THE INFLUENCE OF FEAR OF MISSING OUT (FoMO) ON ACADEMIC BURNOUT: MEDIATING ROLE OF SOCIAL MEDIA AND MODERATING ROLE OF AGE AND GENDER

Muhammed Barry

Student No. 201031404

M.Sc. T.E. (Specialization in Computer Science and Engineering)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)

THE ORGANISATION OF THE ISLAMIC COOPERATION (OIC)

BOARD BAZAR, GAZIPUR, DHAKA BANGLADESH

MAY 2023

THE INFLUENCE OF FEAR OF MISSING OUT (FoMO) ON ACADEMIC BURNOUT: MEDIATING ROLE OF SOCIAL MEDIA AND MODERATING ROLE OF AGE AND GENDER

By

Muhammed Barry

Student No. 201031404

M.Sc. T.E. (Specialization in Computer Science and Engineering)

Submitted in partial fulfillment of the requirements for the Degree of Master of Science in Technical Education with specialization Computer Science and Engineering

at the Department of Technical and Vocational Education (TVE)

Islamic University of Technology (IUT)

Dhaka, Bangladesh

May 2023

RECOMMENDATION OF THE BOARD OF EXAMINERS

The Thesis title is "**THE INFLUENCE OF FEAR OF MISSING OUT (FOMO) ON ACADEMIC BURNOUT: MEDIATING ROLE OF SOCIAL MEDIA AND MODERATING ROLE OF AGE AND GENDER**" Submitted by **Muhammed Barry**, Master of Science in Technical Education with specialization in **CSE, Student ID: 201031404** of the AY 2021- 2022 has been found satisfactory and accepted as partial fulfillment of the requirement of the degree of **Master of Science in Technical Education (M.Sc.TE)** in May 2023.

MEMBERS OF THE EXAMINATION BOARD

....

Prof. Dr. Md. Abdullah Al Mamun   Supervisor (Chairman)

....

N/A   Co-Supervisor

....

Prof. Dr. Md. Shahadat Hossain Khan   (Ex-Officio)

Head TVE Dep, IUT, TVE

....

Prof. Dr. Md. Faruque Ahmed Haolader   Member

....

Prof. Dr. Mohsin Uddin   External Member

Dedication

Dedicated

to My

Beloved Parents

Acknowledgement

The journey has been lengthy. I express my sincere appreciation and gratitude to Allah, the most benevolent and merciful, for granting me the strength and capability to successfully accomplish this thesis. Without His divine assistance, this achievement would not have been possible.

It is my proud privilege and duty to formally acknowledge and extend my sincere gratitude to my esteemed supervisor, Professor Dr. Md Abdullah Al Mamun, for his invaluable support, expert guidance, and insightful contributions that have greatly facilitated the completion of this thesis. He motivated me to pursue an intriguing and valuable subject matter, which I have found great pleasure in working on. Given the assistance of the Almighty, I would like to acknowledge that the successful completion of this study would not have been possible without the invaluable motivation and support that I received from him. I am immensely grateful to Professor Dr. Md Abdullah Al Mamun for providing me with exceptional facilities and an environment conducive to creative work.

I express my gratitude to my friends and colleagues for their invaluable assistance and fruitful discussions, which have been crucial to my professional development. I express my utmost gratitude to my esteemed parents for their unwavering support, motivation, and consistent emphasis on the importance of academic pursuits.

Declaration of the Author

I, Muhammed Barry, hereby attest that the work presented in this document is my original creation, completed under the guidance of Professor Dr. Md Abdullah Al Mamun. This work has not been previously published or submitted for the fulfillment of any degree program. The information contained within this document has been acquired and presented in accordance with the academic regulations and ethical standards of the hosting institution. I hereby attest that, in accordance with the regulations and standards in place, I have provided complete citations and references for all non-original content and findings included in this work.

……………………………….

Muhammed Barry

Student No. 201031404

M.Sc. T.E.

Abstract

Over the last few decades, social media has emerged as a potent global communication tool that serves a pivotal function in facilitating instantaneous connections among individuals across diverse geographical locations. The adverse impacts of social media have resulted in a deterioration of offline interpersonal relationships' quality. Studies have demonstrated the significant ramifications of the fear of missing out (FoMO) and its correlation with adverse social media usage, including but not limited to anxiety, depression, compulsive social media engagement, low life satisfaction, negative emotions, declined physical, mental, and psychological well-being, reduced relationship quality, poorer work performance, procrastination, loneliness, academic failure, and a lack of personal interconnection and competency. Many of these tendencies become more pronounced over time. The present study aims to examine the potential influence of Fear of Missing Out (FOMO) on academic burnout, with social media serving as a mediator. The proposed model is based on several established theories, including the self-determination theory (SDT), the belongness theory, the theory of compensatory Internet usage (TCIU), and the distraction-conflict theory. The model was tested using cross-sectional data sets consisting of university students. Structural equation modeling (SEM) was employed to conduct an empirical examination of the existing research hypotheses and to assess the research model's validity and reliability. Based on the results, it was determined that with the exception of one hypothesis, all others were validated. Our findings indicate a negligible correlation between Fear of Missing Out (FOMO) and academic burnout. The analysis has confirmed the hypothesis that social media serves as a complete mediator in the correlation between FOMO and academic burnout. We assess the suggested associations to enhance our comprehension of the impact of FOMO and certain precursors of academic burnout that are linked to social media. Therefore, we conducted an investigation into the empirical (both direct and indirect) connections between FOMO and social media intensity, compulsive social media usage, and social media fatigue. We anticipated that these factors would ultimately result in academic burnout experienced by students. Eight hypotheses were tested to determine their direct effects. Out of these, seven received complete support, whereas only one did not.

Table of Content

List of Tables

List of Figures

Chapter 1 Introduction

1.1 Background of the study

As social beings, humans possess a profound inclination to affiliate with groups owing to their inherent sociability. Roberts and David (2020) have argued, based on the perspective of Baumeister and Leary (1995), that the need to belong is an inherent human motivation that influences a significant portion of our social behavior. This includes the establishment and sustenance of meaningful and positive interpersonal relationships, which are deemed essential for our well-being. Social factors can influence the costs and benefits of information seeking, and this, in turn, can lead to a desire to participate in social activities and events to maintain or strengthen one's social connections, as suggested by the self-determination theory (Deci & Ryan, 2000). To keep up with what their friends are up to and what's happening in their lives, people on social media may feel compelled to check their feeds frequently. This can consequently result in experiencing fear of missing out (FOMO) on social opportunities or important information (Przybylski et al., 2013). FOMO is the continuous apprehension those utilizing social media experience, that they may be missing out on more rewarding experiences when they are not online (Przybylski et al., 2013). Like in face-to-face contexts, by sharing personal information social media users foster social interactions and develop interpersonal relationships, and the result is a pleasant sense of affiliation, belonging, and social support. Social media addresses this important need as an omnipresent conduit for establishing such connections. Because of its robust nature, social media use may increase out of fear of being left behind. "People seek frequent, affectively positive interactions within the context of long-term, caring relationships" (Baumeister & Leary, 1995). In addition, it is noteworthy that relationships often develop organically, and individuals dedicate significant time and energy towards cultivating positive and supportive connections with others (Baumeister & Leary, 1995) in fear of missing out, and as the phenomenon increases, the more attractive social media is to users (James et al., 2017). Research suggests that individuals require a limited number of intimate connections, as forming additional bonds beyond that number tends to have diminishing returns. (Baumeister & Leary, 1995).

Loss aversion, the idea that "the pain of losing is psychologically twice as powerful as the pleasure of gaining," (*Loss Aversion - the Decision Lab*, n.d.) explains why some people experience a great deal of FOMO. Individuals may be reluctant to take calculated risks that could pay off handsomely due to the fear of losing out (Fear of missing out). It's a cognitive bias that makes people feel the pain of losing twice as intensely as the corresponding pleasure of gain. Above and beyond other considerations, (FOMO) was proven to have a robust and significant impact on social media

usage (Przybylski et al., 2013). Beyond personality and connection, scholars have found that FOMO is a strong predictor of social media use and addiction (Alt, 2015, 2018; Baker et al., 2016; Blackwell et al., 2017; Przybylski et al., 2013; Roberts & David, 2020; Schneider, n.d.; Wolniewicz et al., 2018). FOMO is linked to increased levels of social media behavior engagement, which may be counterproductive to learning results. Individuals who experience FOMO may exhibit a persistent and strong desire to seek out and acknowledge the activities of others (Pollard, 2012; Przybylski et al., 2013). Thus, demonstrating FOMO's importance in social media studies.

The emergence of the internet and inexpensive internet-connected devices has broadened our access to information and expanded the horizons we experience and understand the world. This ever-increasing variety of electronic devices has many positive qualities that make them appealing and stimulate their use, especially in young adults. During this internet generation, social media has given today's youth a window onto the entire globe having access to entirely open and continual information, enabling them to see, hear, talk to, and interact with anyone, anywhere in real time. The world is now palm-sized. Social media has enabled access to a diverse array of activities and personal information pertaining to others, which was previously inaccessible (Roberts & David, 2020). Today's typical 13-year-old is exposed to more media in 24 hours probably more than our grandparents ever did in their entire life. Modernity is engineered to remind us of desires and appetites we had in the past, provokes them and even creates desires we unaware harbored. Social media shows us things that we cannot but want to attain in a way that does not represent its reality. While technologically we have advanced, it could be anticipated that, with this advancement you'd think we'd be happier now, but instead, our young people are being engulfed by despair and depression. Research suggests that people in industrialized countries have fewer friends and fewer high-quality friendships than they did a generation ago (Roberts & David, 2020). The tsunami of social media is battering our young adults. With the ever-growing availability of information, our youths would have no traditional meaning or hope to cling to social comparison processes can amplify the effects of FOMO by making people feel inadequate compared to others (Abel et al., 2016).

The internet has given today's youth a window onto the entire world, allowing them to instantly communicate with anyone, wherever in the world. The entire globe now fits comfortably in the hand. The advent of social media has made available hitherto restricted amounts of information about the lives of others. Today's typical adolescent, age 13, is exposed to more media in one day than our grandparents ever did. The creation of modernity was intended to arouse and perhaps generate needs we were previously unaware we harboured. The things we see on social media give us unrealistic expectations of success. Even though we've come a long way in terms of technology, you'd think we'd be happier now, but instead, our young people are being engulfed by

despair and depression. According to studies, people in industrialised countries have fewer friends and fewer high-quality friendships than they did a generation ago. Our youth are taking a beating from the tidal wave of social media. This new generation would be unable to rely on established norms or values in a world where information is readily available. Feelings of inadequacy in the face of other people's successes can intensify the effects of FOMO (Abel et al., 2016). Additionally, the use of social media and the constant need to stay connected and engaged can also lead to compulsive social media use, which is characterized as a brief but frequent bout of interaction with social media sites throughout the day, typically in reaction to alerts or other forms of stimulus provided by various social media platforms. This kind of conduct can make people feel like they need constant validation from others and cause them to compare themselves to others, further contributing to users engaging in intensive social media use. Social media weariness can set in if people constantly check their feeds and indulge in various forms of social snacking, which can lead to cognitive overload and information overload (Baumeister & Leary, 1995) in other words social media fatigue.

The Internet and mobile phones are so intertwined in everyday life that they cannot be considered separately because they constitute a single technology (Oberst et al., 2017). Modern innovations have made it possible to browse social networking sites from any device with internet connectivity. Therefore, instead of thinking of the internet, social media, and mobile devices as distinct things we should start treating them as an integrated one (Qutishat & Sharour, 2019). While it's true that technological developments and innovations can be significant contributing factors, studies show that easy access to the internet and mobile apps —rather than technology— are the primary causes of addictive and maladaptive behaviors (Oberst et al., 2017; Renau et al., 2015).

Noteworthy is that social media use can also open up doors for social connection, support, and validation (Manago et al., 2015). Social media can help people connect with people who share their interests, engage in social activism, and express their identities in new and meaningful ways. If social media is properly harnessed, it could have potential educational benefits and inspire positive social change. While social media has many potential uses in the classroom, including collaboration and communication among peers, resource for teaching and learning (Manca & Ranieri, 2016), encouraging social media multitasking is not one of them (Asad et al., 2012). Social media use is not necessarily problematic; rather, the manner in which people use it, such as intensive and compulsive use, and the amount to which it contributes to negative instances such as social media fatigue, are. However, social media can provide a window into a world of people, places, and things that one might otherwise be oblivious to. Anxiety, tension, and a feeling of being left behind can all rise as a consequence of being constantly exposed to social comparisons and unattainable

expectations. As a result of the rapid flow of social information provided by social media, users may feel compelled to stay current on all of it. As a result, individuals may feel pressured to join in on events or activities they may not have otherwise considered (Tandoc et al., 2015). As Chou and Edge (2012) point out, the idealized portrayal of other people's lives that emerges on social media might amplify users' feelings of inadequacy and missing out.

It's hard to overstate the profound changes brought about by the evolution of the mobile phone as a platform. With the dramatic rise in Internet and smartphone use over the past two decades, however, comes the inevitable rise in unintended consequences. In addition to spending more time on social media, people who suffer from a high level of FOMO are more likely to experience mental health problems like depression, anxiety, negative emotions, insomnia, low life satisfaction, personal interconnection, and competency; a decline in their physical, mental, and psychological health; difficulties in managing their mobile phone use; and poor sleep quality and quantity (Scott & Woods, 2018), emotional exhaustion, interpersonal conflict, reduced relationship quality and deterioration of working performance (Carbonell et al., 2018; James et al., 2017; Oberst et al., 2017), procrastination and academic failure due to stress and lack of sleep (Keles et al., 2020). Most of these tendencies are exacerbated with time. FOMO is so powerful that people have trouble disconnecting from each other, both in person and online (Adams et al., 2017). It's reasonable to assume that academic burnout is on the rise as a result of the growing number of students reporting mental health issues as a direct effect of their social media use. A state of mental, emotional, and physiological tiredness caused by the pressures of academic demands. Higher education students, in particular, are susceptible to burnout, which has detrimental effects on their overall health, wellbeing, and ability to succeed academically and professionally. There are reports of academic burnout prevalence rates higher than 75%. Another study about one in five study participants was "burned out" (Nteveros et al., 2020). Students at a higher risk of burnout are less invested in their education and more prone to act inappropriately, according to research (Nteveros et al., 2020). Over time, all of the burnout's side effects typically worsen (Walburg, 2014) and this phenomenon is not geographically or culturally restricted; rather, it's present even among students whose schools have quite diverse structures and pedagogical tenets from one another. This study presents social media usage as a negative behavioral outcome since it gets in the way of other important pursuits like education, rest, and health.

1.2 Problem statement

This inappropriate, uncontrolled or excessive use of these devices can give rise to social, behavioural and affective problems. Numerous studies have shown that people who experience a lot of fear of

missing out on social media are more likely to spend excessive amounts of time on these platforms; to suffer from depression, anxiety, negative emotions, insomnia, compulsive social media use, an eating disorder, low life satisfaction, personal interconnection, and competency; to experience emotional tensions, stress, deterioration of physical, mental, and psychological well-being; to have difficulty regulating mobile phone usage and emotional control; to get insufficient amounts of sleep; and to Most of these tendencies are exacerbated with time. We posit that these can be antecedents of academic burnout. Which we will try to empirically prove in this study.

1.3 Research Objectives

The overarching aim of this study is to show how much of an influence FOMO and social media have especially when it is not harnessed for pedagogical purposes in explaining Academic burnout. Hence, the present study aims to investigate the association of FOMO and the social media measures, namely compulsive use, intensity, and fatigue, with academic burnout. We, therefore, posit that these can be antecedents of academic burnout. To understand these proposed relationships, we build upon FOMO and draw on social media to explore potential causes and consequences of academic burnout. Thus, the current study could point to specific elements of FOMO and social media engagements, which may be connected to academic burnout. To address the general objective of this study, this study attempted to-

- Investigate the extent at which social media induced FOMO affect academic burnout.
- Examine the mediating role of social media use between FOMO and academic burnout.

1.4 Research Questions

The study attempted to answer the following research questions to achieve the objectives of this study-

RQ 1: Does FOMO in the context of social media elicit academic burnout?

RQ 2: Does social media use mediate the relationship between FOMO and academic burnout?

RQ 3: How do age and gender moderate the relationship between FOMO and academic burnout?

Significance of the Study

While FOMO is not an entirely new phenomenon, its intensity and discussion have grown exponentially along with the popularity of social media (Abel et al., 2016). As the number of people using social media has skyrocketed over the past decade (as of April 2023, Facebook reported 2.963 billion monthly active users; four other platforms claimed 2 billion monthly active users; and about a dozen platforms claimed around a billion or more monthly users each), it is not surprising that

parents and researchers have begun to wonder if the risks posed by social media outweigh the benefits, perpetuating numerous scientific inquiries. As a result of technological advancements, information is more accessible than ever before, and users are no longer restricted to their deskbound PCs. Many students utilize their personal gadgets for both schoolwork and leisure online. Do these activities cause academic burnout, characterized by exhaustion, cynicism, and feelings of ineptitude when compared to others? Despite the fact that previous studies have revealed associations between FOMO and the three social media constructs examined here, FOMO and the social media constructs with job burnout but not academic burnout (Budnick et al., 2020; R. Han et al., 2020). To the best of our knowledge, this is the first study to look into all of the aforementioned frameworks simultaneously.

1.5 Conclusion

People often feel their lives are too busy to include beneficial activities like exercise, reading, and other healthy activities, though excessive data is reaching them from social media to be consumed and understood, people still try to absorb as much as possible. Fatigue and academic burnout may kick in, resulting in a self-imposed activity which may render counterproductive. Stakeholders may need to exercise caution while yielding to FOMO and social media because of their potential "double-edged" nature. On the one hand, these capabilities allow for very immersive experiences, but on the other, they may cause the user to feel a loss of agency and become cognizant of the feature's potential for disruption. This emphasizes the importance of treading the fine line between keeping users interested while also giving them control over the activities they perform and the manner in which they choose to do them about all times. The present study aims to determine possible influence of FOMO on academic burnout as mediated by social media. We posit that students would eventually experience academic burnout due to their excessive use of social media, thus we looked into the empirical (direct and indirect) links between FOMO and extreme social media usage, compulsive social media use, and social media fatigue.

Chapter 2 Literature Review

2.1 Fear of missing out: The social media context

The term "Fear of Missing Out" (FOMO) refers to a psychological state that is privately experienced but socially induced. It is characterized by a pervasive sense of anxiety that others may be enjoying rewarding experiences from which one is excluded. This phenomenon has been defined as apprehension or concern regarding disconnection, absence, or missing out on experiences that others, such as peers, friends, or family, may receive or enjoy, according to Przybylski et al. (2013). Individuals who experience FOMO may exhibit a persistent and strong desire to seek out and acknowledge the activities of others, as noted by Pollard (2012) and Przybylski et al. (2013).

For the first time in their lives, many college students specifically residential students will experience the freedom to pursue whatsoever they desire, as students will increasingly need to rely on their peers rather than their parents (Beyens et al., 2016). Due to difficulties in emotional adjustment, which are common during the transition to college life (Alt, 2015). It is crucial and of utmost importance for students to feel connected to and accepted by their peers (Oberst et al., 2017). Students who live in dorms and report having FOMO felt more social pressure than those who lived off-campus, according to a qualitative study (Adams et al., 2017). Interestingly very few attributed it to homework or academics. Social media appear to assist students by facilitating information exchange, fostering relationships with family and friends, and other activities (Alt, 2018).Only when experiencing FOMO does social media use correlate with college maladjustment (Alt, 2018).

The university generation of the new millennium is frequently described as having specialized ict systems and multitasking skills. Students with these abilities and attitudes are able to remain socially connected – trying not to miss out - while engaged in their independent work (Alt, 2015). Because of their busy schedules, students rarely stay up late for academic purposes, instead they mostly use the night to surf the internet (Adams et al., 2017), and instead use their free time on social media. Due to, they are wiped out by afternoon, in addition to using social media during classes for social activities unrelated to the subject matter or their learning processes (Alt, 2015, 2018; Oberst et al., 2017) as deep level learning does not occur at all times (M. A. Al Mamun et al., 2016; Lawrie et al., 2016), vast majority of students reported using multiple smart devices, with the primary purpose being social interaction (Qutishat & Sharour, 2019). Students' reactions, responses, and behaviors could be influenced by FOMO (Qutishat & Sharour, 2019). People who suffer from a severe case of FOMO are statistically more likely to exhibit highly engaged and compulsive social media use (Alt, 2015; Dhir et al., 2018). The fear of missing out (FOMO) contributes to the emergence of unintended consequences associated with youth's maladaptive technology use

(Oberst et al., 2017). The fear of missing out (FOMO) provides an explanation for why people with unmet psychological needs are so preoccupied with checking their social media accounts—even if doing so while driving or in other potentially risky scenarios (Przybylski et al., 2013), attending a lesson (Alt, 2015; Turkle, 2011), or being in a face-to-face conversation (Charoensukmongkol, 2016). Those who suffer from social phobia or avoidant personality disorder (also known as "nomophobia") may become overly reliant on their computers as a means of social interaction and an escape from their internalized isolation, stress and FOMO. The significance of this issue is reflected in the literature; for example, three-quarters of young adults (Przybylski et al., 2013) and three-thirds of young adults (Alt, 2015) report experiencing FOMO.

Individuals exhibiting FOMO tendencies often resort to excessive or maladaptive use of social media platforms to satisfy their social needs (Baker et al., 2016; Beyens et al., 2016; Oberst et al., 2017). Furthermore, individuals who engage in frequent social media use are likely to experience heightened FOMO, as evidenced by research conducted by Baker et al. (2016) and Wolniewicz et al. (2018). Additionally, some individuals may use social media as a coping mechanism to deal with FOMO (Schneider, n.d.). A self-perpetuating cycle may arise wherein individuals experiencing FOMO are compelled to engage with social media, t which, in turn, exacerbates their FOMO (Beyens et al., 2016; Oberst et al., 2017).

The corpus of research on the connections between social media use and wellbeing is undermined by inconsistent results. On one hand, the utilization of social media technologies among college students yields significant advantages, rendering it a necessity rather than a mere accessory. Additionally, they are utilized to carry out crucial tasks pertaining to communication such as text messaging, phone conversations, and email correspondence. Furthermore, they serve as a source of entertainment and facilitate more profound social (Qutishat & Sharour, 2019). Furthermore, social media has significantly reduced the expenses associated with generating, distributing, and obtaining a diverse range of readily available up-to-date information regarding ongoing activities, occurrences, and dialogues (Oberst et al., 2017; Przybylski et al., 2013). This phenomenon may result in individuals exhibiting an excessive concern for the thoughts, feelings, and behaviors of others, as well as engaging in comparisons of their own lives and accomplishments with those of others. The absence of linear connections in the physical world, coupled with the prevalent practice of establishing bonds through updated statuses, profiles, likes, and posts to maintain a constant connection with others, may still result in individuals experiencing FOMO.

On the flip side, various studies have indicated that individuals who experience high levels of FOMO tend to engage in lengthier periods of social media activity and may encounter symptoms

of depression, anxiety, and negative emotions (Baker et al., 2016; Beyens et al., 2016; Oberst et al., 2017), insomnia, compulsive social media use and eating disorder (Beyens et al., 2016); low life satisfaction, competency and personal interconnection (Baker et al., 2016; Elhai et al., 2016); emotional tensions and stress (Beyens et al., 2016; James et al., 2017; Schneider, n.d.); deterioration of physical, mental, as well as psychological well-being (Alt, 2015; Renau et al., 2015), problems in regulating mobile phone usage and emotional control (Elhai et al., 2016; Wolniewicz et al., 2018); and inadequate sleep and poor sleep quality (Adams et al., 2017; Scott & Woods, 2018) emotional exhaustion, interpersonal conflict, reduced relationship quality and deterioration of working performance (Dhir et al., 2018), procrastination (Schneider, n.d.), loneliness and academic failure due to stress and lack of (Alinejad et al., 2022). Moreover, most of these tendencies are exacerbated with time. Not even high levels of academic adjustment have been shown to reduce either FOMO or Social media engagement in the classroom (Alt, 2018).

2.2 Compulsive social media use

When a person exhibits compulsive use behavior, they display abnormalities in their ability to rationally regulate their habitual consumptions, as defined by Hirschman, (1992). Compulsive social media use is characterized by a lack of self-control regarding using patterns and duration (Klobas et al., 2018). In light of this research, we propose the following definition of compulsive social media usage: the inability to rationally control one's use of social media in terms of both quantity and duration. Each Internet or social media platform has its own set of incentives that might lead to compulsive use (Klobas et al., 2018). The online behaviors themselves, rather than the medium itself, are associated to compulsive social media use (Van Den Eijnden et al., 2016). Because of the prevalence of social media tools, people are increasingly engaging in compulsive behaviors related to their use of these platforms and engaging in fewer face-to-face social engagements (Apaolaza et al., 2019). Obsessions (recurrent and persistent recurring thoughts, mental images, or impulses) and compulsions (irrational, repetitive behaviors or mental acts that the affected individual feels compelled to perform to relieve the anxiety caused by an obsession) characterize compulsive use (Abramowitz et al., 2009). The psychological benefits of social media use, while appealing, may lead to unhealthy habits like constant checking and overuse (Oberst et al., 2017). It's established in the literature that students that compulsively and frequently use social media struggle when they attempt to solve their problems (Alt, 2018), increased behavioral engagement with social media (Przybylski et al., 2013), increases and induces stress (Apaolaza et al., 2019; Schneider, n.d.), leads to various mental and physical problems, such as emotional exhaustion, interpersonal conflict, and deterioration of working performance (Dhir et al., 2018; Lin et al., 2013), problematic learning

outcomes (Aladwani & Almarzouq, 2016). It has not been officially considered a mental disorder except in China (Renau et al., 2015).

An analysis of cellphone unlocking habits found that members of Generation Z unlock their phones an average of 79 times each day. The Silent Generation averaged only 18 unlocks per day, making them the least active generation. Millennials came in at number two, with an average of 63 unlocks per day. FOMO can be triggered or increased by the plethora of information available on modern technological devices in the form of possible interactions, and in turn, can lead to an increase in the frequency with which these devices are checked and the intensity with which they are used (Fuster et al., 2017; Przybylski et al., 2013). Consequently, fear of missing out may cause CSMU (Blackwell et al., 2017; Dhir et al., 2018; James et al., 2017).

2.3 Social media intensity

Terms like "problematic" (Bányai et al., 2017), "addictive" (Pontes, 2017), "pathological" (Holmgren & Coyne, 2017), and "excessive" have all been used interchangeably to describe social media intensity. According to (Moreau et al., 2015), this phenomenon is typically defined as spending too much time on social network sites and involving an excessive mental dependence on usage which can trigger psychological distress and physical discomfort. Social media intensity refers to the extent to which people engage with these platforms, including the frequency and duration of their use, the types of content they consume and create, and the social and emotional impact of their online interactions.

Both positive and negative effects on well-being have been linked to intensive use of social media. Positive effects of social media include increased communication, collaboration, enhance social capital, social support and belonging (O'Keeffe & Clarke-Pearson, 2011; Hampton et al., 2011; Ellison et al., 2014). However, negative consequences, such as increased anxiety, depression, loneliness, and FOMO, have been linked to excessive social media use (Kross et al., 2013; Rosen et al., 2013; Tandoc et al., 2015).

Social media intensity has been shown to be associated with several demographic and psychological factors. For example, social media use is more prevalent among the younger demographic and among women than among men (Perrin, 2016). Amichai-Hamburger and Vinitzky (2010) and Mehdizadeh (2011) both found that a person's personality traits, particularly their level of extraversion, neuroticism, and openness, could be used as a predictor of their usage of social media. It has also been found that social comparison and the need for social feedback are driving forces behind people's use of social media (Vogel et al., 2014).

The use of social media during work hours can lead to distractions, which can negatively impact employees' ability to concentrate on their tasks (Junco, 2012). This, in turn, can result in work-related stress. likewise social media use may lead to depersonalization as individuals may spend less time engaging in interpersonal interactions. Consequently, individuals who frequently use social media may lack the motivation to interact with others in person. Lastly, the use of social media during work hours may contribute to a sense of personal inadequacy among employees. For example, Schouten et al. (2007) found that receiving negative feedback from friends via social media was linked to lower self-esteem.

2.4 Social media fatigue

The term "social network fatigue" refers to the subjective, multi-dimensional user experience of feeling tired, irritated, angry, disappointed, guarded, uninterested, or lacking in need or motivation in relation to various aspects of social network use and interactions (Ravindran et al., 2013). Social media fatigue is a subjective and self-evaluated experience of exhaustion from use of social media, as defined by (Lee et al., 2016). Participation and communication on various online social media platforms can lead to technological, informational, and communicative overloads for users, resulting in mental exhaustion known as "social media fatigue"(Dhir et al., 2018). Stress, tiredness, and a general lack of motivation are just some of the bad feelings that can result from spending too much time on social media (Hattingh et al., 2022a). In general, SMF is said to be caused by low levels of confidence, privacy concerns, information overload, and excessive (Kwon et al., n.d.). SMF is a self-reported indicator of an individual's level of tiredness, boredom, or burnout from social media usage (Zhu & Bao, 2018). Dhir et al. (2018), Malik et al. (2021), and Shin & Shin (2016) are only a few of the scholarly works that express grave concerns over the possible drawbacks and urgent study into the multiple components linked with SMF. To cite: Dhir et al. (2019). SMF is a multi-faceted construct that can affect individuals in various ways (Desjarlais & Willoughby, 2010).

According to research Ravindran et al. (2013), Social media fatigue, like clinical fatigue, is also multidimensional in that the experiences comprise emotional, psychological, cognitive and behavioral aspects. As a result, users may experience anger, disappointment or annoyance due to fatigue causing experiences, at an emotional level. At a psychological level, user may become guarded, perceive addictive tendencies, experience boredom, or feel entrapped. At a cognitive level, thinking, reasoning and remembering may be affected when users are excessively or intensely engaged, or are overwhelmed by the demands. The behavioral dimensions of fatigue are determined the users' reactions to the experience range from taking pauses to modulating, halting, or lowering their activity levels, or even quitting. There is a spectrum of social media fatigue, from

a mild feeling of tiredness at one end to more persistent experiences and to a state of exhaustion or 'burnout' at the extreme end(Ravindran et al., 2013). Similar to the spectrum of social media fatigue observed in clinical/occupational fatigue, there appears to be a continuum of social media fatigue ranging from mild to severe.

Several studies have demonstrated that social media users with high FOMO are likely to spend more time on social media (social media intensity) (Baker et al., 2016), use it compulsively, and experience social media fatigue. When individuals encounter social media fatigue, they may be vulnerable to psychological and physical consequences, including reduced levels of life satisfaction and productivity (Dhir et al., 2018). SMF have been found to have a negative impact on users' mental and physiological well-being, which may increase the likelihood of developing unhealthy behaviors (Lim & Choi, 2017; Shin & Shin, 2016). The intensity of an encounter can be influenced by various factors such as the user's internal state, the social platform being utilized, and the immediate surroundings of the user. The experience of fear of missing out, perceived overload, compulsive use, and time cost can lead to emotional exhaustion, which in turn may prompt individuals to exhibit avoidance, withdrawal, and substitution behaviors with respect to social media. According to (Zhang et al. (2020), social media fatigue is the ultimate result of users experiencing pressure from excessive use of social networks.

2.5 Academic Burnout

While it was long thought that only professionals experienced burnout, this idea has since been expanded to include workers in every field and occupational grouping including academics (Schaufeli et al., 2002). Research has revealed that university students can also experience burnout, even high school students (Schaufeli et al., 2002; Walburg, 2014), typically with ill-being manifestations (Salmela-Aro et al., 2009). Student burnout is characterized by feelings of exhaustion, cynicism, and detachment from one's studies, as well as feelings of inadequacy (Carbonell et al., 2018; Schaufeli et al., 2002). Academic burnout or school-related burnout is the modern term for this type of exhaustion in the educational setting. As a result of excessive school demands, a lack of control, a lack of recompenses for high achievement, a lack of interpersonal relationships, and high expectations from significant others like teachers and family members (Slivar, 2001), academic burnout can manifest as exhaustion due to school demands, cynicism and detachment towards school, and feelings of inadequacy as a student (Walburg, 2014; Yang, 2004). Student burnout is defined by Yang (2004) as "a state of emotional exhaustion, a tendency to depersonalization, and a feeling of low personal accomplishment" among students engaged in the learning process due to course stress, course load, or other psychological factors.

Burnout is characterized by three positively correlated factors, emotional exhaustion, depersonalization or cynicism, and inefficacy or lack of personal accomplishment (Carbonell et al., 2018; Walburg, 2014). Some academics have cast doubt on this dimensionality, citing exhaustion and cynicism as the key factors (Choi & Meyer, 2013; Qiao & Schaufeli, 2011). Emotional exhaustion caused by exaggerated demands with which students are faced with their schoolwork is demonstrated through the feeling of being overloaded and exhausted (Slivar, 2001). Cynicism consists of an indifferent or distant attitude toward work, losing interest in one's work, or not seeing work as meaningful (Walburg, 2014). And lack of personal accomplishment is demonstrated through reduced feelings of competence, achievement, and accomplishment (Carbonell et al., 2018; Nteveros et al., 2020; Walburg, 2014; Penko, 1994). Four dimensions of school-related stress have been highlighted by Walburg (2014): difficulties with peers at school, parent and/or teacher conflicts, worries about school achievement, and school pressure. Academic burnout is caused by a misalignment between students' internal resources, school workload, their own expectations of school results, feelings of inadequacy, lack of interest, or expectations held by teachers or parents (significant others). work overload, lack of control, lack of reward, lack of community, value conflict, and lack of fairness (Carbonell et al., 2018).

Prior research has shown that burnout may lead to mental distress in the form of anxiety, depression, frustration, hostility, or fear (Carbonell et al., 2018), anxiety (Slivar, 2001), sleep quality, mental health, and academic performance, and students might use drugs as a coping strategy (Nteveros et al., 2020; Schaufeli et al., 2002; Walburg, 2014) to the extent of students having suicidal thoughts (Gerber et al., 2015). As students have higher burnout, they have lower academic achievement or performance (Carbonell et al., 2018; Yang, 2004). A study conducted among 1661 undergraduates from Spain, Portugal, and the Netherlands (Schaufeli et al., 2002) found that burnout is inversely correlated to university engagement and performances, independent of country of origin. Furthermore, it seemed that academic track students were at greater risk than their vocational and professional track counterparts. Undergraduate students scored in the middle to upper ranges of the burnout scale when compared to nurses, counsellors, and teachers (Carbonell et al., 2018; Pines et al., 1981). Findings indicate that children who have experienced burnout are more likely to miss school than their peers, on average missing 63 hours per year (Slivar, 2001). Girls experience burnout more than boys: 72.1% of girls and 27.9% of boys (Slivar, 2001; Walburg, 2014), girls tend to experience especially emotional exhaustion. Almost one in five study participants is "burned out" (Nteveros et al., 2020). Burnout is prevalent in students and increases significantly with time (Nteveros et al., 2020; Walburg, 2014). It is also not restricted by the size of the school,

culture, or geography (Baker et al., 2016; Slivar, 2001).Students experience some degree of burnout during the academic year (Yang, 2004).

2.6 Conclusion

Higher levels of FOMO predicted higher reports of work burnout and message-checking behaviors (CSMU). However, it does not predict work engagement or well-being (Budnick et al., 2020). According to Gerber et al. (2015), a drop in life satisfaction, mental toughness, and sleep quality, as well as an increase in depressive symptoms, were all highly associated to burnout.

Chapter 3 Research Methodology

3.1 Introduction

This chapter provides detailed information about the theoretical framework, research design, research context, population and sampling technique, the instrument design, instrument reliability and validity, data collection procedure and data analysis technique. The purpose of this study is twofold: to investigate the relationships among the construct FOMO, SMI, SMF, CSMU and academic burnout, and to develop a structural model that explains the relationships.

3.2 Theoretical background

3.2.1 Self-determination theory (SDT)

Self-determination theory (Deci & Ryan, 2000) posits that relatedness (or the need to belong) is one of the most fundamental human psychological needs. FOMO is about a pervasive apprehension that others might be having rewarding experiences from which one is absent. Because of inherent need to belong, we are often forced to situations that demand to observe others. Because of this, students are able to check their social media accounts regularly due to FOMO. The theory aids in the better understanding of FoMO, one of the key constructs in our approach.model. It follows from SDT that individuals' constant desire to evolve with social support drives them toward social media for relatedness and connectedness (Talwar et al., 2019). This claim was backed by the research conducted by Beyens et al. (2016), which found a correlation between teenagers' increased urge to belong and their increased need for popularity among Facebook users.

3.2.2 The theory of compensatory Internet use (TCIU)

According to the TCIU, using SMPs found online can help people deal with stressful events and negative emotions (Kardefelt-Winther, 2014). According to the notion, this type of compensatory use might lead to excessive reliance on technology, which in turn can have unintended consequences. Previous research has utilized the aforementioned theory to comprehend FoMO (Wang et al., 2018) and social media intensity (Wang et al., 2016), compulsive social media use (Hattingh et al., 2022), and fatigue (Tandon et al., 2021).

3.2.3 Distraction-conflict theory

Distractions arise and performance drops when people are motivated by the need to impress others (Sanders et al., 1978). With their smartphones, users always have access to social comparison tools provided by various social media platforms. When such immersive technology is available, it demands strong self-control to avoid getting sidetracked from essential activities (Turel & Qahri-

Saremi, 2016). Students who believe they are adept at media multitasking often show worse learning performance due to ineffective self-regulation mechanisms (Wu, 2017). Based on extrapolation to the present study, individuals with impaired self-regulation are prone to distraction and may exhibit suboptimal academic performance. Self-control and the ability to delay gratification have been linked to academic achievement in previous research (Gaudreau et al., 2014). Similarly, those who are better able to control their impulses are more likely to pursue their long-term goals, such as advancing their careers (Duckworth et al., n.d.).

(B. Han, 2018) studied the social media burnout issue from three perspectives: ambivalence, emotional exhaustion, and depersonalization. He devised a new scale to quantify the level of social media burnout experienced by users and conducted research on the influence that social media burnout has on users' post-adoption intentions. He came to the conclusion that ambivalence, emotional weariness, and depersonalization can all significantly affect a user's continued participation in social media in a manner that is not positive. In addition to this, he discovered that ambivalence, emotional weariness, and depersonalization can all greatly impact a user's ability to continue using social media in a negative manner. The rapid and widespread acceptance of social media has led to an intensive usage of it, with users spending more than 20 minutes each day posting information and checking the posts of other people, and creating more than 30 billion pieces of material monthly on Twitter (B. Han, 2018). More than sixty percent of people who use Facebook say they feel like they need a break from the platform and would like to take a "Facebook vacation" during which they do not access the platform at all (B. Han, 2018). These findings come from research conducted by the Pew Research Institute.

3.3 Research model and hypothesis development

This section explains the selection process for the study's constructs and their relationships. In addition to taking into account the mediating effects of social media intensity, compulsive social media use, and social media fatigue, the current study looks at FOMO as an antecedent of academic burnout. To the best of our knowledge, the links that are anticipated to exist are understudied in the existing literature. The proposed research model is shown in Fig. 1. Academic burnout, FOMO, social media fatigue, and compulsive social media use have all been studied in the past using various theoretical frameworks. The present study establishes a model that utilizes the combination of these frameworks for understanding the relationship.
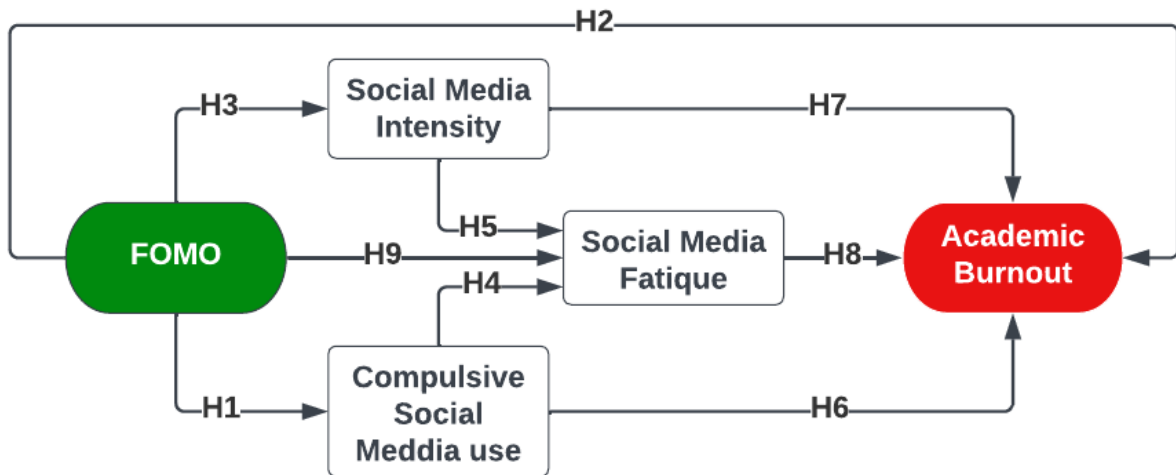
Figure 1 Research model

People who have a higher level of FOMO may be more likely to perceive higher social demands due to their want to not miss out and may be driven to seek out interactions in order to ease their worry and meet their need shortfalls (Budnick et al., 2020). As such they are more prone to expend mental energy considering social elements and neglect to take adequate downtime as a result, leading to increased symptoms of burnout. FOMO is currently quite prominent since new research indicates that it generally predicts indications of poor health and wellbeing, such as anxiety, fatigue, and a lack of overall life satisfaction (Alt, 2018; Elhai et al., 2016; Przybylski et al., 2013; Wolniewicz et al., 2018). The FOMO on some social media posts or information of friends forces one to use social media compulsively (Pradhan, 2022). The frequency of social media account checks is positively correlated with general FOMO (Alt, 2015, 2018; Scott & Woods, 2018; Przybylski et al., 2013; Budnick et al., 2020). Also, Higher levels of FOMO predict higher reports of burnout, message-checking behaviors compulsive use behavior (Budnick et al., 2020; Desjarlais & Willoughby, 2010; Oberst et al., 2017) To our knowledge, here hasn't been any research connecting FOMO and academic burnout to date, but we anticipate a correlation between the two. Thus, we hypothesize the following;

H1: FOMO predicts compulsive social media use.

H2: FOMO will be associated with academic burnout.

Oberst et al. (2017) found that those present FOMO, i.e., who feel that they are absent from their peers' rewarding experiences, are especially at risk because they might use social media to compensate for this deficit by excessively trying to relate to others online. This increased activity

can produce more feelings of not being connected enough and may result in more social media engagement to try to compensate (Oberst et al., 2017). Based on this review, we hypothesize:

H3: FOMO is positively associated with social media intensity.

Fewer recent empirical studies have linked fatigue as a result of compulsive media use (Hattingh et al., 2022a; Pradhan, 2022). Compulsive Internet use resulted in increased emotional fatigue which ultimately translates into poor physical performance and perceptions. Dhir et al. (2018) suggests that compulsive media use significantly triggered social media fatigue, which later results in elevated anxiety and depression. Fear of missing out indirectly predicted social media fatigue through the mediation of compulsive social media use (Dhir et al., 2018). We hence posit that Compulsive social media use is positively associated with social media fatigue.

H4: Compulsive media use predicts social media fatigue.

SMF refers to the adverse feelings that result from using social media, such as stress, exhaustion, and lack of energy (Hattingh et al., 2022a). Excessive use of social media can have adverse outcomes for users, including fatigue (Dhir et al., 2018; Luqman et al., 2017). In his study, Malik et al. (2021) found that intensity of social media use was the strongest predictor of social media fatigue. The likelihood of developing social media fatigue may be increased by both FOMO and problematic social media use (Shen et al., n.d.). Excessive use of social media leads to exhaustion and fatigue (Elhai et al., 2016; Oberst et al., 2017; Pradhan, 2022).

H5: Social media intensity predicts social media fatigue.

The correlation of academic burnout with the social media variables of this study can be intuitively proposed since the symptoms and consequences of both the social media variables and academic burnout are almost the same. To our know, no prior evidence of the association between the variables and academic burnout exists. However, we do know social media fatigue positively correlates with job burnout (Malik et al., 2021) and that academic burnout mirrors professional burnout (Maslach et al., 2000).

Given the mental, emotional, and physical exertions (anxiety and depression) associated with both academic burnout and the social media variables. They share several common characteristics with academic burnout. Both contribute to decrease in academic performance, negative consequences on well-being, increased users' emotional exhaustion, decrease work performance (Cadime et al., 2016; Carbonell et al., 2018; Dhir et al., 2016, 2018; Evers et al., 2020; Kwon et al., n.d.; Lim & Choi, 2017; Luqman et al., 2017; Malik et al., 2021; Maslach et al., 2000; Pradhan, 2022;

Schaufeli et al., 2002; Schaufeli & Bakker, 2004; Shin & Shin, 2016; Slivar, 2001; Walburg, 2014). These observations lead us to suggest the following hypotheses.

H6: Compulsive social media use is positively associated with academic burnout.

H7: social media intensity is positively associated with academic burnout.

H8: social media fatigue is positively associated with academic burnout.

H9: FOMO is positively associated with social media fatigue.

3.4 Methods

3.4.1 Population and Participants

The population incorporated in this study comprised of Ph.D., Masters, BSc, and Diploma students from International, private and public universities from about 20 nationalities including both males and females irrespective of the year of their studies and specialization. 300 college students who willingly participated in the study made up the sample (M=18.73; SD=1.41), between the ages of 17 and 54, with 75% of the participants being male.

3.4.2 Sampling Technique

The study employed cross-sectional data sets collected from university students. Self-report questionnaires are popular for measuring online behavior because they enable researchers to cover a large population in a short period (Kuhlemeier & Hemker, 2007; van Deursen et al., 2012). Convenience sampling was used to select the respondents. The participants in convenience sampling are selected based on their accessibility and proximity to the researcher. It is a non-probability sample technique. In order to overcome the lack of representativeness brought on by this sampling strategy, a sizable sample is essential. Since they are aware of its advantages in terms of simplicity, accessibility, speed, economy, and participant availability, many researchers respect and recommend this sampling approach. The selection of the appropriate sample enables the instrument to be adjusted for the most efficient and objective data collecting in accordance with the objectives.

3.4.3 Survey development

The questionnaire used for this research is composed of 30 items arranged in five sections based on the research model. First, the respondents' demographic data; second, the measures of the independent variable FOMO; third and fourth, the items measuring the mediating variables SMI, SMF and CSMU; and fifth, the items measuring the dependent variable academic burnout. All

variables were adopted from prior literature and were measured on a five-point Likert scale with response choices ranging from "Strongly disagree (1)" to "Strongly agree (5)". Table below summarized the survey questionnaire.

FOMO: The FOMO construct was measured using the FOMO questionnaire Przybylski et al. (2013). It is a 10-item self-reported questionnaire (e.g., "It bothers me when I miss an opportunity to meet up with friends"). The responses were anchored around a five-point scale, ranging from (1) "Not at all true of me" to (5) "Extremely true of me" with higher scores indicating higher levels of FOMO (Przybylski et al., 2013).

Social media: Compulsive social media use was measured using a modified version of Meerkerk & Basement Grafische Producties (2007) Compulsive Internet Use Scale. Sample items include "I have repeatedly made unsuccessful attempts to control, or stop my use of social media?" and "I feel restless, moody, or depressed when attempting to control or stop the use of social media?" (Aladwani & Almarzouq, 2016).

Social media fatigue: Social media fatigue was measured using a modified version of (Bright et al., 2015) scale. Sample items include "I find it difficult to relax after continually using social media?" and "Due to Social Media use, I feel exhausted."

Social media intensity: Social media intensity was measured using a modified version of (Moin et al., 2015) and (McKnight et al., 2004) scales. Sample items include "I feel social media is part of my everyday activity." and "I feel out of touch when I haven't logged onto social media for a while."

Academic burnout: A modified version of the Maslach Burnout Inventory (MBI) (Maslach et al., 2000) was used to was measured Burnout because it is the most widely used questionnaire to assess burnout. For instance, the item "I feel emotionally drained from my work [italics added]" was rephrased as "I feel emotionally drained from my study.

Table 1 Questionnaire Items

S/NO	Variable	Items	Source
1.	Fear of missing out	9	(Przybylski et al., 2013)
2.	Social media intensity	8	Moin et al. (2015); McKnight et al. (2004)
3.	Social media fatigue	7	(Bright et al., 2015)
4.	Compulsive social media use	7	(Meerkerk & Basement Grafische Producties, 2007)
5	Academic burnout	8	(Maslach et al., 2000)

3.4.4 Data collection Procedure

This study uses a cross-sectional survey instrument. Survey questionnaires were employed both online in Google Form and printed document to gather data. Insight about the study was provided to the participants before they filling it. They were made aware that their participation in the study was optional and that the questionnaire had been created to safeguard their anonymity and conceal their identity. A pilot version of the survey was distributed to four students, a PhD, masters BSc and a diploma, to evaluate content validity and assess the suitability, readability, ambiguity, and complexity of the scale. Based on the responses from the students, the survey was modified.

The questionnaire was distributed to the students via social media platforms, while the printed copies were distributed to students by the research who visited the university libraries, academic buildings, student dormitory on several occasions and different times. When a student accepted to take part, they were asked to fill out the questionnaire and provide it to the researcher waiting at the place. The survey occurred within three-months and obtained a response rate of 100% for the printed forms, cumulatively 277 questionnaires.

3.5 Data preparation and Analysis Technique

3.5.1 Data preparation

Checking that the acquired data is free of any anomalies is crucial before starting any data analysis procedure. Preparing and filtering data are, thus, fundamental to effective data analysis. In order to characterize the participants in this study, descriptive statistics are used on the respondents' attribute data. Our choice of statistical method was motivated by the nature of our study. The measurement model is analyzed with structural equation modelling (SEM), and the resulting theoretical model is tested for its ability to explain the data (model fit). One response was screened out of the data set during analysis because of inconsistencies in the answers provided. As a result, 276 samples could be analyzed. In order to characterize the data, a descriptive analysis of the quantitative parts of the survey was performed. Additionally, a battery of paired sample t-tests was run to determine statistical significance. The overall performance in each setting was analyzed using paired sample t-tests rather than the results of individual questions.

3.5.2 Data analysis technique

We analyzed the survey data using the partial least squares (PLS) approach with the SmartPLS 4. PLS is a second-generation regression method that combines confirmatory factor analysis with linear regression, which makes it possible to run the measurement and structural models simultaneously (Kaplan, 2001). PLS is an appropriate method to use when the goal of the study is

both to evaluate the validity of a research model, and to test the hypothesized relationships within that model (J. Hair et al., 2017), as is the case for this present study.

Models in PLS-SEM are evaluated in two stages. First, we look at the measurement models, which, depending on the type of measurement model, requires a variety of metrics.

In PLS-SEM, evaluating a model takes place in two stages. As a first step, we'll look at the measurement models, which will need us to use a variety of metrics (Sarstedt & Cheah, 2019). When evaluating reflective measurement models, we must consider construct and indicator validity, as well as convergent and discriminant validity (J. F. Hair et al., 2019; Sarstedt & Cheah, 2019). Convergent validity, multicollinearity, and the importance and relevance of the indicator weights must all be evaluated in order to determine the quality of a formative measurement model (Sarstedt & Cheah, 2019). In the second stage, the structural model is examined, with an emphasis on the path coefficients' importance and relevance as well as the model's explanatory and predictive power (i.e., R^2).

As such, the analyses were done in two steps. First, we looked at convergent validity and construct dependability. [Composite reliability, Cronbach's alpha, Outer loadings, Average variance extracted (AVE)]. We then put the structural equation model to the test. In order to estimate the structural equation model, we employed the maximum likelihood technique.

Chapter 4 Results and Data Analysis

This chapter provides statistical analysis and insights into data collected from the survey and explains FOMO present in students and academic burnout by investigating their underlying relationships. In other words, this chapter explores the relationships between FOMO and academic burnout and validates the proposed model. In this process, first the participants and the demographic information has been presented using descriptive statistics. Next, the validity and reliability assessments are given to evaluate the inherent relationships between the latent and measured variables. Further, structural equational modeling is used to shed the light on the interrelation and by extension, the mediating role played by social media intensity, social media fatigue, and Compulsive social media use.

4.1 Preliminary Analysis/ Descriptive Analysis

4.1.2 Description of the demographic information

The 276 participants of this study were students from about 20 African and Asian countries, studying both for postgraduate and undergraduate, in public and private universities with ages ranging from 17 to 54. Having more male than female participants. **Table 5** displays the student population's demographic breakdown.

Gender
The descriptive analysis revealed that male participants had dominated their counterpart with wide range 68.2% to 31.8%.
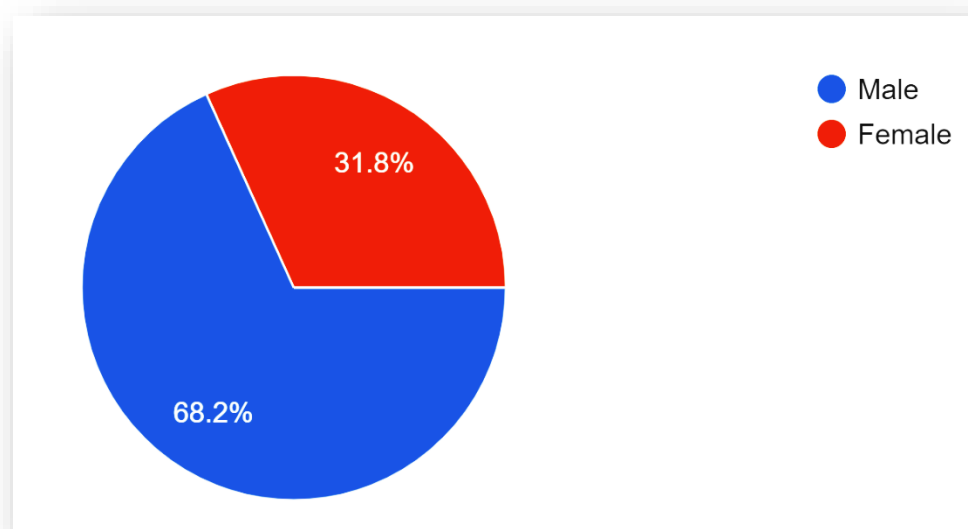
Figure 2 descriptive - Gender

University type

The students were from private, public, and international universities. During analysis, they were categorized into two, with private and public university consider as the same, now making it international (74.6%) and public (26.4%).
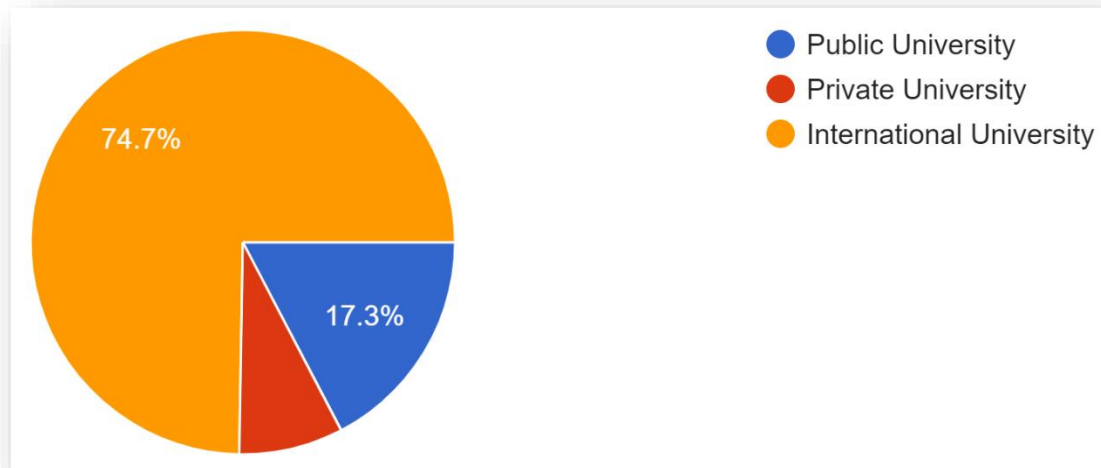
Figure 3 descriptive - University type

Education level

The students that participated in the study were PhD, masters BSc and diploma students. During analysis, they were categorized into two, with PhD and Masters considered the same graduate, also BSc and Diploma taken as undergraduate now making it graduate (78.7%) and undergraduate (21.3%).
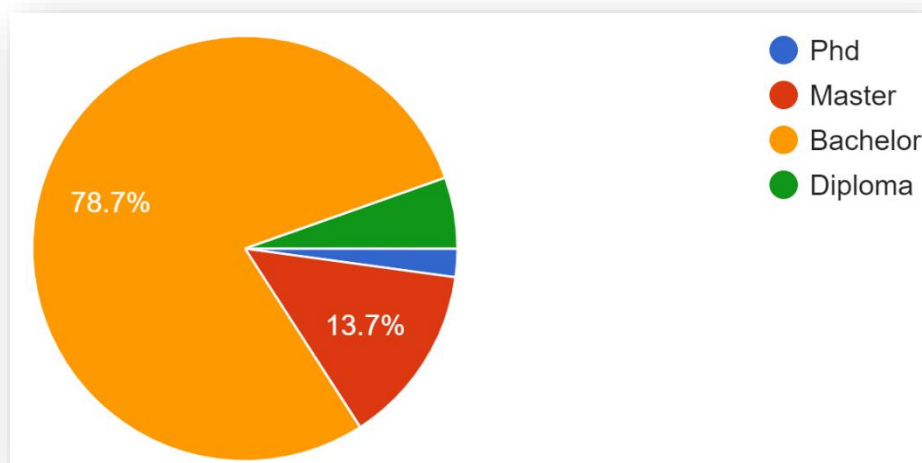
Figure 4 descriptive - Education level

Age

Age was measured as a continuous variable unlike the other which were measured as categorical variables. 17 years was the minimum age while 54 years was the maximum age recorded.
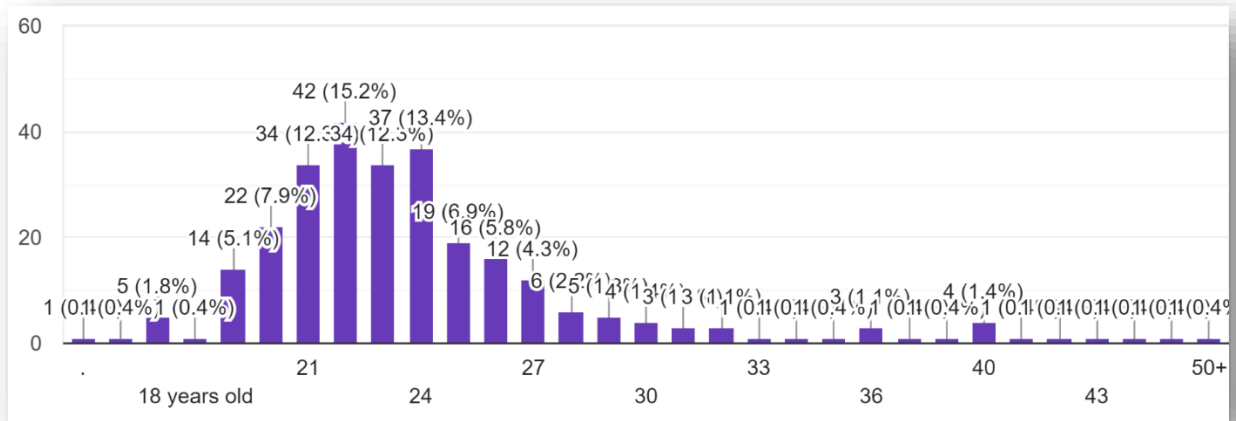
Figure 5 descriptive - Age

Region

The regions were initially measured as nationality, but data was collected from a large number of countries. The researcher then divided it based on geographical locations as Africa and Asia and data was only collected from these two continents. We observed more responses from Africa (198) than in Asia (77).

Table 2 Demography summary

Name	Missing	Mean	Median	Stdev	Excess kurtosis	Skewness
Region	0	1.72	2	0.449	-1.037	-0.985
Gender	0	1.32	1	0.466	-1.408	0.776
Age	0	24.135	23	4.86	6.003	2.169
University Type	0	1.745	2	0.436	-0.721	-1.133
Current program	0	1.156	1	0.363	1.632	1.903

Descriptive statistic of the individual items

The mean, median, and standard deviation for each of the constructs tested in this study are also shown. Kurtosis and skewness were also examined. There are five constructs with their respective observed variables.

Table 3 Descriptive statistic of the individual items

Name	Missing	Mean	Median	Observed min	Observed max	stdv	kurtosis	Skewness
FOMO 1	0	2.56	2	1	5	1.359	-1.064	0.371

25

FOMO 2	0	2.396	2	1	5	1.38	-1.182	0.447
FOMO 3	0	2.084	2	1	5	1.217	-0.454	0.838
FOMO 4	0	3.415	4	1	5	1.389	-1.068	-0.452
FOMO 5	0	2.429	2	1	5	1.22	-0.768	0.45
FOMO 6	0	2.447	2	1	5	1.359	-1.107	0.453
FOMO 7	0	2.491	2	1	5	1.33	-1.144	0.341
SMI 1	0	3.331	3	1	5	1.657	-1.619	-0.248
SMI 2	0	3.669	4	1	5	1.309	-1.009	-0.505
SMI 3	0	3.56	4	1	5	1.276	-0.868	-0.473
SMI 4	0	3.695	4	1	5	1.316	-0.689	-0.712
SMI 5	0	3.196	3	1	5	1.353	-1.129	-0.237
SMI 6	0	3.12	3	1	5	1.355	-1.155	-0.175
SMI 7	0	3.458	4	1	5	1.375	-0.992	-0.477
CSMU 1	0	3.095	3	1	5	1.401	-1.263	-0.026
CSMU 2	0	2.709	3	1	5	1.3	-1.072	0.244
CSMU 3	0	3.167	3	1	5	1.448	-1.318	-0.128
CSMU 4	0	2.607	2	1	5	1.307	-0.983	0.383
CSMU 5	0	2.862	3	1	5	1.33	-1.118	0.19
CSMU 6	0	2.945	3	1	5	1.437	-1.298	0.007
CSMU 7	0	3.469	4	1	5	1.417	-1.113	-0.453
SMF 1	0	3.171	3	1	5	1.344	-1.11	-0.225
SMF 2	0	2.815	3	1	5	1.279	-1.025	0.12
SMF 3	0	2.785	3	1	5	1.316	-1.054	0.199
SMF 4	0	2.622	3	1	5	1.349	-1.058	0.338
SMF 5	0	3.236	3	1	5	1.312	-1.009	-0.26
SMF 6	0	3.004	3	1	5	1.283	-1.006	-0.069
SMF 7	0	3.378	3	1	5	1.344	-0.969	-0.38
Academic Burnout 1	0	3.556	4	1	5	1.346	-0.938	-0.503
Academic Burnout 2	0	3.007	3	1	5	1.346	-1.182	-0.058
Academic Burnout 3	0	2.865	3	1	5	1.445	-1.336	0.091
Academic Burnout 4	0	2.807	3	1	5	1.441	-1.303	0.15
Academic Burnout 5	0	2.709	3	1	5	1.507	-1.398	0.248
Academic Burnout 6	0	3.324	3	1	5	1.285	-0.984	-0.312
Academic Burnout 7	0	3.473	4	1	5	1.412	-1.004	-0.505
Stdev	0	1.218	1.222	0.601	1.997	0.29	-0.417	0.161

To understand the sample characteristics we examine mean, standard deviations and correlations of study variables. **Table 7** shows the significant correlation between each of the study's variables, thus providing initial support to proceed further for hypotheses testing. The only relationship that is not statistically significant is the correlation between academic motivation and relatedness.

However, researchers argued that "correlation does not imply causation", thus we can proceed for structural equation modelling to test the hypothesis. To report the measurement and structural model assessment results, Hair et al. (2019) standards were adhered to.

4.2 Statistical Assumptions Underlying Structural Equation Modeling

In order to achieve reliable inferences, structural equation modeling, like all statistical approaches, depends on the fulfillment of a number of underlying assumptions. The main presumptions for structural equation modeling are multivariate normality, the absence of systematic missing data, an adequate sample size, and accurate model specification.

4.2.1 Sampling Assumptions

Structural equation models are commonly employed, however, for analyzing data that was not acquired using a purely random method. PLS-SEM suggests a sample size equal to 10 times the number of directed arrows to each independent variable (Hair et al., 2014). In this study, we see a total of nine arrows, each one pointing to a different variable in the underlying conceptual model. To achieve the standards for representativeness, we would need 90 valid surveys. As can be seen, our sample size (274) is significantly more than what is needed and thus meets this requirement.

4.2.2 Missing Data

Typically, complete data are assumed to be available for each unit of analysis when using statistical approaches like structural equation modelling. Simply there is no missing data in any variable. The researcher ensures that there were no missing values in the dataset. First the all the questions in the form must be filled else the form won't be submitted. For the questionnaire in hard copy, the forms with missing values were discarded.

4.2.3 Specification Error

A successful structural equation model requires a correctly described model. A specification error is when any equation in the system of equations created by the structural equation model does not contain the necessary variables. This affects both the equations of the measurement model and the equations of the structural model. The problem, like the problems with non-normality and missing data, is how much missing variables affect inferences.

Measurement errors resulting from biased data collection techniques and instruments, as well as respondent inaccuracies, have an impact on the model's fit. The standard error is also impacted by the variation of the dataset. The standard error decreases as the variance rises, which goes against the underlying assumptions of data normalcy.

4.2.4 Non-normality

Prior to model construction and assessing fit indices, it is necessary to assume that the observations are normally distributed. The conventional use of structural equation modeling relies on the assumption that the data points being analyzed are samples from a continuous and multivariate normal population. Many factors were considered, and it turned out that they were all fine because they were ordinal (Likert-scale) factors. Nonetheless, data normality is an extremely unusual occurrence in practice. According to the skewness and kurtosis of the data, researchers choose an estimating method.

4.3 Assessing Measurement model

In order to determine whether or not the indicators (items) of the measurement model are valid and reliable, we conduct an assessment of the model based on factor loadings, internal consistency reliability, convergent validity (average variance extracted (AVE)), and discriminant validity. Existing research, such as that by J. F. Hair et al. (2019) establishes a precedent and lends credibility for the use of these metrics in PLSSEM analysis. The reflective model is assessed for construct reliability and convergent validity. The test must yield statistically valid results. The model and indication must be considered if the results are outside the range.

4.3.1 Construct reliability and convergent validity

The measurement model was assessed for (indicator) reliability by using composite reliability, and Cronbach's alpha. Both the Cronbach's alpha and the composite reliability were higher above the thresholds of 0.70, allowing for the retention of all items (Fornell & Larcker, 1981). Convergent validity measures how closely theoretically related scale items are in practice (Whelan et al., 2020). We looked at item loadings, composite reliabilities, and AVE values to determine the convergent validity. Items with factor loadings below 0.60 were removed from the model. In so doing, 1 item from *Academic Burnout,* 1 item from *FOMO,* 1 item from *SMF,* and 1 item from *SMF* were removed reducing the measurement model to 31 items.

The Cronbach's alpha and composite reliability scores reveal that all five model constructs are over the suggested level of 0.70 (see **Table 5)**, and also all five constructs but 1, of the model satisfied the recommended threshold AVE value of 0.50 (J. F. Hair et al., 2019), therefore showing appropriate construct validity and reliability.

Table 4 Factor Loadings

Construct	Items	Loadings
Fear of Missing Out (FOMO)	FOMO 1	0.667

	FOMO 2	0.716
	FOMO 3	0.668
	FOMO 4	0.643
	FOMO 5	0.701
	FOMO 7	0.712
Compulsive Social Media Use	CSMU 1	0.703
	CSMU 2	0.73
	CSMU 3	0.805
	CSMU 4	0.645
	CSMU 5	0.696
	CSMU 6	0.687
	CSMU 7	0.689
Social Media Fatigue	SMF 2	0.714
	SMF 3	0.763
	SMF 4	0.735
	SMF 5	0.778
	SMF 6	0.741
	SMF 7	0.66
Social Media Intensity	SMI 2	0.674
	SMI 3	0.875
	SMI 4	0.829
	SMI 5	0.661
	SMI 6	0.712
	SMI 7	0.643
Academic burnout	Academic Burnout 1	0.62
	Academic Burnout 3	0.796
	Academic Burnout 4	0.816
	Academic Burnout 5	0.687
	Academic Burnout 6	0.77
	Academic Burnout 7	0.719

Table 5 Reliability, convergent validity and correlations with Fornell-Larcker Criterion

Theoretical Constructs	CA (α)	CR	AVE	Academic Burnout	CSMU	FOMO	SMF	SMI
Academic Burnout	0.83	0.841	0.544	0.738				
CSMU	0.836	0.85	0.503	0.482	0.709			
FOMO	0.776	0.775	0.47	0.381	0.462	0.685		
SMF	0.827	0.827	0.537	0.703	0.581	0.392	0.733	
SMI	0.831	0.853	0.544	0.282	0.588	0.34	0.316	0.737

4.3.2 Discriminant Validity

Discriminant validity examines whether or not the items accurately assess the targeted construct rather than a confounding one. The model's discriminant validity was analyzed using the Fornell-

Larcker criterion and the heterotrait-monotrait correlation ratio (HTMT). When assessing the cross loadings, each indicator's factor loading is larger in its underlying construct than in others, which proves the measurement model's discriminant validity according to J. Hair et al. (2017). To demonstrate discriminant validity, the correlation between latent constructs must be smaller than the square root of their AVEs (Fornell & Larcker, 1981). The off-diagonal correlation values are consistently shown in the table to be less than the square roots of the AVE values. As a result, the discriminant validity of the suggested model is adequate.

To further evaluate discriminant validity, we assesed the HTMT ratio of the correlations. When the constructs are perfectly reliable, the HTMT method can estimate the true correlation between them. (Saidu & Al Mamun, 2022). The deficiency of discriminant validity is shown by a correlation value near to 1.0 between two constructs.

Table 6 Results of Heterotrait-monotrait ratio (HTMT) for discriminant validity

Theoretical Constructs	Academic Burnout	CSMU	FOMO	SMF	SMI
Academic Burnout					
CSMU	0.56				
FOMO	0.46	0.554			
SMF	0.84	0.678	0.475		
SMI	0.312	0.695	0.418	0.355	

Table 4 shows that There is not a single model construct that is over the threshold value of 0.85 (Henseler et al., 2015), indicating valid discriminant validity. These results confirmed that the model measures are reliable, valid, and distinct relative to other theoretically related phenomena.

The study questions previously stated were addressed by data analysis. Its main objective was essentially to assess the proposed model by establishing whether it is sufficiently comprehensive. The test for the structural model is composed of two components: R-square values, which quantify the amount of explained variation in dependent variables, and path coefficients estimates, which measure the strength of the correlations between the dependent and independent variables.

4.4 Assessing Structural Model (Hypothesis testing)

4.4.1 Structural Equation Modeling (SEM)

There are two parts to a structural equation model: separate from the outer model, which specifies the relationships between the latent variables and the observable outcomes, is the inner model, which defines the relationships between the independent and dependent latent variables (see Figure

1) (Kaplan, 2001). A variable might be exogenous or endogenous in structural equation modelling. The arrows in the diagram always point away from an external variable, never in. Endogenous variables, on the other hand, has at least one path that leads to it and illustrates how other factors have affected the outcome of the experiment (Kaplan, 2001).
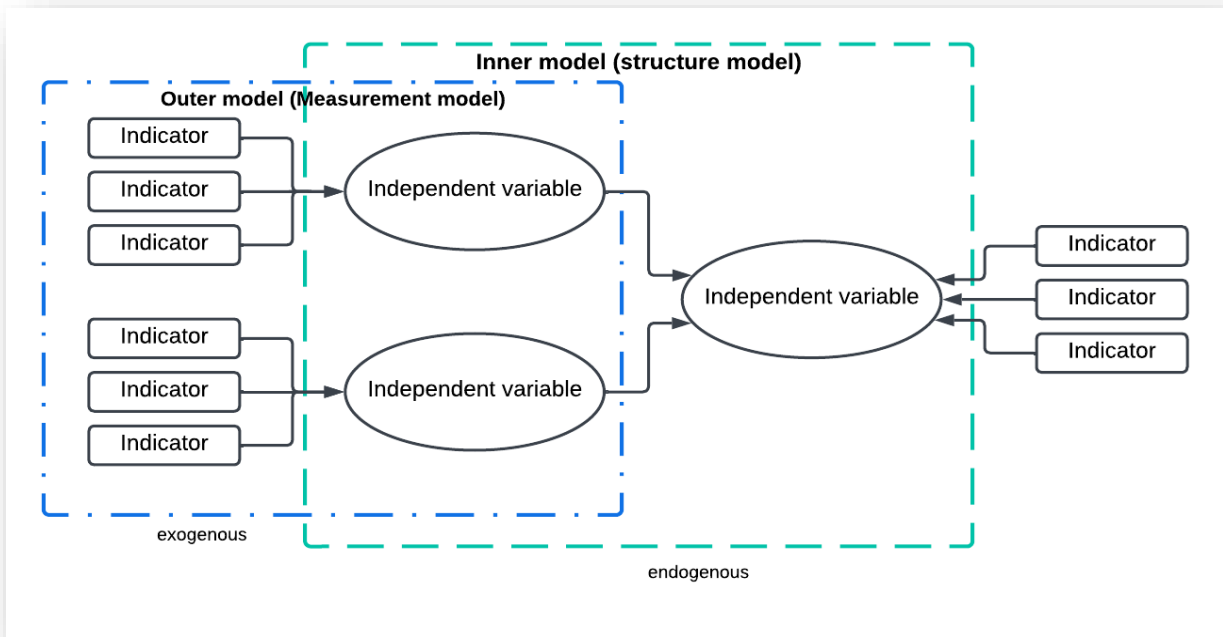
Figure 6 Inner vs. Outer Model in a SEM Diagram

| Relationship Paths | β value | STDEV | t | P | Bias Corrected CI | | f-square | VIF | R-square | SRMR |
					2.50%	97.50%				
CSMU -> Academic Burnout	0.068	0.065	1.038	0.299	-0.061	0.194	0.004	2.187	0.511	
FOMO -> Academic Burnout	0.102	0.055	1.866	0.062	-0.006	0.209	0.016	1.324		
SMF -> Academic Burnout	0.62	0.051	12.305	0	0.519	0.717	0.504	1.559		0.073
SMI -> Academic Burnout	0.012	0.056	0.201	0.841	-0.099	0.121	0	1.548		
FOMO -> SMF	0.162	0.064	2.061	0.039	0.032		0.022	1.282	0.359	
SMI -> SMF	-0.038	0.066	0.572	0.568	-0.178	0.082	0.003	1.543		

CSMU -> SMF	0.539	0.058	10.474	0	0.489	0.713	0.261	1.734	
FOMO -> CSMU	0.462	0.05	9.29	0	0.344	0.543	0.271	1	0.213
FOMO -> SMI	0.34	0.057	5.932	0	0.209	0.438	0.131	1	0.116

Results

4.5 Model Path Analysis

Among the various theoretical constructs, we investigated the structural model for multicollinearity issues, predictive explanatory power (R2), and PLS predict (Q2 predict). There are no multicollinearity difficulties in the model, as evidenced by the fact that all VIF values in Table 7 are less than 5.0 (Fornell & Larcker, 1981; Sarstedt et al., 2021). Multicollinearity is considered to be a concern when the VIF is greater than 5, and a VIF greater than 10 indicates a serious issue (J. F. Hair et al., 2017).

Table 7 Assessing the structural model with path co-efficient

*Significant at $p < 0.05$; ***Significant at $p < 0.001$

In order to determine whether or not the path coefficients in the structural model were statistically significant, we calculated the standardized regression () and the corresponding t-values using a bootstrapping approach with 10,000 repetitions, as suggested by J. F. Hair et al. (2017).

According to the guidelines provided by J. F. Hair et al. (2017), we determined whether or not the path coefficients of the structural model were statistically significant by calculating the standardized regression () and the corresponding t-values using a bootstrapping approach with 10,000 iterations.

According to the guidelines provided by J. F. Hair et al. (2017), we measured the standardized regression *(β)* and corresponding t-values by a bootstrapping approach with 10,000 iterations to determine the statistical significance of the path coefficients in the structural model. Effect sizes (f2) were included, as recommended by (J. Hair et al., 2017). The p-value simply indicates the possibility of a statistically significant effect, not its magnitude, as underlined by Sullivan & Feinn (2012). Consequently, In order to properly present and interpret the data, Sullivan & Feinn (2012) recommend including both the effect size (f2) and p-value. Cohen (1988) recommends f2 values of 0.02, 0.15, and 0.35 for small, medium, and high effect sizes. To enhance the outcomes and meet the scientific and statistical requirements, the test procedure was repeated numerous times and some indicators were removed.

Table 7 shows the model's path coefficients and results that are statistically significant for the relationships in the model. The results reveal that *SMF* (β = 0.186, t =2.931, p <0.01, f2 = 0.027), and *CSMU* (β = 0.275, t =4.684, p <0.001, f2 = 0.065) have statistically significant influence on academic motivation. Similarly, FOMO (β =0.162, t = 2.061, p <0.039, f2 = 0.022) and CSMU (β =0.539, t = 10.474, p <0.001, f2 = 0.261) significantly impacted the SMF, but SMI tends to have a negative effect but not significant (β =-0.038, t = 0.572, p <0.568, f2 = 0.003).

The predictive explanatory power (R^2) measures how well the exogenous factors explain the endogenous variables. J. Hair et al. (2017) states that R^2 values of 0.19, 0.33, or 0.67 indicate weak, middling, or strong predictive power, respectively. Our model shows a substantial predictive power (R^2=0.359) to explain *SMF* by FOMO, (R^2=0. 511) to explain academic burnout; a moderate predictive power (R^2=0. 213) has been shown in the model to explain *CSMU*.

As Dolce et al. (2017) point out, the R^2statistic can be interpreted as a measure of a model's predictive power, but it only reveals in-sample explanatory power and does not provide any information regarding the model's out-of-sample predictive potential. To address this concern, PLSpredict provides a method for gauging a model's out-of-sample predictive power (that is, its accuracy in estimating the value of outcomes for cases that have not yet been observed) (Shmueli et al., 2016, 2019).

The model's prediction is described in detail under Blindfolding Procedures. Any value above zero indicates a good forecast, whereas values below zero are meaningless. This prediction is defined as Q^2. A low prediction is indicated by a value of 0.02 or less, a moderate prediction by a value of 0.15 or less, and a high prediction by a value of 0.35 or more. Our structural model generally has a moderate and in other cases high prediction power. All of Q^2s scores are above the middle level, but CSMU has a higher prediction power of above 0.15.

Table 8 Q^2 Values for the Model – Prediction Power

Endogenous Construct	Q²predict
Academic Burnout	0.133
CSMU	0.198
SMF	0.141
SMI	0.102

4.6 Mediation Analysis (Total effect, Direct effects, and specific indirect effects)

Mediation analysis was performed to assess the mediating role of *social media (SMI, CSMU and SMF)* on the relationships between FOMO and academic burnout **Table 9**. We found that the relationships between *FOMO* and *academic burnout* are fully mediated by *SMF* and *CSMU* together, also SMF fully mediates the relationships between *FOMO* and *academic burnout*, as well as *CSMU* and *academic burnout,* and finally, *CSMU* partially mediates the relationship between *FOMO* and *SMF*. The direct effect between FOMO and academic burnout was insignificant (β = 0.102, t =1.860, p = 0.063). With the presence of mediators of *CSMU* and *SMF* there is significance (β = 0.154, t = 4.856, p < 0.05). With the presence of mediator of SMF there is significance (β = 0.101, t = 2.331, p < 0.05). Thus, this relationship is fully *mediated* by *SMF* and *CSMU*.

Table 9 Test results of mediation effect

	Total Effect			Direct Effect			Specific Ind. effect			*Mediation*
Mediation paths	β	t	**P**	β	t	p	β	t	p	
FOMO → CSMU → SMF → Academic burnout	0.381	7.096	0.000***	0.102	1.860	0.063	0.154	4.856	0.000**	Full
FOMO → SMF → Academic burnout	0.381	7.096	0.000***	0.102	1.860	0.063	0.101	2.331	0.020*	Full
CSMU -> SMF -> Academic burnout	0.334	6.727	0.000***	0.068	1.030	0.303	0.334	6.727	0.000***	Full
FOMO -> CSMU -> SMF	0.392	7.047	0.000***	0.162	2.445	0.015	0.249	5.391	0.000***	Partial

*Significant at $p < 0.05$; **Significant at $p < 0.01$; ***Significant at $p < 0.001$

4.7 Multigroup analysis

In this section, we look at the notable variance between the gender, region, and education level in terms of the effect of FOMO, CSMU, SMI and SMF on Academic burnout.

4.7.1 Gender

The results show that there were no meaningful distinctions between the groups. The following is a

Table 10 Multigroup analysis for Gender

Relationships	Difference (Male - Female)	p value
CSMU -> Academic Burnout	0.255	0.05
FOMO -> Academic Burnout	-0.068	0.3
SMF -> Academic Burnout	-0.022	0.41
SMI -> Academic Burnout	-0.098	0.253

4.7.2 Region

The findings reveal that all the differences were insignificant except for (SMI -> Academic Burnout) and it was stronger in Asia than in Africa. Below is a breakdown of the findings from the various groupings used in the analysis.

Table 11 Multigroup analysis for region

Relationships	Difference (African - Asian)	p value
CSMU -> Academic Burnout	0.254	0.053
FOMO -> Academic Burnout	0.037	0.379
SMF -> Academic Burnout	-0.032	0.391
SMI -> Academic Burnout	-0.356	0.003

4.7.3 Education

The findings reveal that all the differences were insignificant. Here is a quick rundown of what we learned from our multi-group study.

Table 12 Multigroup analysis for Education

Relationships	Difference (Graduate - Undergraduate)	p value
CSMU -> Academic Burnout	0.157	0.246
FOMO -> Academic Burnout	0.018	0.479
SMF -> Academic Burnout	-0.171	0.163
SMI -> Academic Burnout	-0.107	0.339

4.8 Moderation effects

This paper also investigates the moderating roles of age. The moderating effect was examined using the standards set out by Kline and Dunn (2000). In this approach, every component of the model (i.e., FOMO, CSMU, SMI and SMF) was multiplied with age. The resulting moderator constructs were established by this procedure. (Age x CSMU -> Academic Burnout; Age x SMF -> Academic Burnout; Age x SMI -> Academic Burnout; and Age x FOMO -> Academic Burnout). As revealed, the moderating effect of age has no significant impact on the relationship between the constructs.

Table 13 Test results of moderation effect

Moderation effect	Std beta (β)	t	p-value
Age x CSMU -> Academic Burnout	-0.048	0.812	0.417
Age x SMF -> Academic Burnout	0.049	0.892	0.373
Age x SMI -> Academic Burnout	-0.041	0.671	0.502
Age x FOMO -> Academic Burnout	0.01	0.179	0.858

***Significant at *p < 0.001*

Chapter 5 Discussions, Implications and Recommendations

5.1 Introduction

This study aimed to investigate the potential influence of FOMO on academic burnout as mediated by social media. We found an insignificant direct relation between FOMO and academic burnout. However, the analysis has confirmed the assumption that the relationship between FOMO and Academic burnout is fully mediated by social media. The proposed associations were tested to enhance the current understanding of the consequences of FOMO and some of the antecedence of academic burnout related to social media. 8 hypotheses were tested positing direct effects, of these, seven were fully supported, and only one was not.
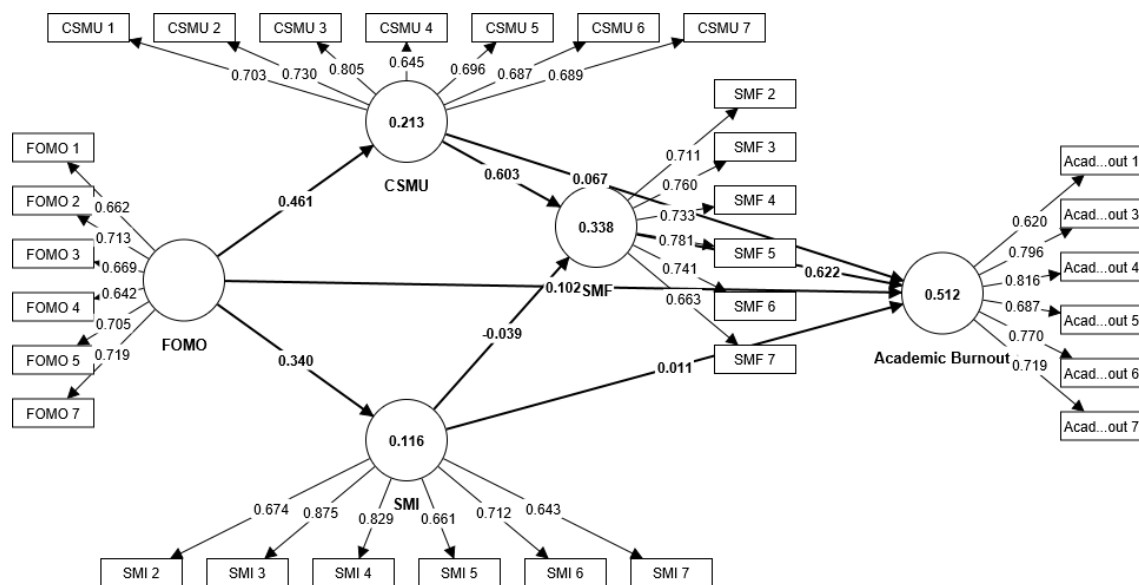

Figure 7 Results of structural model

5.2 Discussions related to research hypotheses

The study utilized Structural Equation Modeling (SEM) to evaluate the present study hypotheses and to enhance the reliability and validity of the research model. From the results we can definitely state that all hypotheses were supported except one.

5.2.1 H1: FOMO predicts compulsive social media use.

The study found that H1 was supported, indicating a positive correlation between Fear of Missing Out (FoMO) and compulsive social media usage. The findings of our study are consistent with prior research that has established a correlation between FoMO and compulsive social media usage, as demonstrated by Richter (2018) and Wegmann et al. (2017). Our suggestion is that the Fear of Missing Out (FoMO) may trigger a compulsive behavior of using social media, irrespective of the

platform's features or attributes. Our findings highlight the generalizability of of Kardefelt-Winther (2014) theory, which posits that individuals may engage in compulsive social media use as a means of steering clear of FoMO. The findings of our study validate the TCIU as a sturdy theoretical foundation for subsequent studies on FoMO, irrespective of the specific social media issue that is being studied.

5.2.2 H2: FOMO will be associated with academic burnout.

It investigated whether FoMO was positively associated with academic burnout. To our knowledge no paper has researched this relation, a scholarly article has investigated the correlation between social media constructs and job burnout. While the prior literature establishing this link, our study partially supports these findings, our original findings indicate that one of the links we examined is insignificant. Because little empirical evidence exists for this association, further examination is necessary before generalizing our results.

5.2.3 H3: FOMO is positively associated with social media intensity.

No significant correlation was found between Compulsive social media use and academic burnout.

5.2.4 H4: Compulsive media use predicts social media fatigue.

Our findings completely confirm H4, which tested the hypothesis that compulsive social media use accurately predicts SMF. This fits up with what is already known about the correlation between excessive social media use and negative effects such emotional fatigue, anxiety, depression, and a weakened mental capacity (see, for example, (Elhai et al., 2016)). Our results corroborate those of a previous study (Dhir et al., 2018) that found that excessive usage of social media is associated with SMF. Our research is consistent with the (TCIU) hypothesis (Kardefelt-Winther, 2014), which posits that excessive use of technology (specifically social media in this study) as a coping mechanism for negative emotions (such as FoMO in our investigation) can lead to adverse consequences such as SMF.

5.2.5 H5: Social media intensity predicts social media fatigue.

There is no significant correlation between social media intensity and social media fatigue. This statement contradicts the information presented in the literature (Malik et al., 2021).

5.2.6 H6: Compulsive social media use is positively associated with academic burnout.

Academic burnout is not significantly related to compulsive social media use. However, this relationship is fully mediated by social media fatigue.

5.2.7 H7: Social media intensity is positively associated with academic burnout.

Academic burnout is not significantly related to social media intensity. The findings of the mediation analysis showed that social media fatigue failed to mediate analysis the association between SMI and academic burnout. It can be posited, samples who engage compulsively have a stronger sense of academic burnout than those the use it intensely. A possible explanation could be that, those who are more intense see their fellows achieving, which motivates them to more eagerly engage in their study.

5.2.8 H8: Social media fatigue is positively associated with academic burnout.

We found significant results for H9. These results are consistent with prior findings, which has indicated a positive correlation between social media fatigue and academic burnout. The results indicate that social media fatigue may be a contributing factor to a decline in academic performance.

5.2.9 H9: FOMO is positively associated with social media fatigue.

We found significant results for H9. The findings presented are in line with previous research, indicating a positive correlation between FoMO and fatigue, as reported by Dhir et al. (2018), and (Tandon et al., 2021). The results of the mediation analysis indicate that there is a partial mediating effect of compulsive social media use on the relationship between FoMO and SMF. The study underscores the intricate relationship between FoMO and social media-related outcomes, and underscores the significance of acknowledging the impact of other potential mediating variables.

5.3 Implications

Both theoretical and practical insights have been gleaned from the study's findings. First, the research has made a major contribution to the development of concepts, the initial and essential phase in the procedure of producing novel insights in any domain. This procedure could prove valuable in introducing debate questions and concerns related to a term that has been vaguely or inadequately defined thus far, into the realm of scholarly discourse. Future progress in our comprehension of FOMO and academic burnout may benefit from the discussions and studies that surround this topic.

5.3.1 Theoretical implications

From a theoretical perspective, the current study broadens our understanding of the effects of FOMO by identifying its link to academic burnout via social media. Our research considerably contributes to the growing body of knowledge about the direct negative behavioral and psychological effects of FOMO, as previous studies have mostly focused on FOMO as an indirect

influencer (Tandon et al., 2021). Meanwhile, our results add to the existing literature on the drawbacks of social media and, more narrowly, on fear of missing out and the causes of academic burnout. To the best of our knowledge, we are also the first to investigate the possible connection between FOMO and academic burnout.

The findings support SDT as a sound theory to support further investigation into FOMO and social media. The findings of our study indicate that these theories have the potential to serve as valuable tools for future research endeavors aimed at exploring the behavioral expressions of social media users across diverse contexts.

By applying the theory to look at different facets of social media, researchers might increase the generalizability of the hypothesis. Scholars may be able to gain a deeper grasp of issues like social media-induced FOMO and academic burnout if they employ these theories in their research.

The results offer some evidence for how FOMO and academic burnout relate in the setting of social media, which enriches the literature in both FOMO and academic burnout. Furthermore, it provides an empirical framework for investigating the many mediating effects of SMI, SMF and CSMU. This study's primary contribution is to suggest a research model that attempts to demonstrate a link between FOMO and academic burnout and was effective there. Further research is required to investigate the potential of screening, prevention, and intervention options. Therefore, screening, prevention, and intervention are all potential avenues for further investigation.

5.3.2 Practical implications

The study's findings have important practical ramifications for legislators, users, parents and guardians of users, and administrators. First and foremost, young social media users and their parents and guardians should educate themselves about the risks associated with using social media platforms. If parents and guardians were better informed with this kind of knowledge, they might be able to take preventative precautions. Additionally, parents and guardians should promote open communication with the children and teenagers under their supervision to encourage them to come forward if they feel any negative effects from media use.

Administrators and developers may acquire knowledge regarding FOMO, information overload, compulsive social media utilization, and social media intensity. These factors may contribute to social media fatigue and academic burnout among young users.

Third, the study findings will benefit psychologists, social workers, and therapists. They can use the data, notably about FOMO, SMF, and academic fatigue, to develop novel interventions, screening

approaches, and therapies for young students. Individuals in the age groups of young adults, adolescents, and pre-adolescents, who exhibit heightened susceptibility to the adverse impacts of social media, require access to appropriate interventions.

We strongly encourage policymakers to leverage the findings of our study and formulate strategies to mitigate the negative impact of these phenomena within educational institutions and possibly at community level. Example would be, instructional guidance as it significantly improves behavioral engagement for student (A. Al Mamun & Lawrie, 2021) Having knowledge of the potential drawbacks associated with social media usage can assist users in effectively managing their online activities, leading to more enjoyable social interactions while also maintaining productivity in their academic pursuits.

5.4 Limitations and future research directions

Similar to other empirical studies, the current study has certain limitations that could be further investigated in future research. First, because our study was cross-sectional, it is therefore not appropriate to draw conclusions about causation between the variables we examined or show that there was a specific point in time when any given associations existed. Such studies would be unable to identify any shifts in these relationships over time. Cross-sectional mediation, on the other hand, can yield useful insights into the relationship of variables if it is grounded in theory and partially supported by empirical evidence.

Second, the sample though enough for the analysis, subsequent research endeavors may consider testing the model utilizing a more extensive dataset to enhance its reliability and validity.

Third, we use self-reported measures It is possible that users may be overwhelm without realizing it.

Future research should investigate the point at which users reach a tipping point and begin to experience academic burnout. Subsequent investigations may employ both longitudinal and experimental methodologies to ascertain potential alterations in the character of the examined relationships over a period of time and determine the causal relationship between the variables under scrutiny in this multiple mediation model. Furthermore, qualitative research designs have the potential to identify additional antecedents and consequences of Fear of Missing Out (FOMO) and academic burnout.

Conclusions

People feel their lives are too busy to include beneficial activities like exercise, reading, and other healthy activities, though excessive data is reaching them from social media to be consumed and understood, people still try to absorb as much as possible. This highlights the significance of balancing user engagement with their autonomy in performing activities and the manner in which they choose to do them about all times. FOMO and social media may be "double-edged swords" that stakeholders must handle carefully. These capabilities create extremely immersive experiences, but they may also cause the user to feel a loss of control and become aware of the disruptive impacts of such immersion on other processes that should take priority, such as their study. Fatigue and academic burnout may kick in, resulting in a self-imposed activity which may render counterproductive.

This paper presents the proposed model, as outlined in Chapter 3, which was developed based on prior research and subsequently evaluated. The evaluation of the model was successfully conducted in this paper. The objective of this study is to expand upon prior research on the relationship between Fear of Missing Out (FOMO) and academic burnout. Specifically, this study seeks to examine the mediating influence of Social Media Intensity (SMI), Social Media Fatigue (SMF), and Compulsive Social Media Use (CSMU). The Social Media Fatigue (SMF) has been identified as the most reliable predictor of academic burnout, as it accounts for a greater proportion of the total explained variance. Individuals exhibiting higher levels of SMF demonstrated a statistically significant increase in academic burnout. Furthermore, the social media fatigue (SMF) completely mediates the correlation between fear of missing out (FOMO) and academic burnout. These results corroborate previous research findings, providing further evidence of the widespread impact of FOMO in exacerbating problematic social media usage. Furthermore, in accordance with the existing literature, it was found that females reported a higher impact on usage and resulting outcomes. This study offers further empirical evaluation of the impact of socially motivated factors of Fear of Missing Out (FOMO). Furthermore, in accordance with the existing literature, females indicated a higher effect on usage and resulting outcomes. The comprehensive analysis presented in this paper offers a significant perspective on the model and validates the underlying theories.

References

Abel, J. P., Buff, C. L., & Burr, S. A. (2016). Social Media and the Fear of Missing Out: Scale Development and Assessment. *Journal of Business & Economics Research (JBER)*, *14*(1), 33–44. https://doi.org/10.19030/jber.v14i1.9554

Abramowitz, J. S., Taylor, S., & McKay, D. (2009). Obsessive-compulsive disorder. In *The Lancet* (Vol. 374, Issue 9688, pp. 491–499). Elsevier B.V. https://doi.org/10.1016/S0140-6736(09)60240-3

Adams, S. K., Williford, D. N., Vaccaro, A., Kisler, T. S., Francis, A., & Newman, B. (2017). The young and the restless: Socializing trumps sleep, fear of missing out, and technological distractions in first-year college students. *International Journal of Adolescence and Youth*, *22*(3), 337–348. https://doi.org/10.1080/02673843.2016.1181557

Al Mamun, A., & Lawrie, G. (2021). *Factors affecting student behavioural engagement in an inquiry-based online learning environment*. https://doi.org/10.21203/rs.3.rs-249144/v1

Al Mamun, M. A., Lawrie, G., & Wright, T. (2016). Student Behavioural Engagement in Self-Paced Online Learning. In S. Barker, S. Dawson, A. Pardo, & C. Colvin (Eds.), *Show Me the Learning* (pp. 381–386). ASCILITE.

Aladwani, A. M., & Almarzouq, M. (2016). Understanding compulsive social media use: The premise of complementing self-conceptions mismatch with technology. *Computers in Human Behavior*, *60*, 575–581. https://doi.org/10.1016/j.chb.2016.02.098

Alinejad, V., Parizad, N., Yarmohammadi, M., & Radfar, M. (2022). Loneliness and academic performance mediates the relationship between fear of missing out and smartphone addiction among Iranian university students. *BMC Psychiatry*, *22*(1). https://doi.org/10.1186/s12888-022-04186-6

Alt, D. (2015). College students' academic motivation, media engagement and fear of missing out. *Computers in Human Behavior*, *49*, 111–119. https://doi.org/10.1016/j.chb.2015.02.057

Alt, D. (2018). Students' Wellbeing, Fear of Missing out, and Social Media Engagement for Leisure in Higher Education Learning Environments. *Current Psychology*, *37*(1), 128–138. https://doi.org/10.1007/S12144-016-9496-1/FIGURES/3

Apaolaza, V., Hartmann, P., D'Souza, C., & Gilsanz, A. (2019). Mindfulness, compulsive mobile social media use, and derived stress: The mediating roles of self-esteem and social anxiety. *Cyberpsychology, Behavior, and Social Networking*, *22*(6), 388–396. https://doi.org/10.1089/cyber.2018.0681

Asad, S., Mamun, M. A. Al, & Clement, C. K. (2012). The Effect of Social Networking Sites to the Lifestyles of Teachers and Students in Higher Educational Institutions. *International Journal of Basic and Applied Sciences*, *1*(4). https://doi.org/10.14419/ijbas.v1i4.374

Baker, Z. G., Krieger, H., & LeRoy, A. S. (2016). Fear of missing out: Relationships with depression, mindfulness, and physical symptoms. *Translational Issues in Psychological Science*, *2*(3), 275–282. https://doi.org/10.1037/tps0000075

Baumeister, R. F., & Leary, M. R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. In *Psychological Bulletin* (Vol. 117, Issue 3).

Beyens, I., Frison, E., & Eggermont, S. (2016). "I don't want to miss a thing": Adolescents' fear of missing out and its relationship to adolescents' social needs, Facebook use, and Facebook related stress. *Computers in Human Behavior*, *64*, 1–8. https://doi.org/10.1016/J.CHB.2016.05.083

Blackwell, D., Leaman, C., Tramposch, R., Osborne, C., & Liss, M. (2017). Extraversion, neuroticism, attachment style and fear of missing out as predictors of social media use and addiction. *Personality and Individual Differences*, *116*, 69–72. https://doi.org/10.1016/j.paid.2017.04.039

Bright, L. F., Kleiser, S. B., & Grau, S. L. (2015). Too much Facebook? An exploratory examination of social media fatigue. *Computers in Human Behavior*, *44*, 148–155. https://doi.org/10.1016/j.chb.2014.11.048

Budnick, C. J., Rogers, A. P., & Barber, L. K. (2020). The fear of missing out at work: Examining costs and benefits to employee health and motivation. *Computers in Human Behavior*, *104*. https://doi.org/10.1016/j.chb.2019.106161

Cadime, I., Pinto, A. M., Lima, S., Rego, S., Pereira, J., & Ribeiro, I. (2016). Well-being and academic achievement in secondary school pupils: The unique effects of burnout and engagement. *Journal of Adolescence*, *53*, 169–179. https://doi.org/10.1016/j.adolescence.2016.10.003

Carbonell, X., Chamarro, A., Oberst, U., Rodrigo, B., & Prades, M. (2018). Problematic use of the internet and smartphones in university students: 2006–2017. *International Journal of Environmental Research and Public Health*, *15*(3). https://doi.org/10.3390/ijerph15030475

Charoensukmongkol, P. (2016). Mindful Facebooking: The moderating role of mindfulness on the relationship between social media use intensity at work and burnout. *Journal of Health Psychology*, *21*(9), 1966–1980. https://doi.org/10.1177/1359105315569096

Choi, J., & Meyer, J. (2013). *The Independence of Burnout and Engagement: Incremental Predictive Validity and Construct Reappraisal as Different Combinations of the Same Components (Energy and Evaluation)*. https://ir.lib.uwo.ca/etd://ir.lib.uwo.ca/etd/1603

Chou, H. T. G., & Edge, N. (2012). "They are happier and having better lives than I am": The impact of using facebook on perceptions of others' lives. *Cyberpsychology, Behavior, and Social Networking*, *15*(2), 117–121. https://doi.org/10.1089/cyber.2011.0324

Deci, E. L., & Ryan, R. M. (2000). *The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior*.

Desjarlais, M., & Willoughby, T. (2010). A longitudinal study of the relation between adolescent boys and girls' computer use with friends and friendship quality: Support for the social compensation or the rich-get-richer hypothesis? *Computers in Human Behavior*, *26*(5), 896–905. https://doi.org/10.1016/j.chb.2010.02.004

Dhir, A., Kaur, P., Chen, S., & Lonka, K. (2016). Understanding online regret experience in Facebook use - Effects of brand participation, accessibility & problematic use. *Computers in Human Behavior*, *59*, 420–430. https://doi.org/10.1016/j.chb.2016.02.040

Dhir, A., Yossatorn, Y., Kaur, P., & Chen, S. (2018). Online social media fatigue and psychological wellbeing—A study of compulsive use, fear of missing out, fatigue, anxiety and depression. *International Journal of Information Management*, *40*, 141–152. https://doi.org/10.1016/j.ijinfomgt.2018.01.012

Dolce, P., Esposito Vinzi, V., & Lauro, C. (2017). Predictive path modeling through PLS and other component-based approaches: Methodological issues and performance evaluation. In H. Latan & R. Noonan (Eds.), *Partial Least Squares Path Modeling: Basic Concepts, Methodological Issues and Applications* (pp. 153–172). Springer International Publishing. https://doi.org/10.1007/978-3-319-64069-3_7/FIGURES/4

Duckworth, A. L., Grant, H., Loew, B., Oettingena, G., & Gollwitzera, P. M. (n.d.). *Self-regulation strategies improve self-discipline in adolescents: benefits of mental contrasting and implementation intentions*. http://nbn-resolving.de/urn:nbn:de:bsz:352-171054

Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. *Computers in Human Behavior*, *63*, 509–516. https://doi.org/10.1016/J.CHB.2016.05.079

Evers, K., Chen, S., Rothmann, S., Dhir, A., & Pallesen, S. (2020). Investigating the relation among disturbed sleep due to social media use, school burnout, and academic performance. *Journal of Adolescence*, *84*, 156–164. https://doi.org/10.1016/j.adolescence.2020.08.011

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. In *Source: Journal of Marketing Research* (Vol. 18, Issue 1).

Gaudreau, P., Miranda, D., & Gareau, A. (2014). Canadian university students in wireless classrooms: What do they do on their laptops and does it really matter? *Computers & Education*, *70*, 245–255. https://doi.org/https://doi.org/10.1016/j.compedu.2013.08.019

Gerber, M., Lang, C., Feldmeth, A. K., Elliot, C., Brand, S., Holsboer-Trachsler, E., & Pühse, U. (2015). Burnout and mental health in swiss vocational students: The moderating role of physical activity. *Journal of Research on Adolescence*, *25*(1), 63–74. https://doi.org/10.1111/JORA.12097

Hair, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use "PLS-SEM or CB-SEM: updated guidelines on which method to use." In *Organizational Research Methods, MIS Quarterly, and International Journal* (Vol. 1, Issue 2).

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In *European Business Review* (Vol. 31, Issue 1, pp. 2–24). Emerald Group Publishing Ltd. https://doi.org/10.1108/EBR-11-2018-0203

Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management and Data Systems*, *117*(3), 442–458. https://doi.org/10.1108/IMDS-04-2016-0130

Hair, J., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Han, B. (2018). Social Media Burnout: Definition, Measurement Instrument, and Why We Care. *Journal of Computer Information Systems*, *58*(2), 122–130. https://doi.org/10.1080/08874417.2016.1208064

Han, R., Xu, J., Ge, Y., & Qin, Y. (2020). The Impact of Social Media Use on Job Burnout: The Role of Social Comparison. *Frontiers in Public Health*, *8*. https://doi.org/10.3389/fpubh.2020.588097

Hattingh, M., Dhir, A., Ractham, P., Ferraris, A., & Yahiaoui, D. (2022a). Factors mediating social media-induced fear of missing out (FoMO) and social media fatigue: A comparative study among Instagram and Snapchat users. *Technological Forecasting and Social Change*, *185*. https://doi.org/10.1016/j.techfore.2022.122099

Hattingh, M., Dhir, A., Ractham, P., Ferraris, A., & Yahiaoui, D. (2022b). Factors mediating social media-induced fear of missing out (FoMO) and social media fatigue: A comparative study among Instagram and Snapchat users. *Technological Forecasting and Social Change*, *185*. https://doi.org/10.1016/j.techfore.2022.122099

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hirschman, E. C. (1992). *The Consciousness of Addiction: Toward a General Theory of Compulsive Consumption*.

James, T. L., Lowry, P. B., Wallace, L., & Warkentin, M. (2017). The Effect of Belongingness on Obsessive-Compulsive Disorder in the Use of Online Social Networks. *Journal of Management Information Systems*, *34*(2), 560–596. https://doi.org/10.1080/07421222.2017.1334496

Junco, R. (2012). The relationship between frequency of Facebook use, participation in Facebook activities, and student engagement. *Computers and Education*, *58*(1), 162–171. https://doi.org/10.1016/j.compedu.2011.08.004

Kaplan, D. (2001). Structural Equation Modeling. In N. J. Smelser & P. B. Baltes (Eds.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 15215–15222). Pergamon. https://doi.org/https://doi.org/10.1016/B0-08-043076-7/00776-2

Kardefelt-Winther, D. (2014). A conceptual and methodological critique of internet addiction research: Towards a model of compensatory internet use. *Computers in Human Behavior*, *31*(1), 351–354. https://doi.org/10.1016/j.chb.2013.10.059

Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, *25*(1), 79–93. https://doi.org/10.1080/02673843.2019.1590851

Kline, T. J. B., & Dunn, B. (2000). Analysis of interaction terms in structural equation models: A non-technical demonstration using the deviation score approach. *Canadian Journal of Behavioural Science*, *32*(2), 127–132. https://doi.org/10.1037/H0087107

Klobas, J. E., McGill, T. J., Moghavvemi, S., & Paramanathan, T. (2018). Compulsive YouTube usage: A comparison of use motivation and personality effects. *Computers in Human Behavior*, *87*, 129–139. https://doi.org/10.1016/j.chb.2018.05.038

Kuhlemeier, H., & Hemker, B. (2007). The impact of computer use at home on students' Internet skills. *Computers and Education*, *49*(2), 460–480. https://doi.org/10.1016/j.compedu.2005.10.004

Kwon, E., English, A. E., & Bright, L. F. (n.d.). Social Media Never Sleeps: Antecedents and Consequences of Social Media Fatigue among Professional Content Creators. In *The Journal of Social Media in Society Fall* (Vol. 2020, Issue 2).

Lawrie, G. A., Schultz, M., Bailey, C. H., Al Mamun, Md. A., Micallef, A. S., Williams, M., & Wright, A. H. (2016). Development of Scaffolded Online Modules to Support Self-Regulated Learning in Chemistry Concepts. In M. Schultz, S. Schmid, & T. Holme (Eds.), *ACS Symposium Series* (Vol. 1235, Issue 1235, pp. 1–21). American Chemical Society. https://doi.org/10.1021/bk-2016-1235.ch001

Lee, A. R., Son, S. M., & Kim, K. K. (2016). Information and communication technology overload and social networking service fatigue: A stress perspective. *Computers in Human Behavior*, *55*, 51–61. https://doi.org/10.1016/j.chb.2015.08.011

Lim, M. S., & Choi, S. B. (2017). Stress caused by social media network applications and user responses. *Multimedia Tools and Applications*, *76*(17), 17685–17698. https://doi.org/10.1007/s11042-015-2891-z

Luqman, A., Cao, X., Ali, A., Masood, A., & Yu, L. (2017). Empirical investigation of Facebook discontinues usage intentions based on SOR paradigm. *Computers in Human Behavior*, *70*, 544–555. https://doi.org/10.1016/j.chb.2017.01.020

Malik, A., Dhir, A., Kaur, P., & Johri, A. (2021). Correlates of social media fatigue and academic performance decrement: A large cross-sectional study. *Information Technology and People*, *34*(2), 557–580. https://doi.org/10.1108/ITP-06-2019-0289

Manago, A. M., Monique Ward, L., Lemm, K. M., Reed, L., & Seabrook, R. (2015). Facebook involvement, objectified body consciousness, body shame, and sexual assertiveness in college women and men. *Sex Roles*, *72*(1), 1–14. https://doi.org/10.1007/s11199-014-0441-1

Manca, S., & Ranieri, M. (2016). Facebook and the others. Potentials and obstacles of Social Media for teaching in higher education. *Computers and Education*, *95*, 216–230. https://doi.org/10.1016/j.compedu.2016.01.012

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2000). *JOB BURNOUT*. www.annualreviews.org

Meerkerk, G.-J. (Gert-J., & Basement Grafische Producties). (2007). *Pwned by the internet : explorative research into the causes and consequences of compulsive internet use*. IVO [nstituut voor Onderzoek naar Leefwijzen & Verslaving].

Moreau, A., Laconi, S., Delfour, M., & Chabrol, H. (2015). Psychopathological profiles of adolescent and young adult problematic Facebook users. *Computers in Human Behavior*, *44*, 64–69. https://doi.org/10.1016/j.chb.2014.11.045

Nteveros, A., Kyprianou, M., Artemiadis, A., Charalampous, A., Christoforaki, K., Cheilidis, S., Germanos, O., Bargiotas, P., Chatzittofis, A., & Zis, P. (2020). Burnout among medical students in Cyprus: A cross-sectional study. *PLOS ONE*, *15*(11), e0241335. https://doi.org/10.1371/journal.pone.0241335

Oberst, U., Wegmann, E., Stodt, B., Brand, M., & Chamarro, A. (2017). Negative consequences from heavy social networking in adolescents: The mediating role of fear of missing out. *Journal of Adolescence*, *55*(1), 51–60. https://doi.org/10.1016/j.adolescence.2016.12.008

Pradhan, S. (2022). Social network fatigue: revisiting the antecedents and consequences. *Online Information Review*, *46*(6), 1115–1131. https://doi.org/10.1108/OIR-10-2020-0474

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, *29*(4), 1841–1848. https://doi.org/10.1016/j.chb.2013.02.014

Qiao, H., & Schaufeli, W. B. (2011). The Convergent Validity of Four Burnout Measures in a Chinese Sample: A Confirmatory Factor-Analytic Approach. *Applied Psychology*, *60*(1), 87–111. https://doi.org/10.1111/j.1464-0597.2010.00428.x

Qutishat, M., & Sharour, L. A. (2019). Relationship between fear of missing out and academic performance among omani university students: A descriptive correlation study. *Oman Medical Journal*, *34*(5), 404–411. https://doi.org/10.5001/omj.2019.75

Ravindran, T., Chua, A. Y. K., & Goh, D. H. L. (2013). Characteristics of social network fatigue. *Proceedings of the 2013 10th International Conference on Information Technology: New Generations, ITNG 2013*, 431–438. https://doi.org/10.1109/ITNG.2013.66

Renau, V., Gil, F., Oberst, U., & Carbonell, X. (2015). Internet and Mobile Phone Addiction. In *Encyclopedia of Mobile Phone Behavior* (pp. 807–817). IGI Global. https://doi.org/10.4018/978-1-4666-8239-9.ch066

Roberts, J. A., & David, M. E. (2020). The Social Media Party: Fear of Missing Out (FoMO), Social Media Intensity, Connection, and Well-Being. *International Journal of Human–Computer Interaction*, *36*(4), 386–392. https://doi.org/10.1080/10447318.2019.1646517

Saidu, M. K., & Al Mamun, M. A. (2022). Exploring the Factors Affecting Behavioural Intention to Use Google Classroom: University Teachers' Perspectives in Bangladesh and Nigeria. *TechTrends*, *66*(4), 681–696. https://doi.org/10.1007/s11528-022-00704-1

Salmela-Aro, K., Savolainen, H., & Holopainen, L. (2009). Depressive symptoms and school burnout during adolescence: Evidence from two cross-lagged longitudinal studies. *Journal of Youth and Adolescence*, *38*(10), 1316–1327. https://doi.org/10.1007/s10964-008-9334-3

Sanders, G. S., Baron, R. S., & Moore, D. L. (1978). Distraction and social comparison as mediators of social facilitation effects. *Journal of Experimental Social Psychology*, *14*(3), 291–303. https://doi.org/https://doi.org/10.1016/0022-1031(78)90017-3

Sarstedt, M., & Cheah, J. H. (2019). Partial least squares structural equation modeling using SmartPLS: a software review. In *Journal of Marketing Analytics* (Vol. 7, Issue 3, pp. 196–202). Palgrave Macmillan Ltd. https://doi.org/10.1057/s41270-019-00058-3

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial Least Squares Structural Equation Modeling. In *Handbook of Market Research* (pp. 1–47). Springer International Publishing. https://doi.org/10.1007/978-3-319-05542-8_15-2

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, *25*(3), 293–315. https://doi.org/10.1002/job.248

Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and Engagement in University Students. *Journal of Cross-Cultural Psychology*, *33*(5), 464–481. https://doi.org/10.1177/0022022102033005003

Schneider, A. M. (n.d.). *Title: Investigation of the Fear of Missing Out and the Connection between Academic Motivation, Perceived Stress, and Social Media Use*.

Schouten, A. P., Valkenburg, P. M., & Peter, J. (2007). Precursors and underlying processes of adolescents' online self-disclosure: Developing and testing an "internet-attribute-perception" model. *Media Psychology*, *10*(2), 292–315. https://doi.org/10.1080/15213260701375686

Scott, H., & Woods, H. C. (2018). Fear of missing out and sleep: Cognitive behavioural factors in adolescents' nighttime social media use. *Journal of Adolescence*, *68*(1), 61–65. https://doi.org/10.1016/j.adolescence.2018.07.009

Shen, Y., Zhang, S., & Xin, T. (n.d.). *Extrinsic academic motivation and social media fatigue: Fear of missing out and problematic social media use as mediators*. https://doi.org/10.1007/s12144-020-01219-9/Published

Shin, J., & Shin, M. (2016). To Be Connected or Not to Be Connected? Mobile Messenger Overload, Fatigue, and Mobile Shunning. *Cyberpsychology, Behavior, and Social Networking*, *19*(10), 579–586. https://doi.org/10.1089/cyber.2016.0236

Shmueli, G., Ray, S., Velasquez Estrada, J. M., & Chatla, S. B. (2016). The elephant in the room: Predictive performance of PLS models. *Journal of Business Research*, *69*(10), 4552–4564. https://doi.org/10.1016/j.jbusres.2016.03.049

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European Journal of Marketing*, *53*(11), 2322–2347. https://doi.org/10.1108/EJM-02-2019-0189

Slivar, B. (2001). *Psihološka obzorja / Horizons of Psychology* (Vol. 10).

Sullivan, G. M., & Feinn, R. (2012). Using Effect Size—or Why the P Value Is Not Enough . *Journal of Graduate Medical Education*, *4*(3), 279–282. https://doi.org/10.4300/jgme-d-12-00156.1

Tandoc, E. C., Ferrucci, P., & Duffy, M. (2015). Facebook use, envy, and depression among college students: Is facebooking depressing? *Computers in Human Behavior*, *43*, 139–146. https://doi.org/10.1016/j.chb.2014.10.053

Tandon, A., Dhir, A., Talwar, S., Kaur, P., & Mäntymäki, M. (2021). Dark consequences of social media-induced fear of missing out (FoMO): Social media stalking, comparisons, and fatigue. *Technological Forecasting and Social Change*, *171*, 120931. https://doi.org/https://doi.org/10.1016/j.techfore.2021.120931

Van Den Eijnden, R. J. J. M., Lemmens, J. S., & Valkenburg, P. M. (2016). The Social Media Disorder Scale: Validity and psychometric properties. *Computers in Human Behavior*, *61*, 478–487. https://doi.org/10.1016/j.chb.2016.03.038

van Deursen, A. J. A. M., van Dijk, J. A. G. M., & Peters, O. (2012). Proposing a Survey Instrument for Measuring Operational, Formal, Information, and Strategic Internet Skills. *International Journal of Human–Computer Interaction*, *28*(12), 827–837. https://doi.org/10.1080/10447318.2012.670086

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

Wang, P., Xie, X., Wang, X., Wang, X., Zhao, F., Chu, X., Nie, J., & Lei, L. (2018). The need to belong and adolescent authentic self-presentation on SNSs: A moderated mediation model involving FoMO and perceived social support. *Personality and Individual Differences*, *128*, 133–138. https://doi.org/https://doi.org/10.1016/j.paid.2018.02.035

Whelan, E., Islam, A. K. M. N., & Brooks, S. (2020). Applying the SOBC paradigm to explain how social media overload affects academic performance. *Computers & Education*, *143*, 103692. https://doi.org/https://doi.org/10.1016/j.compedu.2019.103692

Wolniewicz, C. A., Tiamiyu, M. F., Weeks, J. W., & Elhai, J. D. (2018). Problematic smartphone use and relations with negative affect, fear of missing out, and fear of negative and positive evaluation. *Psychiatry Research*, *262*, 618–623. https://doi.org/10.1016/J.PSYCHRES.2017.09.058

Wu, J. Y. (2017). The indirect relationship of media multitasking self-efficacy on learning performance within the personal learning environment: Implications from the mechanism of perceived attention problems and self-regulation strategies. *Computers and Education*, *106*, 56–72. https://doi.org/10.1016/j.compedu.2016.10.010

Yang, H. J. (2004). Factors affecting student burnout and academic achievement in multiple enrollment programs in Taiwan's technical-vocational colleges. *International Journal of Educational Development*, *24*(3), 283–301. https://doi.org/10.1016/j.ijedudev.2003.12.001

Zhang, Y., Liu, Y., Li, W., Peng, L., & Yuan, C. (2020). A study of the influencing factors of mobile social media fatigue behavior based on the grounded theory. *Information Discovery and Delivery*, *48*(2), 91–102. https://doi.org/10.1108/IDD-11-2019-0084

Zhu, Y., & Bao, Z. (2018). The role of negative network externalities in SNS fatigue: An empirical study based on impression management concern, privacy concern, and social overload. *Data Technologies and Applications*, *52*(3), 313–328. https://doi.org/10.1108/DTA-09-2017-0063

Appendix A

Assalamualiakum Dear Respondents,

I'm Muhammed Barry from the Gambia, a final year Master's student at the Islamic University of Technology. As part of my master's degree requirements, I need to conduct a research study to write a thesis.

The purpose of this survey is to reflect on the impact of Fear of Missing Out on important things/events of social media on Academic Burnout of the students.

The questionnaire can be completed in about 10 minutes. No personal data will be collected and thus your participation is completely anonymous in this survey. The data collected from this survey will be used for research purpose only. Your participation is voluntary, and we highly appreciate if you manage your time to complete this survey.

Appendix B

IMPACT OF FEAR OF MISSING OUT ON IMPORTANT THINGS IN SOCIAL MEDIA AND ITS RELATION TO ACADEMIC BURNOUT

Section 1: Demographic information

Nationality	……………………………..		
Age	…………………..		
Gender*	• Male	• Female	
University Type*	• Public	• Private	• International
Current Program	• PhD	• Masters • BSc	• Diploma

Section 2: Social Media

Below is a collection of statements about your everyday experience in Social Media. please indicate how true each statement is of your general experiences.

1. **I fear others have more rewarding experiences than me in social media.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

2. **I get worried when I find out my friends are having fun without me on social media.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

3. **I get anxious when I don't know what my friends are up to in the social media.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

4. **Sometimes, I wonder if I spend too much time keeping up with what is going on in social media.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

5. **It bothers me when I miss an opportunity to meet up with friends in social media.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

6. **When I have a good time, it is important for me to share the details or updating my status in social media.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

7. **When I miss out on a planned get-together in social media it bothers me.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

Section 3: Social Media Intensity

Please answer according to what really reflects your experiences rather than what you think your experiences should be. Please treat each item separately from every other item.

8.   **How many friends are you connected with in all social media platforms?**

1 = less than 100,

2 = 101 – 200,

3 = 201 – 300,

4 = 301 – 400,

5 = more than 400

9.   **In the past week, on average, approximately how many minutes per day have you spent on social media?**

1 = less than 30 minutes,

2= 31–60 minutes,

3 = 1–2 hours,

4 = 2–3 hours,

5 = more than 3 hours

10.   **I feel social media is part of my everyday activity.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

11.   **I feel social media has become part of my daily routine.**

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

12.   **I feel out of touch when I haven't logged onto social media for a while.**

Strongly Disagree   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

13.   **I feel I am part of the social media community.**

Strongly Disagree   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

14.   **I would be sorry if all the social media platforms are shut down.**

Strongly Disagree   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

Section 4: Compulsive Social Media Use

Please indicate your level of agreement with each of the following statements about social media use. Please check the suitable response.

_____

15.   **I have repeatedly made unsuccessful attempts to control, or stop my use of social media.**

Strongly Disagree   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

16.   **I feel restless, moody, or depressed when attempting to control or stop the use of social media.**

Strongly Disagree   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

17.   **I often risk the loss of my study time because of my excessive use of social media.**

Strongly Disagree   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

18.   **I spent a lot of time thinking about the use of social media.**

Strongly Disagree   *Disagree*   *Neutral*   *Agree*   *Strongly Agree*

19.   I felt a desire to use social media more and more.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

20.   I use social media in order to forget about my personal problems or feelings of helplessness, guilt, anxiety, or depression.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

21.   I check social media before sleeping and immediately after waking up.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

22.   I use social media while I am studying.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

Section 5: Academic Burnout Fatigue

For each question, please check how much you have felt or acted this way in the past two weeks.

_____

23.   I find it difficult to relax after continually using social media.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

24.   After a session of Social Media use, I feel fatigued.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

25.   Due to Social Media use, I feel exhausted.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

26.   After using social media, it takes effort to concentrate on my study.

27.   During Social Media use, I often feel too fatigued to perform other tasks well.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

28.   I often feel upset by the pressure of my study

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

29.   I often sleep badly because of study load, assignments, and quizzes.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

30.   The pressure of my study causes me problems to maintain relationships with my friends and family.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

31.   I feel a lack of motivation in my study-work and often think of giving up my studies.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

32.   I feel that I am losing interest in my study.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

33.   I am continually wondering whether my study has any meaning to my life.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

34.   I often have feelings of deficiency in my study.

Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

35.   I used to have higher expectations of my study than I do now.

Strongly Disagree   Disagree   Neutral   Agree   Strongly   Agree

Thank you for your valuable Time