer a comprehensive overview of the behavioural and psychosocial factors potentially influencing students' academic and personal well-being.

Grade Point Average (GPA) ($M = 2.88$, $SD = 0.47$) reflects a moderately good level of academic performance among students. However, the observed variability suggests that academic outcomes differ considerably across the sample, possibly due to individual differences in study habits, external stressors, or lifestyle factors. Turning to social media usage, Daily Social Media Check-ins ($M = 5.42$, $SD = 1.79$) reveal a high frequency of engagement, with students checking social media more than five times daily on average. This finding underscores the pervasive nature of digital connectivity in students' everyday routines. Similarly, social media Academic Distraction ($M = 3.11$, $SD = 1.14$) suggests a moderate level of interference with academic

responsibilities, highlighting the potentially detrimental effects of social media on concentration and productivity. In terms of sleep behaviour, Average Hours of Night Sleep ($M = 5.87$, $SD = 1.20$) fall below the recommended range of 7 to 9 hours, indicating a general trend of sleep insufficiency within the student population. This is further supported by the score for Social Media Interruption During Sleep ($M = 3.42$, $SD = 1.03$), which shows that many students report sleep disruptions caused by social media, pointing to challenges related to digital hygiene and bedtime routines. Finally, Face-to-Face Social Skills ($M = 3.26$, $SD = 0.82$) suggest a moderate level of competence in interpersonal communication. However, the standard deviation indicates notable variation, implying that while some students may be socially adept, others may struggle with in-person interactions which possibly is as a result of increased reliance on digital communication platforms.

Table 4.14: Correlation Matrix between GPA, SM Use, Social Skills, and Sleep Quality



Variable	1	2	3	4	5
1. GPA	1				
2. Daily SM Check-ins	-0.29	1			
3. SM Academic Distraction	-0.38	0.44	1		
4. Sleep Hours	0.21	-0.33	-0.29	1	
5. Social Skills (FF Interactions)	0.31	-0.19	-0.24	0.27	1

The correlation matrix provides insight into the interrelationships among students' academic performance (GPA), social media (SM) usage behaviours, social skills, and sleep quality. A negative correlation was observed between GPA and both daily social media check-ins ($r = -0.29$) and academic distraction due to SM use ($r = -0.38$). These findings suggest that frequent engagement with social media, particularly when it

disrupts academic activities, is moderately associated with lower academic performance. Also, there is a positive correlation between GPA and sleep duration ($r = 0.21$), indicating that students who attain more sleep tend to perform better academically. This association underscores the academic benefits of sufficient and restorative sleep. A further positive relationship exists between GPA and face-to-face social skills ($r = 0.31$), implying that students with stronger interpersonal competencies are more likely to excel in their academic pursuits. This may reflect the broader cognitive and emotional advantages conferred by well-developed social functioning. Moreover, increased social media activity, particularly daily check-ins ($r = -0.33$) and academic distraction caused by SM ($r = -0.29$), is negatively associated with sleep duration. These patterns indicate that excessive or poorly regulated social media use may contribute to shorter sleep times, potentially through delayed bedtimes or cognitive overstimulation. The data also reveal negative correlations between daily social media check-ins ($r = -0.19$) and academic distraction from SM ($r = -0.24$) with social skills. This suggests that excessive or disruptive social media use may hinder the development or maintenance of real-world interpersonal competencies, possibly due to reduced face-to-face interactions. Finally, a positive correlation ($r = 0.27$) between sleep duration and social skills suggests that students who sleep longer may exhibit better social functioning. This relationship could be attributed to improved emotional regulation, cognitive processing, and mood stability resulting from adequate rest.

Table 4.15: Multiple Regression Analysis: Predicting Academic Performance
Based on Social Media Usage, Social Skills, and Sleep Quality of the respondents

Predictor	B	SE B	β (Beta)	t	p
Constant	1.824	0.263	—	6.937	<.001
Social Media Usage	-0.221	0.058	-0.243	-3.793	<.001
Social Skills	0.331	0.072	0.289	4.597	<.001
Sleep Quality	0.204	0.065	0.184	3.138	0.002

$R = 0.487$, $R^2 = 0.237$, Adjusted $R^2 = 0.229$, $F(3, 278) = 28.79$, $p < .001$

This multiple regression model aimed to explore how three predictor variables; Social Media Usage, Social Skills, and Sleep Quality, influence the academic performance of university students, as measured by their GPA. The goal was to determine whether these behavioural and psychosocial variables significantly predict academic outcomes, providing empirical evidence for targeted educational and well-being interventions. Multiple regression was selected due to its capacity to simultaneously assess the individual and collective predictive power of multiple continuous variables on a single outcome.

Prior to the analysis, the data were screened for missing values, outliers, multicollinearity, and normality. Pearson correlation coefficients revealed acceptable levels of linearity between the independent and dependent variables. Variance Inflation Factor (VIF) scores for all predictors were below 5, indicating no multicollinearity. The Durbin-Watson statistic was close to 2, suggesting independence of residuals.

From Table 4.15, the regression analysis revealed the following model fit statistics: $R = 0.487$, $R^2 = 0.237$, Adjusted $R^2 = 0.229$, $F(3, 278) = 28.79$, $p < .001$. This indicates that the model significantly explains approximately 23.7% of the variance in students' GPA based on their social media usage, social skills, and sleep quality. For Social Media

Usage with GPA ($B = -0.221$, $\beta = -0.243$, $p < .001$), the result is statistically significant and shows a negative relationship between social media usage and GPA. Specifically, for every one-unit increase in social media usage, students' GPA decreases by 0.221 units, controlling for the other predictors. The standardized coefficient ($\beta = -0.243$) also indicates a moderate negative effect, suggesting that higher levels of usage are associated with lower academic performance. This supports prior research suggesting that excessive or poorly regulated social media use is detrimental to academic performance. However, the result on the analysis of Social Skills with GPA ($B = 0.331$, $\beta = 0.289$, $p < .001$) exhibits a positive and statistically significant relationship with GPA. A one-unit increase in social skills is associated with a 0.331 unit increase in GPA. The relatively strong standardized coefficient ($\beta = 0.289$) indicates that social skills are a meaningful contributor to academic success, possibly due to enhanced collaboration, classroom engagement, and self-regulation. Finally, the analysis of Sleep Quality with GPA result ($B = 0.204$, $\beta = 0.184$, $p = .002$) shows a significant positive relationship with GPA. Students who report better sleep quality tend to have higher academic performance, as reflected by the 0.204 increase in GPA for every unit increase in sleep quality. The regression model demonstrates that, while social media usage negatively predicts GPA, both social skills and sleep quality serve as positive predictors.

Qualitative Analysis: Thematic Exploration of Social Media Usage and Academic Performance among University students.

The study explored the role of social media in students' academic performance. Open-ended responses were collected and thematically analysed. Responses were grouped under two major categories: (1) how social media enhances academic performance, and (2) how it limits academic achievement.

A. How Social Media usage Enhances Academic Performance

Respondents described multiple ways in which social media contributes positively to their academic pursuits. These benefits were categorized into key themes as follows:

- i. Access to Educational Resources:** Many respondents highlighted the availability of academic content such as tutorials, articles, research tools, and academic forums through platforms like YouTube, X (formerly Twitter), Zoom, and LMS portals. This enabled them to better understand complex topics and enhance their academic output. As one respondent noted, *“Social media has helped in my academic work by providing access to educational resources and research materials online.”*
- ii. Collaboration and Peer Interaction:** Social media usage was credited for facilitating academic discussions, idea exchange, and collaborative projects. Respondents indicate that, they frequently interacted with peers and knowledgeable individuals to seek academic assistance and share resources. One respondent stated, *“It helps me reach out to more knowledgeable people to help me with assignments.”*
- iii. Relaxation and Stress Relief:** Some respondents stated that, they used social after long academic sessions as a way of relaxation. Engaging with entertaining content helped reduce stress and prepare them mentally for further study. As one respondent explained, *“It helps me release pressure and stress after long hours of studies.”*
- iv. Research and Information Gathering:** Respondents noted that they frequently used social media for academic research, including accessing course materials, sharing surveys, identifying research gaps, and staying informed on current academic trends. Statements such as *“It helps me in my research work”* and *“I use it to identify research problems”* were common.
- v. Learning Enhancement:** Respondents noted improved comprehension through exposure to diverse viewpoints and explanations, especially from academic

influencers and educators. Video platforms like YouTube were highlighted as particularly helpful in simplifying complex theories. One respondent shared, *“YouTube videos enable me to understand the theories.”*

vi. Motivation and Inspiration: Motivational content, success stories, and encouraging messages on social media helped students stay focused during challenging academic periods. As expressed by a respondent, *“Listening to motivational speeches from successful people on social media encourages me to keep going.”*

vii. Convenience and Flexibility: Respondents also stated that they use social media to access study materials at their convenience, allowing for self-paced learning. Platforms were used to retrieve timetables, slides, past questions, and assessments. A respondent noted, *“I retrieve academic information at my convenience.”*

viii. Practical Learning and Skill Development: Respondents reported gaining practical knowledge and skills through instructional videos and digital tools shared on social media. One said, *“I have gained a lot of practical skills and solutions from YouTube.”*

ix. Networking and Professional Development: Most of the respondent indicated that they use social media to follow scholars, academics, and professionals, fostering exposure to career advice, mentorship opportunities, and current developments in their fields. A respondent remarked, *“I follow learned people in my field of study on social media.”*

x. Sharing and Collaboration Platforms: The respondents indicated that social media served as a hub for sharing study materials and encouraging academic engagement among peers. Respondents state that they used platforms like

WhatsApp, Facebook groups, and Telegram to facilitate academic support networks.

B). How Social Media Limits Academic Performance

Despite its advantages, respondents also acknowledged several ways social media negatively influence their academic performance. Key limitations include:

- i. Time Consumption:** A dominant theme was excessive time spent on social media at the expense of academic work. Respondents described how they lost valuable study hours scrolling through feeds or engaging in non-academic content. One remarked, *“It serves as a major distraction, consuming valuable study time.”*
- ii. Sleep Disruption:** Late-night browsing led to sleep deprivation, which affected cognitive functioning and academic engagement. Respondents reported feeling tired during lectures and struggling to retain information. As one put it, *“Late-night chatting reduces sleep, which is impairing my cognitive function.”*
- iii. Addiction and Overuse:** Many respondents described social media as addictive, leading to habitual overuse even during times set aside for academic activities. Comments such as *“I spend all my time on social media”* and *“I always reschedule my study time due to social media”* reflect the depth of the issue.
- iv. Notification Disturbances:** The constant stream of alerts and notifications was cited as a major distraction. Notifications during study or class sessions disrupted concentration and reduced academic productivity. One respondent shared, *“It distracts me and I am unable to learn.”*
- v. Reduced Concentration and Focus:** Social media engagement was said to hinder concentration during lectures or personal study time, contributing to academic decline. A respondent confessed, *“It steals all my dedicated time for studies, and as a result, my GPA is retrogressing.”*

vi. Procrastination: Some students admitted to using social media as a form of avoidance, delaying academic tasks or postponing study sessions. One respondent wrote, *“Distraction from studies makes me procrastinate.”*

vii. Influence on Learning Style: Respondents expressed concern that frequent exposure to informal language and passive consumption of content affected their writing and academic expression. One said, *“It affects my writing style and introduces social media jargons into my essays.”*

viii. Interference with Academic Tasks: Rather than engaging in planned academic tasks, some students found themselves consumed by social media activities. As one explained, *“I often stay glued to social media even though I need to study.”*

ix. Lack of Self-Regulation: Several respondents acknowledged their struggle with time management and self-discipline when it came to controlling social media use. One admitted, *“Prolonged usage eats into the time I allocate to studying or assignments.”*

In summary, the qualitative findings demonstrate a dual perspective on the role of social media in academic life. On one hand, social media platforms serve as valuable tools for accessing information, enhancing collaboration, supporting learning, and providing motivation. On the other hand, unregulated or excessive use of social media especially during critical study hours can undermine academic progress by causing distractions, sleep disturbances, procrastination, and reduced cognitive focus. Therefore, while social media offers significant academic advantages, its effective use requires self-discipline and structured usage patterns to avoid academic setbacks. Educators, students, and institutions may benefit from promoting digital literacy and responsible social media habits to maximize academic benefits while mitigating associated risks.

Research Objective 2: To examine how social media usage influences students' social skills.

Table 4.16: Differences in Social Skills based Social Media Usage Group

Social Media Usage Group	N	Mean Social Skills Score	SD
Low Usage	95	3.52	0.68
Moderate Usage	110	3.29	0.71
High Usage	77	2.85	0.84

The table presents the mean social skills scores among students, categorized according to their levels of social media usage. This comparative analysis offers insight into how varying degrees of engagement with social media may be associated with students' face-to-face interpersonal competencies. The Students in the Low Usage Group (n = 95) exhibit the highest average social skills score (M = 3.52, SD = 0.68). This suggests that limited interaction with social media platforms may be positively associated with stronger in-person social abilities, possibly due to more frequent real-life social engagement and reduced reliance on digital communication. In contrast, the Moderate Usage Group (n = 110) reports a slightly lower mean social skills score (M = 3.29, SD = 0.71). While this group still demonstrates reasonably good interpersonal skills, the reduction relative to the low usage group may reflect the beginning of a shift in social behaviour patterns, wherein increasing digital interaction slightly displaces traditional face-to-face communication. The High Usage Group (n = 77) presents the lowest average social skills score (M = 2.85, SD = 0.84), indicating a more pronounced decline in face-to-face social competence. This finding supports the notion that frequent or excessive use of social media may adversely affect students' ability to engage effectively in real-world social contexts, possibly due to reduced opportunities for in-person interaction, diminished non-verbal communication skills, or heightened

dependence on virtual platforms for socializing. Collectively, these results suggest a negative gradient between social media usage intensity and the development of interpersonal skills, warranting further investigation into the causal mechanisms and potential interventions to promote balanced digital behaviour.

Table 4.17: Correlation between SMU Purpose and Specific Social Skill Items

Social Media Usage Purpose	Initiating Convo (r)	Empathy (r)	Prefers Face-to-Face Convo (r)
Academic Purposes	.26**	.21**	.19*
Entertainment / Stress Relief	-.19*	-.23**	-.27**
Promoting Products / Networking	.14*	.09	.11

* $p < .05$, ** $p < .01$

With reference to Table 4.17, the Pearson's correlation analysis examined the relationship between various purposes of social media (SM) usage and specific dimensions of social skills among the respondents. These dimensions included initiating conversation, empathy, and preference for face-to-face (FF) conversation. Pearson's correlation coefficients (r) were computed to identify the strength and direction of these relationships. The data suggest that academic use of social media is positively correlated with stronger social skills. Specifically, students who primarily use social media for academic purposes are more likely to initiate conversations ($r = .26$, $p < .01$), express empathy ($r = .21$, $p < .01$), and prefer face-to-face communication ($r = .19$, $p < .05$). This indicates that academic engagement on social platforms may foster interpersonal competencies by facilitating collaborative learning, academic discussions, and information sharing.

Conversely, social media usage for entertainment or stress relief was negatively correlated with all measured aspects of social skills, including initiating conversations ($r = -.19, p < .05$), empathy ($r = -.23, p < .01$), and preference for face-to-face interactions ($r = -.27, p < .01$). These inverse relationships indicate that passive or entertainment-driven SM use may undermine face-to-face communication preferences and emotional attachments. Excessive reliance on digital platforms for escape or distraction may lead to reduced opportunities for meaningful in-person socialization, potentially impacting students' ability to develop core social competencies. Also, the use of social media for product promotion or networking had a modest but statistically significant positive correlation with initiating conversations ($r = .14, p < .05$), though no significant relationship was found with empathy or preference for face-to-face communication. This might indicate that while networking activity may improve communicative assertiveness, it may not necessarily translate into deeper emotional or relational skills.

In summary, the findings highlight that the purpose of social media use significantly conditions its impact on social skill development. Purposeful, academically oriented use tends to enhance social capabilities, whereas recreational or escapist use may detract from them.

Qualitative Analysis: Influence of Social Media Usage on Social Skills of the Students

Open-ended questions were posed to respondents to explore their views on how social media usage influences their social skills. The qualitative responses revealed two distinct but interrelated thematic strands: ways in which social media enhances social skills, and ways in which it limits face-to-face communication and interaction.

Respondents' perspectives were analysed and organized into twelve themes under each strand.

A). How Social Media Usage Improves Social Skills

- i. Enhanced Connectivity, Networking and Reconnection:** Respondents overwhelmingly acknowledged that social media platforms enable them to connect with individuals across different regions and cultures. Through platforms such as Facebook, LinkedIn, and Twitter, respondents indicated that they formed relationships that would otherwise be impossible due to geographic barriers. Some also emphasized how social media facilitates communication and helps revive old friendships. For instance, one respondent stated, *"It has helped a lot in a wider connection to meet people from different cultures."* Another shared that, *"Since proximity has become a barrier, I fall on social media to reach friends and family across the globe."*
- ii. Enhanced Social Confidence and Interaction:** Respondents noted that social media platforms offer a less intimidating space to practice and develop communication skills. For some, interacting online first helped them build the confidence necessary for real-life social interactions. One respondent remarked, *"It has improved my communication skills and made communication easy for me."*
- iii. Opportunities for Expression and Creativity:** Social media use was seen as a creative outlet, allowing respondents to express themselves freely through images, videos, and personal reflections. This self-expression also fostered deeper interpersonal engagement. As one respondent put it, *"I'm able to express feelings I can't express in face-to-face interactions."*
- iv. Exposure to Diverse Cultures and Perspectives:** Respondents reported that social media has broadened their worldview by exposing them to global perspectives.

They learned about cultural differences and developed a greater appreciation for diversity, which in turn enhanced their social adaptability. A respondent explained, *“Through social media, I’ve made friends worldwide and understood individual differences.”*

v. Supportive Communities and Resources: Social media usage also provided access to communities and resources relevant to respondents’ interests and personal development. Joining groups on platforms like Facebook or LinkedIn connected respondents to mentors, peers, and experts who positively influenced their lives. One respondent shared, *“I’ve met prominent people on LinkedIn who have helped shape my career.”*

vi. Enhanced Social Awareness and Engagement: Social media usage helped respondents become more socially conscious and active. Platforms served as spaces for civic engagement and awareness of social causes. Some respondents reported being able to voice their opinions, participate in campaigns, and engage in societal dialogues. One respondent mentioned, *“It has groomed me in a way that I can be bold to approach people.”*

vii. Development of Digital Literacy and Communication Skills: Respondents highlighted improvements in writing, grammar, and critical thinking due to social media usage. They cited features like auto-correction and grammar apps linked to platforms as enhancing their written communication. A respondent commented, *“It has helped in sentence construction due to grammar-checking apps.”*

viii. Learning and Personal Growth Opportunities: Respondents reported that social media exposes them to informative content, tutorials, and motivational materials that support personal development. Learning from influencers and content creators inspired many to improve their skills and build social competence. A

respondent noted, *“Social media has exposed me to experiences that helped me build my social skills.”*

ix. Increased Social Engagement and Participation: Platforms such as Facebook Events and Meetup enabled respondents to discover and attend social activities, further enriching their social lives. They found it easier to identify and engage with individuals of similar interests. One respondent shared, *“It’s easy to identify people with similar interests and have meaningful interactions.”*

x. Cost-Effective Communication: Respondents appreciated the affordability of communicating via social media. Rather than traveling long distances, they used video calls and messaging apps to maintain relationships at a lower cost. One respondent shared, *“Through video call, I can see my relatives who traveled long ago without spending money to visit them.”*

B. How Social Media Usage Limits Social Skills in Face-to-Face Interactions

i. Decreased In-Person Interaction: Respondents indicated that heavy reliance on social media reduces the frequency and quality of face-to-face interactions. One respondent stated, *“Spending too much time on social media has limited my opportunities to interact with people in real life.”*

ii. Decreased Confidence: Many respondents expressed that while they feel comfortable interacting online, they struggle with in-person conversations. Fear of judgment and rejection has decreased their confidence offline. A respondent said, *“I cannot speak boldly in person, but online, I feel comfortable.”*

iii. Dependency on Technology: Respondents noted that constant use of mobile devices for communication diminishes their traditional communication skills, such as eye contact and active listening. One respondent admitted, *“I’m always online interacting with virtual friends and often ignore real-life conversations.”*

- iv. Shyness and Social Anxiety:** Social media usage has become a retreat for shy or socially anxious individuals. Respondents reported that digital communication offered emotional security, making them avoid in-person socialization. One respondent commented, *“I’d rather chat online than meet people in real life because I’m shy.”*
- v. Difficulty Initiating and Sustaining Conversations:** Due to reliance on digital platforms, respondents found it difficult to initiate or sustain physical conversations. Some respondents mentioned that they rely on emojis and shorthand, which do not translate well in offline interactions. A respondent shared, *“Use of jargon and contracted words affects how I start and sustain conversations in person.”*
- vi. Limited Vocabulary and Communication Skills:** Respondents confessed that frequent use of slang and shorthand online has negatively affected their formal speaking and vocabulary development. A respondent explained, *“Because I’m always on my phone, I have poor communication skills.”*
- vii. Comfort and Convenience of Online Communication:** Some respondents preferred digital conversations over physical ones due to reduced pressure and the ability to control how they communicate. A respondent said, *“I can say anything on social media without facing the person—it’s easier.”*
- viii. Distraction and Reduced Attention:** Respondents reported that social media notifications often distracted them during face-to-face conversations, leading to divided attention. One respondent stated, *“Instead of having a real conversation, I keep checking my phone for updates.”*
- ix. Reduced Offline Socialization Opportunities:** Due to a false sense of social fulfillment online, respondents felt less inclined to participate in real-life social

activities. One respondent mentioned, *“I feel I already have enough friends online, so I don’t need more in real life.”*

- x. Difficulty Interpreting Emotions and Intentions:** Respondents highlighted the inability to interpret tone, emotion, and intent in text-based conversations. They also noted that individuals often behave differently online than they do in person. One respondent said, *“People seem friendly on social media, but in person, they are the opposite.”*

From the perspectives shared by respondents, it is clear that social media has a dual impact on social skills. On one hand, it offers opportunities for connection, confidence building, creativity, exposure, and personal growth. On the other hand, it can undermine in-person communication, reduce attention, and weaken real-world relationships when overused or misused. Understanding these dynamics can inform interventions aimed at encouraging more balanced and constructive social media usage among students and young adults.

Objective 3: To assess the extent to which social media notifications and interactions influence students’ sleep quality

Table 4.18: Descriptive Statistics – Social Media Usage habits and Sleep Quality

Indicators

Variable	Mean	SD	Min	Max
Frequent Night Notifications (1–5)	3.78	0.98	1	5
Feeling Compelled to Check Notifications (1–5)	3.31	1.06	1	5
Intermittent Feed Check Before Sleep (1–5)	3.66	1.02	1	5
Difficulty Falling Asleep After SM Use (1–5)	3.44	1.08	1	5
Average Hours of Night Sleep	5.87	1.20	3.5	9

Table 4.18 presents descriptive statistics on students’ social media notification behaviors and their impact on sleep quality, measured on a 5-point Likert scale.

Frequent Night Notifications ($M = 3.78$, $SD = 0.98$) indicates that a significant number of students regularly receive notifications during the night, which may contribute to sleep disturbances. Similarly, Feeling Compelled to Check Notifications ($M = 3.31$, $SD = 1.06$) reflects a moderate level of compulsiveness in responding to alerts, suggesting possible compulsive digital behavior. Moreover, Intermittent Feed Checking Before Sleep ($M = 3.66$, $SD = 1.02$) shows that students often scroll through social media feeds before bedtime, a practice commonly linked to delayed sleep onset. This is further supported by the finding on Difficulty Falling Asleep After Social Media Use ($M = 3.44$, $SD = 1.08$), which indicates that many students experience sleep latency, likely due to cognitive or emotional stimulation associated with online interactions. Lastly, the Average Hours of Night Sleep ($M = 5.87$, $SD = 1.20$) falls below the recommended 7–9 hours for healthy sleep, underscoring the prevalence of sleep insufficiency among the student population.

Table 4.19: Multiple Regression Analysis – Predicting Sleep Hours from SM

Notifications and usage Habits

Predictor	B	SE B	Beta	t	Sig.
Frequent Notifications	-0.22	0.07	-0.24	-3.14	.002
Compelled to Check Notifications	-0.19	0.06	-0.21	-2.98	.003
Intermittent Feed Checking	-0.17	0.05	-0.18	-3.40	.001
SM Use Helps Fall Back Asleep (reversed coded)	0.15	0.06	0.16	2.50	.013

$R^2 = 0.29$, $F(4, 277) = 26.91$, $p < .001$

From Table 4.19 A multiple regression analysis was conducted to evaluate how various social media (SM) use behaviors predict students' sleep hours. The predictors included frequency of notifications, compulsive checking of notifications, intermittent feed checking, and use of social media to fall back asleep (reverse coded). The regression

model was statistically significant, $F(4, 277) = 26.91, p < .001$, explaining approximately 29% of the variance in sleep hours ($R^2 = 0.29$). Three predictors had significant negative effects on sleep hours: Frequent Notifications significantly and negatively predicted sleep duration ($B = -0.22, \beta = -0.24, p = .002$). A higher frequency of notifications was associated with reduced sleep duration, suggesting that students who frequently receive notifications tend to sleep fewer hours. Similarly, compulsion to Check Notifications was also a significant negative predictor ($B = -0.19, \beta = -0.21, p = .003$). This indicates that students who felt compelled to check their phones in response to social media notifications also experienced reduced sleep, possibly due to behavioral hyper-vigilance or digital dependency. Also, Intermittent Feed Checking during the night was found to significantly reduced sleep hours ($B = -0.17, \beta = -0.18, p = .001$), indicating a negative impact on sleep hours which is consistent with findings on bedtime procrastination and cognitive arousal. Interestingly, one variable was positively associated with sleep. the item “SM Use Helps Fall Back Asleep” (reverse coded) was a positive predictor of sleep duration ($B = 0.15, \beta = 0.16, p = .013$). This implies that students who do not rely on social media to fall back asleep tended to have longer sleep durations. It suggests that using social media as a sleep aid may be maladaptive and counterproductive. In sum, the regression model demonstrates that problematic patterns of social media use, particularly those involving notification management and compulsive behavior, significantly undermine sleep quality.

Qualitative Analysis: Influence of Social Media Usage on Students’ Sleep Quality

To explore how social media usage affects sleep quality, respondents provide answers to open-ended questions on their lived experiences. Responses were organized into two major categories: perceived improvements and disruptions to sleep quality. The thematic analysis revealed following insights under each category.

A). How Social Media Use Improves Sleep Quality

- i. Mindful Use for Relaxation:** Some respondents reported that using social media intentionally before sleep, particularly to access relaxing content like comedy skits, soothing music, or meditative videos, helped ease mental stress. Such engagement fostered a calm emotional state conducive to sleep. As one respondent shared, *“Funny content I watch on social media always makes me excited, which makes me sleep well.”* Another added, *“Watching funny videos and chatting with friends prepares me emotionally for a sound sleep.”*
- ii. Positive Social Interactions:** Respondents noted that engaging in uplifting conversations or reading affirming messages from friends and family contributed to emotional well-being, helping them sleep more peacefully. The sense of connection and emotional security created by these interactions was seen as beneficial. One respondent reflected, *“Receiving positive messages before bedtime helps me sleep better.”*
- iii. Education on Sleep Hygiene:** Some respondents highlighted how educational content encountered on social media introduced them to the concept of sleep hygiene. These posts encouraged behaviors like maintaining a regular sleep schedule or limiting screen time before bed. For example, a respondent stated, *“Social media educated me on the need to sleep for normal functions of the brain.”*
- iv. Customized Sleep Solutions:** Personalized content such as calming music, storytelling videos, or sleep-promoting applications available via social media platforms were mentioned as aiding in the transition to sleep. These digital tools helped respondents who experienced occasional insomnia. A respondent remarked, *“When I’m finding it difficult to sleep, I go on social media, watch some videos, and I am able to fall asleep.”*

- v. **Supportive Sleep Communities:** A few respondents indicated that being part of online communities or groups focused on sleep wellness provided emotional support and practical advice. These communities helped normalize sleep challenges and provided access to shared coping strategies. One respondent noted, “Social media has helped me to relax through sleep-related communities.”
- vi. **Indirect Benefits:** Some respondents attributed their improved sleep to indirect emotional or mental relief offered by social media, such as stress reduction after engaging with positive content. “After social media helps me in releasing stress, I sleep,” a respondent explained.
- vii. **Positive Emotional Impact:** Encounters with uplifting stories, humorous content, or motivational posts positively influenced the emotional climate before bed. A respondent said, *“There are times you feel down. You can watch some videos or listen to audios that will cheer you up.”*

B). How Social Media Limits Sleep Quality

Despite the perceived benefits, many respondents acknowledged the adverse effects of social media usage on sleep quality. These limitations were grouped into ten prominent themes:

- i. **Excessive Screen Time Before Bed:** Many respondents described the habit of prolonged social media use at night, which led to eye strain, headaches, and general fatigue. These physical symptoms disrupted their ability to sleep and contributed to daytime tiredness. One respondent stated, *“Sometimes I wake up tired because I spend so much time on social media instead of sleeping.”*
- ii. **Stimulation and Mental Engagement:** Respondents reported that the interactive and fast-paced nature of social media kept their minds active, making it difficult to disengage mentally and transition into sleep. Responding to late-night notifications

or participating in conversations increased mental arousal. As one put it, *“Sometimes it gives me sleepless nights when I respond to notifications in the middle of my sleep.”*

- iii. **Blue Light Exposure:** The emission of blue light from device screens was widely cited as a factor disrupting melatonin production and circadian rhythm, making sleep initiation difficult. A respondent noted, *“Using it before bedtime disrupts my sleep due to the blue light emitted by screens.”*
- iv. **Emotional Arousal and Disturbances:** Late-night exposure to distressing news, conflictual comments, or emotionally provocative content heightened stress levels and led to emotional overstimulation. These emotional spikes interfered with the ability to relax. As one respondent explained, *“It leads to racing thoughts and anxiety, making it difficult to relax and fall asleep.”*
- v. **Delayed Bedtime and Sleep Onset:** Respondents frequently lost track of time due to immersive social media activity, leading to sleep procrastination and shortened sleep duration. *“Mostly, social media prevents me from sleeping early in the evening,”* one respondent remarked.
- vi. **Disruption of Sleep Architecture:** Beyond delayed sleep onset, respondents described experiencing fragmented sleep due to late-night notifications and habitual screen-checking. Such disturbances affected deeper stages of sleep, especially REM, which is critical for cognitive and emotional restoration. *“Having a phone nearby and receiving notifications during the night lead to frequent wake-ups,”* a respondent shared.
- vii. **Increased Stress and Anxiety:** Respondents reported heightened anxiety due to fear of missing out (FOMO), comparing their lives with others, or compulsively checking updates. This anxiety interfered with pre-sleep relaxation. *“When I wake*

up in the middle of the night, I pick up my phone to check notifications,” said one respondent.

viii. Interference with Sleep Hygiene Practices: Using social media close to bedtime interfered with key sleep-promoting routines, such as winding down in a quiet, screen-free environment. Some felt that their sleep hygiene had deteriorated due to their nighttime scrolling habits. *“Late-night browsing leads to reduced sleep and memory loss,”* one respondent lamented.

ix. Compulsive Use and Addiction: Several respondents acknowledged the addictive pull of social media, with some describing it as a habitual compulsion that they were unable to resist—even when they were aware of its negative effects. One said, *“It consumes my sleep time because of its addictive nature.”*

x. Effect on Daytime Functioning: Respondents linked disrupted sleep patterns to reduced alertness, poor academic or work performance, and irritability during the day. For some, the cumulative impact of poor sleep was significant. *“I stay awake to watch funny stuff which does not help me rest well,”* a respondent stated.

The qualitative analysis revealed a dual narrative surrounding social media use and sleep quality. On one hand, mindful and moderated use especially involving calming, supportive, or educational content, was seen by some respondents as contributing positively to sleep. On the other hand, a majority emphasized that overuse, especially before bedtime, led to cognitive stimulation, emotional disturbance, delayed sleep, and reduced sleep quality. In sum, respondents' experiences suggest that while social media can be harnessed for sleep improvement through intentional practices, unregulated or excessive use near bedtime poses significant risks to both sleep quantity and quality. These findings highlight the need for interventions focused on digital wellness,

including user education on healthy screen habits, sleep hygiene awareness, and mental health support within university settings.

4.4 Discussion of Findings

The findings were discussed in light of established literature and supported by both quantitative and qualitative data from the study.

4.4.1 Research Question 1. What is the relationship between Social Media Use, Social Skills, and Sleep Quality in relation to students' GPA?

This study investigates how social media usage, social skills, and sleep quality relate to students' academic performance, using Grade Point Average (GPA) as the performance indicator. The results revealed interesting relationships, highlighting how behavioral and psychosocial factors mediate academic outcomes among the students.

Social Media Usage and Academic Performance

The findings of the study (Table 4.15) revealed a statistically significant negative relationship between social media usage and academic performance (GPA) ($B = -0.221$, $\beta = -0.243$, $p < .001$). This indicates that for each one-unit increase in social media use, GPA is expected to decrease by 0.221 units, highlighting a moderate inverse effect even after controlling for other variables. This finding aligns with prior research emphasizing that excessive, non-academic social media use can undermine academic success. Tafesse (2022) similarly found that students using social media for over 90 minutes daily experienced academic decline, supporting the concept of an “inverted U-shaped” relationship, where moderate use of social media may be neutral or beneficial, but excessive engagement leads to reduced academic performance. Also, Huang (2018) confirms a significant negative correlation, especially when social media usage is measured by time spent rather than frequency of access. In addition, the finding is consistent with research by Caratiquit and Caratiquit (2023), who found that social

media addiction led to academic procrastination, ultimately lowering performance. Although procrastination was not directly measured in the present study, the inverse GPA relationship suggests similar behavioral mechanisms such as distraction, time displacement, and diminished concentration. Adding, Su and Huang (2021) states that the academic impact of social media use is conditional, not deterministic, its effect depends on how it interacts with academic engagement. When used constructively, social media may support learning; however, passive or excessive use is more likely to have adverse effects. The study's findings also echo results from Ghana (Nurudeen et al., 2023), South Asia (Shahjahan et al., 2021), and Africa (Alaika et al., 2020), affirming global concerns about social media's academic risks.

This finding supports the Uses and Gratifications Theory (UGT), particularly its emphasis on gratification misalignment, where intended benefits such as relaxation or information seeking often lead to academic distraction and time displacement (Sundar & Limperos, 2013). As Tafesse (2022) and Huang (2018) suggest, it is not mere usage but its purpose and intensity that influence outcomes. Passive, entertainment-focused engagement compromises attention, planning, and self-regulation, ultimately impairing cognitive performance and learning consistency. Management of the university should respond with targeted interventions such as digital literacy programs and self-regulation strategies to promote mindful, academically supportive social media use

Social Skills and Academic Performance

The regression analysis (Table 4.15) of the relationship between academic performance and Social Skills of the respondents reveals a positive and statistically significant relationship between social skills and academic performance ($B = 0.331$, $\beta = 0.289$, $p < .001$), suggesting that a one-unit increase in social skills is associated with a 0.331-unit increase in GPA. The relatively strong standardized beta coefficient ($\beta = 0.289$) further

underscores the meaningful contribution of social skills to students' academic success. This finding is consistent with existing literature which highlights the multifaceted role social skill plays in educational attainment. As noted by Jones et al. (2015), social skills including communication, empathy, emotional regulation, and collaboration are increasingly recognized as critical to student academic engagement and achievement, particularly in higher education environments that demand peer collaboration and active participation. Students with strong social skills are more likely to communicate effectively in group settings, build academic support networks, and seek clarification or assistance, thereby enhancing both cognitive and emotional resilience. Empirical evidence from Tabassum, Akhter, and Iqbal (2020) supports this view, emphasizing that interpersonal communication and emotional regulation are among the strongest predictors of GPA. The finding of present study confirms these results, suggesting that socially skilled students are better equipped to navigate the interpersonal dynamics of university life and persist through academic challenges. Furthermore, Malik et al. (2025) emphasized the indirect mechanisms through which social skill enhances academic outcomes, particularly through improved relationships with peers and faculty. These relationships foster access to academic resources, emotional support, and collaborative learning, forms of social capital that have been shown to positively influence educational outcomes (Rüppel et al., 2015).

Informed by UGT, this result illustrates how social connectivity functions not only as a gratification sought but also as an academic enabler. Effective communication, empathy, and emotional regulation allow students to form peer learning networks, interact with faculty, and manage academic stress (Jones et al., 2015; Tabassum et al., 2020). These interpersonal assets align with collaborative and participatory learning environments, where emotional intelligence and social agency directly support

motivation, problem-solving, and classroom engagement. Overall, the significant relationship between social skills and GPA found in this study highlights the importance of integrating social-emotional learning (SEL) frameworks into higher education. Targeted interventions such as peer mentoring, communication training, and collaborative learning strategies can enhance students' interpersonal capabilities, academic engagement, and ultimately, academic performance.

Sleep Quality and Academic Performance

The finding of the study (Table 4.15) also shows a significant positive relationship between sleep quality and academic performance ($B = 0.204$, $\beta = 0.184$, $p = .002$) reinforces an increasingly established finding in educational and psychological research: quality sleep is integral to academic success. Specifically, this result indicates that for every unit increase in self-reported sleep quality, students' GPA rises by approximately 0.204 points, highlighting a meaningful and statistically significant effect size. This finding aligns with recent empirical and meta-analytic literature, which emphasizes sleep as a foundational factor in cognitive functioning, emotional regulation, and academic persistence. As noted by Nakie et al. (2024), sleep disturbances are prevalent among university students and are often linked to digital overuse, academic overload, and erratic schedules. These disruptions compromise memory consolidation, concentration, and executive function which are core abilities needed for effective learning and high academic performance. Moreover, Lo et al. (2016) and Walker (2017) suggest that poor sleep quality not only limits cognitive efficiency but also exacerbates psychological distress, including anxiety and depression, which further deteriorate academic engagement. The bidirectional relationship between sleep and emotional well-being creates a feedback loop that undermines both learning capacity and motivation. The positive β coefficient found in

the current study also corroborates intervention-based findings, such as those from Chang et al. (2015), which show that improving sleep consistency can boost academic productivity. Thus, sleep quality does not merely co-occur with academic performance, it can actively shape it.

The positive correlation between sleep quality and academic performance in the current study is well-explained by Sleep and Circadian Rhythms Theory, which highlights the biological underpinnings of cognitive alertness and executive function (Borbély, 1982; Czeisler & Gooley, 2007). Poor sleep disrupts Process S and Process C, diminishing memory consolidation, attention span, and emotional regulation which are all critical for learning (Walker, 2017). Nighttime social media use, particularly on light-emitting devices, impairs melatonin secretion and induces cognitive arousal (Chang et al., 2015). Therefore, academic performance is indirectly shaped by both physiological misalignment and digital habits affecting sleep hygiene. In conclusion, the current study validates sleep quality as a critical, yet under-emphasized, predictor of academic achievement. This necessitates institutional strategies that prioritize sleep education, campus wellness infrastructures, and schedule accommodations, ensuring that students are both well-rested and optimally prepared for academic success.

4.4.2 Research Question 2. How does social media usage influences students' social skills?

The findings of the study (Table 4.17) affirmed the growing scholarly consensus that the impact of social media usage on students' social skills is significantly shaped by the purpose and pattern of usage. Specifically, the result reveals that academic-oriented use of social media correlates positively with various dimensions of social skills. Students who primarily engage with social platforms for academic purposes demonstrate significantly stronger skills in initiating conversations ($r = .26, p < .01$), expressing

empathy ($r = .21, p < .01$), and preference for face-to-face communication ($r = .19, p < .05$). This is congruent with prior findings from Valkenburg and Peter (2016), as well as Barry et al. (2017), which suggest that when digital engagement is directed toward sustaining meaningful relationships or collaborative learning, it can enhance emotional intimacy, peer support, and communicative fluency.

Moreover, this aligns with the assertion by Subrahmanyam and Greenfield (2008) that social media can serve as a “digital rehearsal space,” where students refine communicative strategies in relatively low-risk environments. In educational contexts, platforms used for academic discourse enable students to articulate ideas, provide feedback, and practice active listening skills that are transferable to face-to-face interactions (Tariq & Mehboob, 2012). The current results thus reinforce the premise that academically motivated social media use can scaffold the development of emotional intelligence and interpersonal competence which is consistent with the Uses and Gratifications Theory (UGT), which posits that media outcomes are shaped by user intent and interaction type (Sundar & Limperos, 2013), academic-oriented SM use was positively correlated with initiating conversations, empathy, and preference for face-to-face (FF) interaction. This suggests that when students use platforms for collaborative learning and academic discourse, they engage in socially constructive exchanges that enhance interpersonal skills, aligning with prior research linking goal-directed, active engagement to increased social connectedness (Burke & Kraut, 2016; Whiting & Williams, 2013).

In contrast, the study found that social media usage driven by entertainment or stress relief is negatively correlated with all measured dimensions of social skills. These include initiating conversations ($r = -.19, p < .05$), empathy ($r = -.23, p < .01$), and preference for face-to-face interactions ($r = -.27, p < .01$). These findings corroborate

earlier work by Alloway et al. (2014) and Twenge et al. (2019), who identified detrimental effects of passive or image-centric social media use on students' real-world social competencies. Prolonged engagement in passive activities such as scrolling through content or consuming entertainment may limit opportunities for reciprocal communication and reduce practice in nuanced social behaviors, such as reading emotional cues or maintaining eye contact (Frison & Eggermont, 2016; Caplan, 2010). Furthermore, as Pera (2020) noted, the performance pressures associated with curated social media personas can hinder emotional openness and authenticity in offline settings, thereby weakening empathy and social confidence. The distinction between *active* and *passive* usage provides further interpretive clarity. The literature suggests that active engagement (e.g., posting, commenting, or messaging) is linked to stronger social ties and well-being, while passive use fosters envy, loneliness, and lower empathy (Verduyn et al., 2017; Przybylski et al., 2013). Given that entertainment-driven use often aligns with passive consumption, it is unsurprising that such behavior is negatively associated with social skills in the present study. This aligns with concerns raised in UGT literature regarding gratification shortfalls, where intended emotional relief may come at the expense of social skill.

Interestingly, social media use for product promotion or networking demonstrated a modest but statistically significant positive relationship with conversation initiation ($r = .14, p < .05$), though it had no significant association with empathy or face-to-face communication preference. This suggests that while such engagement may cultivate assertiveness or verbal confidence, it may not contribute meaningfully to deeper relational competencies. This finding parallels those of Anderson and Jiang (2018), who argue that digital fluency in promotional or professional contexts may enhance surface-level communication skills but does not necessarily foster emotional

intelligence or interpersonal depth. Similarly, Greenhow and Chapman (2020) caution that while digital communication enhances clarity and timing, it should complement but not replace the development of in-person skills like emotional regulation and nonverbal sensitivity.

Taken together, the findings support the view: not all social media use is inherently detrimental or beneficial. Rather, the psychosocial outcomes of SMU are contingent on why and how students engage with these platforms. Purposeful, academically oriented use appears to cultivate social competencies, whereas passive or entertainment-driven use undermines them. This reinforces calls by Purnama and Asdlori (2023) and Feng et al. (2024) for the integration of social media literacy and emotional education within tertiary institutions.

4.4.3 Research Question 3. How do social media notifications and usage influence students' sleep quality?

The findings of the study (Table 4.19) established statistically significant relationship between social media (SM) use behaviors and sleep duration among university students. The regression model, which accounted for approximately 29% of the variance in sleep hours ($R^2 = 0.29$), highlights the extent to which social media usage particularly patterns related to notifications and compulsive checking, can disrupt students' sleep. These findings are consistent with the existing literature on the negative implications of social media for sleep quality in young adult populations. One of the most predictors in the study was frequent notifications, which significantly and negatively predicted sleep duration ($B = -0.22$, $\beta = -0.24$, $p = .002$). This result aligns closely with prior studies indicating that nighttime alerts act as potent disruptors of both sleep initiation and continuity. As noted in the literature, social media notifications often serve as digital stimuli that not only interrupt transitional sleep stages but also

prompt further engagement, thereby increasing cognitive and emotional arousal before bedtime (Levenson et al., 2017; Alfonsi et al., 2020). This continuous cycle of disruption reflects both the physiological effects of screen exposure, particularly melatonin suppression due to blue light (Chang et al., 2015), and behavioral tendencies toward nighttime digital vigilance, a pattern exacerbated during periods of heightened academic or social stress.

Further compounding this effect is the Compulsion to Check Notifications, which was also a significant negative predictor of sleep hours ($B = -0.19$, $\beta = -0.21$, $p = .003$). This suggests that students who experience a strong urge to respond to notifications may suffer from a form of behavioral hyper-vigilance associated with digital dependence. The literature supports this interpretation, with studies identifying compulsive notification checking as a manifestation of smartphone addiction, often driven by fear of missing out (FoMO) and reinforced by algorithmic reward systems (Przybylski et al., 2013; Li et al., 2022). These patterns mirror findings from El Haddaouy et al. (2025), where compulsive nighttime use and notification responsiveness were linked to significantly lower sleep quality among university students. Thus, the current study empirically substantiates these associations, indicating that compulsivity in digital behavior directly compromises sleep duration. A similarly significant predictor was Intermittent Feed Checking at Night ($B = -0.17$, $\beta = -0.18$, $p = .001$), reinforcing literature that identifies bedtime procrastination and digital distraction as key pathways through which social media undermines sleep. Exelmans and Van den Bulck (2016) identified this form of pre-sleep engagement as “revenge bedtime procrastination,” a deliberate delay in sleep onset intended to reclaim leisure time. Such behavior is particularly prevalent among students attempting to unwind after demanding academic days. However, the seemingly innocuous habit of scrolling through feeds activates

cognitive and emotional processing, delaying sleep initiation and shortening overall sleep duration (Carter et al., 2016; Lemola et al., 2015). The findings in this study echo those of Sedaghat (2023), who reported significant reductions in sleep efficiency among students engaging in prolonged late-night screen use.

Interestingly, one variable exhibited a protective effect: the reverse-coded item, “SM Use Helps Fall Back Asleep,” was positively associated with longer sleep duration ($B = 0.15$, $\beta = 0.16$, $p = .013$). This suggests that students who do not rely on social media to return to sleep tend to have healthier sleep patterns. Conversely, those who use social media as a sleep aid may inadvertently exacerbate sleep fragmentation due to the stimulating nature of digital content and exposure to blue light. These results are consistent with the view that social media is a maladaptive coping strategy when used to induce sleep, reinforcing the importance of sleep hygiene education and digital literacy interventions (Radtke et al., 2022; Kim et al., 2021).

The findings also theoretically aligned with principles from Sleep and Circadian Rhythms Theory, of which the negative impact of frequent notifications, compulsive checking, and nighttime feed engagement reflects both biological and behavioral disruption of the circadian sleep-wake cycle. Frequent notifications likely fragment sleep continuity through intermittent arousals, undermining homeostatic sleep pressure (Process S) and entraining cognitive alertness inconsistent with circadian sleep timing (Process C) (Borbély, 1982; Czeisler & Gooley, 2007). Similarly, compulsive checking and intermittent feed scrolling exacerbate cognitive arousal, delaying melatonin secretion and prolonging sleep onset—factors associated with social jetlag and reduced sleep efficiency (Chang et al., 2015; Levenson et al., 2017). The finding that students who *do not* use SM as a sleep aid sleep longer supports the notion that media dependency at night is maladaptive. Though some may seek cognitive distraction to

ease return to sleep, reliance on emotionally stimulating or light-emitting content perpetuates circadian misalignment. This reflects a paradox within Uses and Gratifications Theory (UGT): gratification sought (relaxation) results in gratification lost (sleep) when the medium itself is physiologically disruptive. In conclusion, the results substantiate these theoretical frameworks by quantifying the extent to which problematic social media behaviors predict reduced sleep duration among university students. These findings not only validate prior research but also highlight critical areas for intervention, supporting calls for management of universities to adopt holistic digital wellness programmes that mitigate the cognitive and emotional burdens associated with late-night SM use.



CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Overview

This chapter includes the summary, conclusion, and recommendations of the study.

5.2 Summary

This study comprehensively investigated the influence of social media usage on academic performance, social skills, and sleep quality, among students across all levels at the University of Education, Winneba. The study specifically examined how social media usage, social skills, sleep quality relate to academic performance of the students, examined influence of Social Media Use on Social Skills of the students, and finally assessed influence of Social Media Notifications and Use on Sleep Quality of the students. The study employed a concurrent mixed-methods which is a research design that combines both quantitative and qualitative approaches to achieve a comprehensive investigation of the research problem. The quantitative component enabled the systematic collection and analysis of data from a broad sample, offering measurable insights into students' frequency of social media use, perceived social competencies, and sleep quality. In addition, the qualitative dimension provided context-rich narratives that explored how students perceive the influence of social media on their academic success, interpersonal development, and sleep patterns. This triangulated approach strengthened the reliability and validity of the findings.

The research was anchored in two theoretical frameworks: Uses and Gratifications Theory (UGT), which posits that individuals actively choose media platforms to fulfil specific cognitive, emotional, and social needs. Also, sleep and circadian rhythms theory, which explains that the sleep-wake cycle is regulated by an internal biological clock aligned with the 24-hour day-night cycle. This circadian rhythm is influenced by

environmental cues such as light exposure, which in turn affects physiological readiness for sleep or wakefulness. Guided by these frameworks, the study addressed the following research questions: 1. What is the relationship between Social Media Use, Social Skills, and Sleep Quality in relation to students' academic performance? 2. How does social media usage influence students' social skills? and 3. How do social media notifications and usage influence students' sleep quality? The target population comprised of all students enrolled at the University of Education, Winneba. A total of 282 students participated in the study. Data was collected using a structured questionnaire adapted from validated instruments developed by Vladimir (2018) and Zahid et al. (2018). The instrument captured demographic data, frequency and purpose of social media usage, self-assessed social competencies, GPA, and sleep quality of the students. Quantitative data was analysed using descriptive statistics, Pearson's correlation, and multiple regression analysis while thematic analysis was used to examine qualitative responses on lived experiences of the respondents.

5.2.1 Key Findings

1. The multiple regression analysis revealed that social media usage, social skills, and sleep quality are significant predictors of students' academic performance. Social media usage was negatively associated with GPA ($B = -0.221$, $\beta = -0.243$, $p < .001$), indicating that increased use, particularly of a non-academic or excessive nature, tends to reduce academic achievement. Qualitative data affirmed that purposeful use for academic collaboration enhanced motivation and understanding, while recreational use was linked to distraction and procrastination.
2. In contrast, social skills were positively related to GPA ($B = 0.331$, $\beta = 0.289$, $p < .001$), suggesting that students with stronger interpersonal competencies

perform better academically. Similarly, sleep quality also emerged as a significant positive predictor ($B = 0.204$, $\beta = 0.184$, $p = .002$), highlighting the importance of restorative sleep for cognitive and academic functioning.

3. In addition, Pearson correlation analysis revealed that the purpose of social media use significantly conditions its effect on social skill development. Academic-oriented social media use was positively associated with initiating conversations ($r = .26$), empathy ($r = .21$), and preference for face-to-face communication ($r = .19$), were all statistically significant.
4. Conversely, entertainment or stress-relief usage of social media showed negative correlations across the same dimensions: initiating conversations ($r = -0.19$), empathy ($r = -0.23$), and face-to-face preference ($r = -0.27$). These findings suggest that purposeful, academic engagement on social platforms may enhance interpersonal competencies, whereas passive or escapist usage may hinder social development. Social media use for networking and product promotion showed a weaker but significant correlation with conversational initiation ($r = .14$), indicating a potential but limited communicative benefit.
5. Finally, the multiple regression analysis that social media behaviours and their influence on sleep duration was statistically significant ($F(4, 277) = 26.91$, $p < .001$), accounting for 29% of the variance in sleep hours ($R^2 = 0.29$). Three predictors: frequency of notifications ($B = -0.22$, $p = .002$), compulsive checking ($B = -0.19$, $p = .003$), and intermittent night-time feed checking ($B = -0.17$, $p = .001$), were all negatively associated with sleep duration, indicating that digital overexposure impairs sleep quality. The qualitative responses emphasized overexposure to blue light and emotional stimulation as sleep barriers.

6. Interestingly, the reverse-coded item “social media helps fall back asleep” was positively associated with sleep duration ($B = 0.15$, $p = .013$), suggesting that students not dependent on social media as a sleep aid enjoy better sleep. These findings underscore the disruptive role of nocturnal social media usage and support interventions promoting restraint of social media usage during night-time hours.

5.3 Conclusions

In view of the findings of this study the following key conclusions were made reflecting the extent to which each stated objective of the study was achieved.

1. To establish relationship between Social Media Use, Social Skills, and Sleep Quality in relation to students’ Academic Performance.

Firstly, social media usage emerged as a statistically significant negative predictor of students’ academic performance. The inverse association confirms longstanding concerns that excessive or poorly regulated social media usage can displace study time, disrupt concentration, and diminish learning efficacy. In contrast, both social skills and sleep quality significantly and positively predicted GPA. This highlights the importance of non-cognitive factors in academic achievement, emphasizing that students who are socially competent and well-rested are better equipped to navigate the demands of higher education.

2. To examine how social media usage influences students’ social skills.

Secondly, the findings of the study concluded that the purpose for which students engage with social media usage plays a pivotal role in shaping their social skills development. Academic-oriented use was positively associated with higher levels of empathy, conversational confidence, and preference for face-to-face interaction, indicating that when used intentionally, social media can enhance social skills of

students. Conversely, entertainment-driven and escapist usage patterns were negatively associated with these same social skills, suggesting that passive or compulsive consumption may erode social capacities essential for real-world relational engagement.

3. To assess the extent to which social media notifications and interactions influence students' sleep quality.

Finally, the findings of the study concluded that specific social media behaviours, particularly frequent notifications, compulsive checking, and late-night feed browsing, significantly disrupted students' sleep quality. These findings affirm the growing body of chronobiological research indicating that digital intrusions interfere with circadian regulation and sleep continuity. Importantly, reliance on social media as a tool to fall back asleep was shown to be counterproductive, further highlighting the maladaptive role of nocturnal social media usage.

In sum, these findings concluded that social media usage impact on students is not inherently negative or positive; rather, its effects are conditioned by patterns of use, behavioural regulation, and the extent to which social media habits interact with social skills and sleep quality domains. Efforts to improve academic outcomes and student well-being of students must therefore adopt a holistic approach one that promotes mindful, purpose-driven social media usage, fosters social skills development, and encourages healthy sleep hygiene.

5.4 Recommendations

In reference to the findings and conclusions of the study, the following recommendations were made to enhance social media use, social skills, sleep quality, and academic performance of students in the university and other higher education environments.

1. Given the significant negative impact of excessive social media use on GPA, university management should establish comprehensive digital literacy initiatives. These programs should educate students on the cognitive, academic, and psychosocial risks associated with unregulated screen time. Emphasis should be placed on self-monitoring strategies, effective time management, and the use of digital tools such as social media blockers to reduce distractions and prevent time displacement.
2. The strong positive association between social skills and academic performance underscores the need for academic administrators of the university to incorporate Social-Emotional Learning (SEL) frameworks into the curriculum. Faculty should be encouraged to adopt mentorship programs that nurture empathy, communication, and interpersonal competence.
3. As academic use of social media positively correlates with social skills, the university academic advisors should guide students toward leveraging these platforms for educational collaboration, professional networking, and constructive dialogue. University management can support this by curating academic content on institutional channels and facilitating student-led peer-learning forums.
4. Given the predictive value of sleep quality on academic performance, the management of the university should launch awareness campaigns and workshops focused on circadian health. Mobile push notifications reminding students of digital curfews, along with practical tips for improving sleep routines, can help minimize the adverse effects of night-time social media use.

5. Students should disable non-essential app notifications, particularly during evening and night-time hours. This strategy can reduce compulsive checking behaviour and improve sleep continuity.
6. Students exhibiting compulsive social media habits or relying on digital platforms to fall back asleep should have access to health professionals of the university for psychological and behavioural support services. Evidence-based interventions such as Cognitive Behavioural Therapy for Insomnia (CBT-I) should be offered to address these maladaptive patterns.
7. University policy frameworks should incorporate digital wellness guidelines that balance technology use in learning environments with safeguards for students' academic focus, emotional development, and sleep health. This may involve revising assignment deadlines, optimizing lecture formats, and offering flexible learning options that accommodate digital well-being.

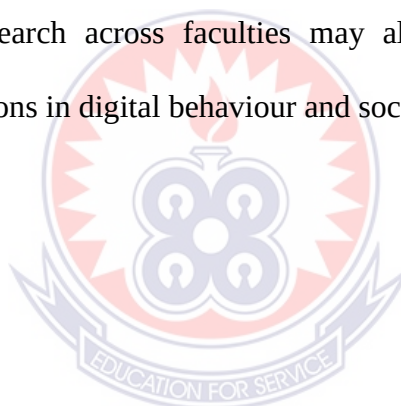
5.4.1 Suggestions for Further Research

Based on the scope, findings, and limitations of this study, the following areas were identified for further research:

1. Future studies can adopt longitudinal approach to assess how patterns of social media use, sleep behaviour, and social skill development evolve over time and influence GPA trajectories.
2. Further research should distinguish between active versus passive social media use and their differential effects on cognitive, social, and emotional outcomes among university students
3. Subsequent research could examine the differential effects of various social media platforms (e.g., TikTok vs. LinkedIn) on sleep quality, academic

productivity, and social skills, recognizing that platforms vary significantly in content, design, and user interaction styles.

4. Expanding the study to include diverse institutions and cultural backgrounds would allow for cross-cultural comparisons and greater generalizability.
5. Examine the academic and mental health outcomes of students who intentionally reduce or eliminate their use of social media platforms for a specific duration. This can shed light on the benefits of digital restraint.
6. Future research should assess how students' online and offline peer networks contribute to the development of social capital and how this, in turn, supports academic persistence and achievement.
7. Comparative research across faculties may also uncover discipline-specific needs and variations in digital behaviour and social engagement.



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APPENDICES

APPENDIX A: QUESTIONNAIRE

SOCIAL MEDIA'S IMPACT ON ACADEMIC PERFORMANCE, SOCIAL SKILLS AND SLEEP QUALITY

Dear respondent,

This questionnaire is part of a Master's thesis. The researcher requests your kind cooperation to fill out this questionnaire. It will be used for research findings and analysis which will be presented for academic purposes only. It will be ensured that all information provided are kept confidential.

There are no right or wrong answers to the following questions. Kindly spare some few minutes from your busy schedule to complete the questionnaire as your participation is of value to this study. The researcher is grateful for your kind corporation in participating.

Part 1: Demographics; kindly underline the right answers in the questions below

1. Age

- 15-25 years
- 25-35years
- 35-45years
- 45+

2. Gender

- Male
- Female

3. Kindly indicate your academic programme?

- Undergraduate
- Graduate
- PHD

4. Kindly write in the space provided below the programme you are studying.
Example; BSc ICT Education or MPhil Special Education or PHD
Mathematics Education.

5. Academic level

- 100
- 200
- 300
- 400
- 800
- 801
- 900
- 901

6. Please select your current overall GPA
 - 1.00 to 2.4 (pass)
 - 2.0 to 2.49 (third class)
 - 2.5 to 2.9 (lower)
 - 3.0 to 3.49 (upper)
 - 3.5 to 4.0 (First class)
7. Select any of the following as a student
 - Campus resident
 - Campus Non-resident
 - Off Campus (Not resident on campus or its environs)
8. What are your go-to device/s to access your social media feed?
 - Mobile Phone
 - Tablet
 - Laptop
 - Desktop
9. Select the number of social of social media platforms you have an account with.
 - Facebook
 - Whatsapp
 - Twitter, now X
 - Snapchat
 - Tiktok
 - Instagram
 - YouTube
 - Telegram
 - Likee
 - Pinterest
 - LinkedIn
 - Threads
 - Other (Please Specify)
10. Indicate how frequently you check into your social media accounts in a given week.
 - Every two days
 - Once a week
 - Every hour in a day
11. Select the number of hours you spend on social media in a day.
 - Less than 2hours
 - 3hours
 - 4-5 hours
 - 6-7 hours
 - More than 7 hours

12. Kindly underline all your purpose/s of using social media

- To make friends/ socialize
- For entertainment or relaxation purposes
- To find a suitable date
- To promote products/services
- To find employment
- For academic purposes
- Others

13. Select the period/s you normally access social media websites

- Simultaneously with whatever I am doing
- During my free time
- While at school/work
- During social occasions
- During meal times
- Any spare time
- Others

PART TWO: Kindly indicate (✓) how you associate with each of the following

	STATEMENT	1 Strongly disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree (A)	5 Strongly agree (SA)
14	Social media usage distracts me from my academic responsibilities.					
15	I use social media during class hours.					
16	I often check social media notifications during studies or academic tasks.					
17	Social media usage has a negative impact on me when I have to concentrate on my studies.					
18	I often find it challenging to complete academic tasks due to excessive social media use.					
19	I believe that social media use affects my academic performance					

20. Briefly explain how social media has improved your academic work.

.....

.....

.....

.....

21. Briefly explain how social media usage limits your academic performance

.....

.....

.....

.....

PART THREE: Kindly indicate (✓) how you associate with each of the following

	STATEMENT	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree (A)	5 Strongly Agree (SA)
22	Social media helps me to develop and maintain relationships with others.					
23	I have experienced cyberbullying or negative interactions online which has limited my relationship with my friends					
24	Social media has hindered my social skills in face-to-face interactions.					
25	I feel confident in face-to-face conversations and social interactions.					
26	I feel comfortable initiating and maintaining conversations on social media platforms.					
27	I empathize with others' emotions in face-to-face interactions.					
28	Social media use has influenced my ability to establish and maintain meaningful relationships.					
29	I prefer face-to-face interactions over social media interactions for building social connections.					

30. Briefly explain how social media has improved your social skills (for example; making real new friends and interactions with friends and family)

.....

31. Briefly explain how social media usage has limited your social skills in face-to-face conversation

.....

PART FOUR: Kindly indicate (✓) how you associate with each of the following

	STATEMENT	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree (A)	5 Strongly Agree (SA)
32	I usually spend some time on bed checking my SM feeds before going to bed.					
33	I find myself spending more time on social media than originally intended before sleeping.					
34	I frequently receive social media notifications during sleeping hours.					
35	I feel compelled to check and respond to social media notifications immediately, even during sleep hours.					
36	When I wake up from sleep at night, I check social media feed or respond to notifications for some time before going back to bed.					
37	Social media notifications have ever interrupted my sleep and caused difficulty falling back asleep.					
38	I experience difficulty falling asleep after using social media.					
39	I feel refreshed and well-rested after a night's sleep on weeknights.					

40. Kindly provide a concise explanation on how social media usage has improved your sleep quality if any.

.....

41. Briefly explain how social media usage disturbs your sleep.

.....

42. Indicate the hours of sleep you normally have at night.

- More than 8hours
- 6hours
- 4hours
- Less than 4hours

Thank you for your time.

APPENDIX B: CONSENT FORM FOR STUDENT



UNIVERSITY OF EDUCATION, WINNEBA

Faculty of Science Education

Department of Information and Communication Technology.



RESEARCH DESCRIPTION AND RIGHTS OF SUBJECTS CONSENT FORM FOR STUDENTS

For questions about the study, contact: Bernice A. Abban, the researcher at

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Osafo Apeanti, Wilson (PHD), the researcher's advisor at woapeanti@uew.edu.gh,
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Description: You are invited to participate in a research study that aims at investigating the effects of social media usage on students' academic performance, social skills and sleep quality.

The research design is a mixed quantitative and qualitative method that requires a use of questionnaire in collecting data. Therefore, if you decide to participate in this research, you will be required to complete a questionnaire.

Risk and benefits: The study involves no potential risks. The benefits are that you will have opportunity to express your views about the effects social media has on your academic performance, social skills and sleep quality.

Data storage to protect confidentiality: All the information to be gathered related to you will be treated in strict confidence. The information you provide will be kept completely confidential and will not influence your course grade. No information that could be used to identify you, is required in the report of this study.

How will results be used? The data collected from this study will be used to construct M.Phil thesis and journal articles.

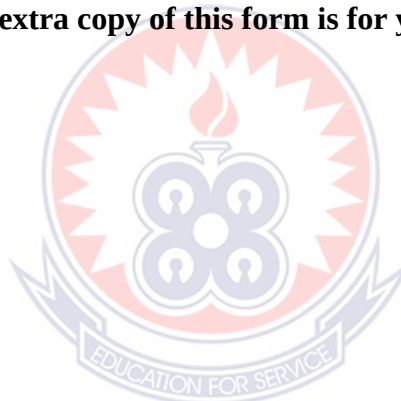
Subject's rights: If you read this form and have decided to participate in this study, please understand that your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer some particular questions in the questionnaire. Your privacy will be maintained in all published and written data resulting from the study.

Signature statement: All of my questions have been answered to my satisfaction by the researcher. I consent to participate in the study described.

Signature:.....

Date:.....

The extra copy of this form is for you to keep



APPENDIX C: INTRODUCTORY LETTER FOR DATA COLLECTION

	
UNIVERSITY OF EDUCATION, WINNEBA	
FACULTY OF SCIENCE EDUCATION	
DEPARTMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY EDUCATION	
P. O. Box 25, Winneba, Ghana	icteducation@uew.edu.gh
+233 (020) 2041081	

13th December, 2023

TO WHOM IT MAY CONCERN

.....

.....

.....

.....

Dear Sir/Madam,

INTRODUCTORY LETTER

The bearer of this letter, **Ms. Bernice Abanfowaa Abban** with Index number **220032738** is an M. Phil, ICT student from the Department of I.C.T. Education, University of Education, Winneba. She is conducting research on *“Social Media Usage Impact on Students’ Academic Performance, Social Skills, and Sleep Duration among Students of University of Education, Winneba”* for her studies. We would be grateful if you could assist her collect data for her research.

Counting on your usual co-operation.

Thank you.


HEAD OF DEPT
DEPT. OF ICT EDUCATION
UNIVERSITY OF EDUCATION, WINNEBA
Delali Kwasi Dake (PhD)
Ag. Head of Department
Tel: +233540504108

 www.uew.edu.gh

APPENDIX D: RELIABILITY STATISTICS

Case Processing Summary

		N	%
Cases	Valid	271	86.0
	Excluded ^a	44	14.0
	Total	315	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.716	39

