Students' Social Media Use, Addiction Levels and its Perceived Impact on their Social Life: A Case of Copperbelt Colleges of Education, Zambia

BY

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AUTHOR'S DECLARATION

I, Harry Jordan Silomba, do hereby solemnly declare that this thesis represents my own work, except where otherwise acknowledged, and that it has never been previously submitted for a degree at the University of Zambia or any other university.

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APPROVAL

This thesis of **Harry Jordan Silomba** hereby approved as fulfilling the requirements for the award of the degree of Doctor of Philosophy in Educational Psychology by the University of Zambia.

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ABSTRACT

Social media has recently become an indistinguishable part of students' daily activities. It has continued to grow, connecting many students in previously impossible ways. A growing body of literature suggests that problematic social media use leads to various negative social life consequences. Despite this, very few studies of this nature have been undertaken in less developed countries like Zambia. As such, this study was born out of that contention to explore students' social media use, addiction levels, and perceived impacts on their social lives.

A quantitative, descriptive research survey based on the sample size of five hundred and seventy-nine (579) students drawn from three (3) public and three (3) private colleges of education on the Copperbelt was used in this study. Two sampling techniques were utilized namely, stratified random and simple random sampling. However, to provide an equal representation of students from each stratum, a proportionate stratified random sampling formula was used to select the specific number of respondents. The adapted, standardized Social Media Addiction Scale (SMAS), Depression Anxiety Stress Scale (DASS), and Pittsburgh Sleep Quality Index (PSQI) scales were used to collect data. Personnel and processes for adapting and modifying the standardized instruments were made available. To draw conclusions, data were analyzed by using the Statistical Package for Social Sciences (SPSS) to obtain statistical interpretations.

The results showed that Facebook and WhatsApp were the most popular social media platforms. It was also discovered that students were visiting social media platforms once or several times a day, and we're spending less than three hours and more than 30 minutes per visit daily. This tendency suggests that students spend a significant portion of their daily lives online. Besides it was found that the extend use of social media use was, consistent across the incorporated demographics. It was further discovered that students' motives of use were centered mainly on leisure gratifications (killing idle time; entertainment), social gratifications (connecting with others; facilitating interaction with friends; keeping up with what others are doing), and instrumental gratifications (information seeking, learning new things). The trends reflect students' strong incentives to pursue their inner and outer gratifications..

The study further showed that increased use of social media beyond a certain threshold is associated to students' social life challenges that include perceived symptoms of depression (rho = -0.158, p = 0.001), anxiety (rho = -0.099, p = 0.017), stress (rho = -0.160, p = 0.001) and Sleep deprivation (rho = -0.113, p = 0.006). However, the addiction and social life challenges, on the other hand, indicate a weak negative link. This entails that when social life impact overwhelms, a spike in online media's compulsion levels becomes evident and vice versa. Findings suggest that the relationship between addictive social media use and its impacts on students' lives is bidirectional. Thus, it may indicate that social media usage inhibits the possibility of both positive and negative impacts on students' lives.

Therefore, the study has concluded that the use of social media among students is relatively high and alarming owing to the evidence of the perceived impacts on their social lives. Results have a significant bearing on the implication for practice, policy, and theory. Thus, the timely prevention and detection of social media addiction and its impacts should be prioritized through awareness programs for students. College-based social media policies and regulations formulation should be highly considered. Further research has also been suggested.

DEDICATION

This thesis is dedicated to the loving memory of my late parents: My Father, Mr. Jordan Edward Silomba (Bashi Lucky). Dad, your smiles and motivation helped me to persevere and you were by far the best teacher I have ever had. My Mother, Mrs. Chilufya Kamfwa (Bana Lucky). Mom, I wish you knew how profoundly you planted the seeds of hard working in my life. With your special and uncommon heart, you have always held my spirits strong. Your untimely demise was the greatest pain and struggle I had to face on my academic journey, particularly when you said farewell to this world when I was in the first term of my 5th grade at the primary school.

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ACRONYMS AND ABBREVIATIONS

DASS	Depression Anxiety stress Scale
FoMO	Fear of Missing Out
MoGE	Ministry of general Education
PhD	Doctor of Philosophy
MSMDT	Media System Dependence Theory
PSQI	Pittsburgh Sleep Quality Index
RAT	Rational Addiction Theory
BFAS	Bergen Facebook Addiction Scale
BSMAS	Bergen Social Media Addiction Scale
SMAS	Social Media Addiction Scale
SPSS	Statistical Package for Social Sciences
TCZ	Teaching Council of Zambia
U & GT	Uses and Gratification Theory
WHO	World Health Organization
UNZA	University of Zambia

CHAPTER 1: Introduction

1.0 Overview

This chapter presents the background of the research, the statement of the problem and the purpose of the study. It also presents the study's objectives, research questions, significance, limitations, and delimitations. Furthermore, the chapter presents the operational definitions of the critical terms and lastly, the summary of the first chapter has been presented.

1.1 Background of the study

The field of social media is one of the fastest-growing areas of technological development globally. As such, it requires a better understanding of its progression to manipulate it. Boyd et al. (2007) define social media as forms of electronic communication (such as websites for social networking and blogging) through which individuals generate online content to share information, ideas, personal messages, and other content. Curtis (2013) looks at the term "social media" as an Internet site or platform where people interact freely, discuss information, and share ideas about each other and their lives.

Kaplan and Haenlein (2010) go into great detail about the concept of social media. They describe social media as a “group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 that allow the creation and exchange of user-generated content” (p. 61). Simultaneously, they distinguish social media sites such as Facebook or Twitter as Internet applications allowing users to create their online profiles, share various online content, that including messages, images, video, audio, and other files with their social media friends. This approach noticeably broadens the conceptualization of social media as a collection of Internet-based apps. Hence, this research joins many other academics in describing social media as a significant part of everyday interaction, which is the collective of online communication channels used for content-sharing and collaboration.

Social media scholars are undoubtedly divided regarding their perceptions of the singular source that led to social media evolution. While it took social media decades to gain recognition as a viable communication instrument, the pace at which social media technology has developed and advanced in recent years is difficult to comprehend. As it is known, any discussion of its

characteristics and innovations could be outdated within a month, and this constant change also affects research on social media.

Nevertheless, it is allegedly indicated that trace of its origin does not have a fixed year or a web portal as the point of origin (Kaplan & Haenlein, 2011; Obar et al., 2015). However, some social media professionals have attempted to piece together its background despite the gap. For example, some scholars have argued that social media is not a new concept and that it has undergone several changes since the dawn of human interaction (Obar et al., 2015). Some scholars indicate that social media footprints stretch far much deeper than one might imagine because humans are social creatures who need social interactions to maximize their well-being (Cramer & Inkster, 2017). Hence, interacting with friends across long distances has been a concern of humans for centuries.

Across centuries, the world has witnessed significant changes in the evolution of ways and tools responsible for sending and receiving information (Dhingra et al., 2019). Before technological advancement, information transmission was traditionally done through word-of-mouth networks and signals in the form of sound and smoke. The method has always been the most effective and trustworthy means of disseminating information. However, it has shifted from transmitting signals over a distance using smoke signals and drums in most parts of the world (Asante et al., 2013) to a more sophisticated model (Kircaburun et al., 2018). Currently, the field of communication is engulfed with the use of social media gadgets which have transformed the way information is obtained and sent in today's modern world.

Social media has expanded at a breakneck pace throughout the world, and numerous studies have found significant growth in social media accessibility and usage, notably in the early 2000s. For example, in 2001, an estimated number of 474 million people around the globe were connected to social media (Shaw & Gant, 2002). As of 2017, the number rapidly increased to 2.62 billion. Furthermore, 2018 statistics indicate that out of over 4 billion total world populations, 2.77 billion of the stated statistics use social media, while 2020 statistics showed 3.02 billion, as shown in figure 1 below. Besides, it is projected that the number may surge to almost 3.43 billion by 2023 (Statista, 2019; Global, 2019).

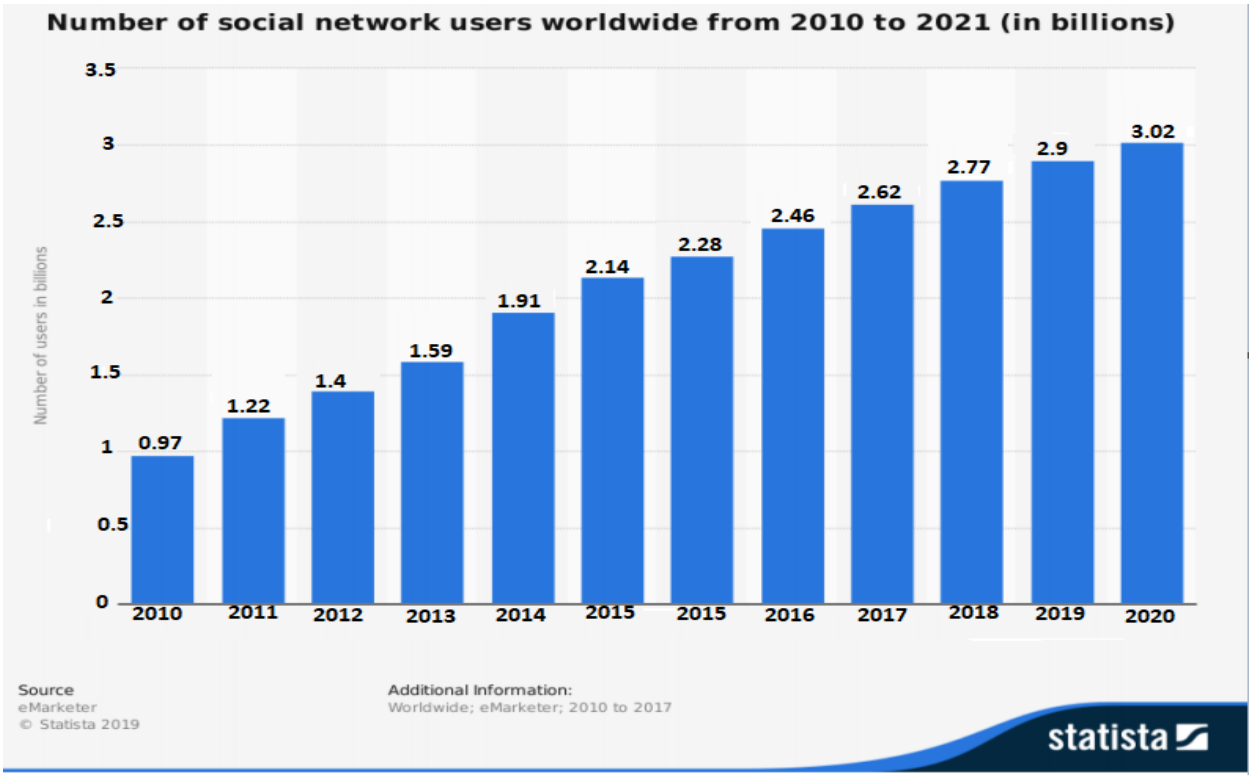

Figure 2: Number of social media usage globally (Statista, 2019)

Continental social media accessibility through Internet usage rates showed some differences across the globe. For instance, 2018 statistics showed that North America (87.9%), Europe (73.5%), and Australia (73.2%) were the regions where the Internet was widely used. South America and the Caribbean recorded usage of 55.9%. The Middle East recorded 52.2%, Asia recorded 40.2%, while Africa showed the least Internet usage rates of 28.6% (Internet World Stats, 2018). Conversely, the state of Internet connectivity in Africa has also demonstrated an increase from 29% in 2014 to 38% in 2019 (Mobile Internet Connectivity, 2020). These statistical figures indicate that social media has become part of human life. As such, the surge in numbers and the variations in the usage rates across the globe cannot stay unnoticed by academic social media researchers.

With respect to the local context, the Zambia Information and Communications Technology Authority (ZICTA) report discovered a steady growth in the adoption and use of social media platforms among the Zambian general populous (ZICTA, 2018). For example, Digital 2020 Zambia reports 4.43 million Internet clients in Zambia as of January 2020. Internet users in

Zambia increased by 595 thousand (+16%) between 2019 and 2020. Internet penetration in Zambia remained at 24% in January 2020. Besides, there were 2.30 million social media consumers in Zambia by January 2020. The statistical figure of social media users in Zambia surged by 360 thousand (+19%) between April 2019 and January 2020 (Kemp, 2020). Regarding social media penetration, researchers estimate that social media penetration was at 13% in January 2020 and that it is rising among Zambians, particularly the youth (Akakandelwa & Walubita, 2017; Kemp, 2020). This indicates that Zambia has a significant portion of its population using social media, worth studying.

As for Zambian mobile telecommunication firms, the report indicated that Mobile Telecommunications Network (MTN) is a leading Internet mobile service provider. It currently controls 45.5 percent of the data market, with Airtel (40.1 percent) and Zamtel (14.4 percent) trailing behind (ZICTA, 2018). The figures also indicate that Zambia's mobile phone penetration rate has reached 74.3 percent of the population, with 11.6 million subscribers out of about 15 million Zambians (ZICTA, 2018).

In terms of platforms popularity, Facebook is Zambia's most popular social networking site, followed by Pinterest, YouTube, and Twitter. Instagram and Tumblr record the least used (ZICTA, 2018). As advanced by social media stats (2018), the adoption and usage of different social media platforms are visibly rising, especially in urban Zambia. Perhaps, the increase in social media adoption, connectivity, and use could be attributed to the increasing affordability of more advanced mobile technologies and government-subsidized mobile data (ZICTA, 2018). Similarly, the growth could also be attributed to a geometric increase in social media connectivity and networking advancements from 2G, 3G, 4G, and the projected 5G mobile band strength by 2023 (Barreto et al., 2016). Undoubtedly, these services have primarily boosted social media usage in Zambia. However, such a social media use spike mandates that academics keep up with new advancements in social media adoption, especially since it is still one of the under-researched subjects, particularly among students in educational institutions (Akakandelwa & Walubita, 2017). Thus, more research-based evidence would be more valuable particularly for policy formulation and implementation on social media use patterns.

Given the foregoing, it could be indicated that the social media technology landscape is continuously evolving. Currently, it is doing so in the direction of increased mediated interaction. However, one of the demographics that have largely accepted social media technology into their lives is contemporary college-age students (Ahmer & Tanzil, 2018). The reason for this could be seen in their social media daily activities. For example, if a single person were to walk across selected Copperbelt colleges of education and other institutions in Zambia, particularly during lunch hours, and then locate a central, heavily trafficked location and take a picture. There would be many similarities among the images taken, despite the differences between such colleges. Interestingly, it would not be easy to take a photograph now without seeing technology in various forms. Unlike what used to happen two decades ago, a modern image would most likely show several students using headphones or earphones and chatting into or glancing at phones while walking. A laptop or tablet computer would most likely be seen if students were seated on the lawn or bench. If photos from different decades were arranged in a row, the spread of technology in today's photographs would be remarkable, posing enticing opportunities for academics to uncover the underlying intentions behind such technological engangements.

Based on the after-mentioned perspectives, it could be indicated that students live in two worlds, the actual face-to-face interaction world and the virtual world of social networking. Such students have grown up in a world surrounded by numerous forms of technology. Computers have been accessible in the home, at school, or in libraries throughout their lives, and at a young age, the smartphone became a part of daily life. Many researchers referred to this current age (18–29 years) as the age group that is saturated with technology (Anderson & Slemp, 2011; Win et al., 2007), which may be utilized for unrestricted interaction at any time and in any place (Manasijevic et al., 2016). For example, with the enablement of technology, any student with an opinion and owns a communication gadget can be part of the social media network.

As such, one would indicate that technology has become the standard in modern culture, and the use of technology in students' daily lives is increasing. At present, as all information is instantly available on social media, it becomes challenging to disregard it. It has become a daily practice in almost every activity of students' lives (Azizi et al., 2019). In some students, social media becomes the first activity to attend to upon waking up from bed early in the morning and the last

activity to manipulate prior sleeping during bedtime (Moulin & Chung, 2016). The scenario depicts the birth of a new form of media dependence among students, which is worse studying.

Generally, social media has many positive aspects, but it can become dangerous in the wrong hands, a situation that can lead to addiction. The concept of addiction to social media, which has an increasing number of users and hours of use, has become a popular topic in social media literature. Scholars defined addiction as impulse dependence on social media use, which leads to destructive effects on the individual's social, emotional, physical, and psychological illness (Young et al., 2011). Other scholars indicate that it encompasses having a strong motivation to use the sites regularly and investing so much time and interest in these activities so much that an individual's daily social life functioning gets deprived (Andreassen et al., 2017).

Actually, the term "addiction" refers to a strong attachment to a single object or subject. So, if some individuals are addicted to anything, they lose control of their thinking and find it challenging to free from the grip of that object. As such, social media addiction is the repeated failure to refrain from its use. Students, for example, engage in numerous unhealthy, impulsive behaviors, such as switching to social media during lectures, despite the impact on academic performance (Cao et al., 2018). Worse, when threatened by their lecturers with a seizure of their phones or punishment, many students would rather risk punishment and expulsion than leave their phones at home or in the dormitory. Equally, they have a tendency to wake up in the middle of the night to check for pop-ups, which results in feeling exhausted the next day (Garett et al., 2018). Notably, as a result of notifications popping up throughout, it is next to impossible for many students to stay away from their social media for hours (Garett et al., 2018). Such behaviors create concerns about students' inability to regulate their behavior, resulting in a worrying scenario among researchers and academicians.

It cannot be denied, in this case, that the "wave of the present" is the virtual age. It is no longer a question of choice. As social media technology advances, students will continue to benefit from it (Ahmer & Tanzil, 2018). However, a concerning scenario has emerged. Students' access to social media has risen dramatically. Equally, the amount of distraction has increased, which competes with their online gratification demands. For example, it has been claimed that the same

advantages that social media provides come at the expense of weakening students' psychological and social well-being (Twenge & Campbell, 2018). Students develop comorbid psychological symptoms, such as low self-esteem which are hard to navigate (Aydogan & Buyukyilmaz, 2017).

Based on the perilous circumstances above, it is conceivable to argue that the effect of such a benefit is so substantial that deleting social media would make life impossible. All that is required currently is to accept the reasonable presumption that social media has come to stay. It has become part of the culture and not a transient stage that will vanish at some point. If this becomes our everyday mindset, it is critical for academics to begin tracking trends in social media usage. In particular, students' motives for utilizing social media and their addictive behaviors should be understood thoroughly to minimize unintended negative implications and false assumptions. Consequently, awareness of modern technology and its effects on students has recently become a critical issue, particularly in most countries outside Zambia; this creates a gap. As such, the research was born out of the need to investigate students' social media usage, addiction levels, and possible consequences in the Copperbelt colleges of education, Zambia.

1.2 Statement of the problem

The use of social media, which consists of varying platforms, is now a global phenomenon. According to Azizi et al. (2019), its usage and reliance among students is rapidly growing worldwide, including in Zambia (Kemp, 2020). Despite the increase, very little is known about students' social media use, addiction levels, and their perceived impact on their social lives, particularly in the colleges of education in Zambia. There is hardly any research-based evidence concerning addictive usage and demographic influences.

Worse still, even the research community outside Zambia seems split on students' social media uptake, addictive usage, and demographic influences. For instance, contradictory views regarding addictive use exist as some studies found a low level of addiction (Folaranmi, 2013; Sahin, 2017), whereas others found a high level of addictive usage (Dau, 2015; Mohammadi et al., 2018). Subsequently, there is no clear evidence that social media addiction is more prevalent in a specific gender. Some studies have shown male students to be more addicted to social media usage than female students (Zheng et al., 2016; Lim et al., 2017), while others have dispelled the

contention (Andreassen et al., 2017; Azizi et al., 2019). As such, there are no convincing answers to these inquiries yet, and this study hopes to bridge this information gap, especially here in Zambia, and specifically, among students in the Copperbelt colleges.

Further, there is scanty information in Zambia concerning the negative influence or impact of social media addiction among college students. Worse still, many studies carried out in different parts of the world have confirmed the existence of the social media addiction phenomenon among students. Subsequently, some scholars have argued that the phenomenon is similar to the addictive behavior of substance abuse, which at times leads to disrupting their well-being (Andreassen et al., 2017). While others have strongly warned that excessive social media use may result in experiencing potential symptoms of depression (Cramer & Inkster, 2017), stress, anxiety (Rosen et al., 2013; Aydogan & Buyukyilmaz, 2017), and sleep deprivation (Garett et al., 2018). Further, academics such as Frost and Rickwood (2017) and Franco and Carrier (2020) argue that these were just warning signs and the tip of the iceberg. They, therefore, emphasize the critical necessity of examining the degree and character of students' social media engagement and its impact on their social lives.

Since there are limited studies of this nature that have been undertaken in less developed countries such as Zambia (Akakandelwa & Walubita, 2017; Franco & Carrier, 2020), there is a need to bridge this gap by undertaking research. This is because disregarding research in this area may be destructive, as the development of appropriate negative social media interventions and strategies may be obscured. As such, this study sought to explore students' extent of social media usage and addiction and its perceived impact on their social lives.

1.3 Study objectives

The main objectives of the study based on modified internationally-recognised measures were to:

1. Examine the extent to which students use social media.
2. Determine whether there are any significant differences in social media usage among students by gender, age, college status, or academic year.
3. Establish the motivation behind the use of social media among college students.
4. Determine the level of students' addiction to social media.
5. Establish the potential consequences of social media addiction on students' social lives.

1.4 Research Questions

The study sought to have the following questions answered;

1. What is the extent to which students utilize social media?
2. Are there any significant differences in social media usage among students in terms of gender, age, college status and academic year?
3. For what purposes do students use social media?
4. What is the level of students' addiction to social media?
5. Are there any potential consequences associated with social media addiction on students' social life?

1.5 Theoretical framework

As Creswell (2012) advanced, a theoretical framework is a design that identifies and describes the interrelationship of various variables embedded in the study. It is used to hypothesize, understand, or give meaning to multiple elements that influence, affect, or predict the events or outcomes under investigation. It also provides a platform for argument. Several theories have been proposed to explain how people use social media and what they get out of it. However, for this study, three theories have been adopted. The Uses and Gratification Theory (U & GT), which examines people's choices of particular media to meet specific pleasures sought from the media they select, and the Media Systems Dependency Theory (MSDT), which describes how the more individuals rely on the media to fulfill their desires, the more essential the media becomes to that person. Also, the Rational Addictive Theory (RAT) which is based on the premise that addicts comprehend and recognize addictive habits but logically choose to continue with them because they value the addictive behavior over the probable adverse consequences. The three theories were chosen to complement one another; if one showed evidence of a shortfall, it was assumed that the others would support it. Details of the three theories are presented in the subsequence subheadings.

1.5.1 Uses and Gratification Theory

One theory that focuses on social communication is the U & GT. According to Mehrad and Tajer (2016), the theory was first developed by Elihu Katz, (a sociologist & communication scientists) in the early 1940s when he came up with the notion that people use the media to their benefit.

The conception of Katz's U & GT was primarily based upon early theories of mass media communication and was designed to examine traditional media use behaviors. Kircaburun et al. (2018) refer U & GT to the "how" and "why" individuals use social media. Equally, Baran and Davis (2006) define U & GT as the "approach to media study focusing on how people use media and the gratifications they seek from that use" (p. 262). The driving question of the theory is; why do students use social media? According to Kircaburun et al. (2018:529), the theory has four significant assumptions: (i) media use is goal-directed or motivated, (ii) people use media to satisfy their needs and desires, (iii) social and psychological factors mediate media use, and (iv) media use and interpersonal communication are related. Thus, the theory was developed to evaluate the user's motivations and gratifications for specific media content from each media outlet that satisfies a particular need.

The characteristics of the U & GT appear to be strongly connected to the research concerns of this study. This is because the investigation focuses on determining the gratifications for students' frequent use of social media and its implications. Currently, college students turn to the media for various gratifications (Guliz & Basak, 2018). In this regard, U & GT holds that students are responsible for choosing the media to achieve their desired gratification. Consistency in the desire to fulfill needs creates a conditioned situation. The user, at times, feels an urge to visit social media. Further, they could think that they will not meet their needs if they do not use it several times (Kircaburun et al., 2018). To meet the gratification, one must obtain the said need and embark on searching for other gratifying conditions. In fact, researchers argued that the idea of needs not being met and continuously searching for other demands may be one of the factors driving social media addiction (Ramesh et al., 2018). Because they spend so much time online, there is cause to wonder how they use social media and how it leads to addiction. Mehrad and Tajer (2016:6) argued that "since people use social media for different reasons, the accurate recognition of the media's effect is possible," which requires further assessment and appropriate explanation in this study.

Thus, when it comes to user behavior and motivation, the U & GT was seen to be the most appropriate theory that could explain "why" certain media behaviors occur and how they can be predicted for social media addiction. As such, U & GT is one of the most popular theoretical

frameworks that examine questions of "how" and "why" students use social media (Mehrad & Tajer, 2016). Ideally, students use social media to gratify all kinds of needs, including academic work and other recreational purposes. Taking U & GT into consideration helps frame the meanings and intentions of media usage and introduces several factors that must be carefully considered to comprehend students' social media usage tendencies (Baran & Davis, 2006; Kircaburun et al., 2018). In this regard, the theory serves as an appropriate theoretical framework for investigating the social or psychological needs that motivate students to engage in various media uses and how these media uses affect their social lives.

1.5.2 The Rational Addiction Theory

The Rational Addiction Theory (RAT) model was proposed by Becker and Murphy (1988). According to Kwon et al. (2015), the model is one of the first to model the behavior of addicts in a rational way. By rational, Kwon et al. mean that addicts have consistent preferences and make utility-maximizing decisions about whether or not to consume an addictive product, as well as the ability to consider the repercussions of present intake on future consumption. This assumption encompasses addiction habits that are harmful or beneficial. The theory's heart is the assumption that addicts understand and recognize addictive behavior, but rationally choose to continue with the behavior because they value the addictive behavior over the potential adverse costs of said behavior (Kwon et al., 2015). Perali et al. (2015:2) further argued that "addiction does not arise from one day; it is the result of habitual consumption perpetuated over time." Intake of potentially addictive items entails the creation of a habit, which is built day by day.

A primary tenet of RAT is that present-minded youth have a higher likelihood of addiction than older-minded individuals (Becker & Murphy, 1988). This is primarily because the younger generation is only concerned with the here and now and is unconcerned about how their decisions today may affect tomorrow or the future (Becker & Murphy, 1988). Furthermore, the more addicted individuals become, the more their consumption of the product increases and their myopic view of the present grow, coupled with less forward-thinking. Another principle of RAT is that, at times, it takes a sudden or immediate termination to halt the addictive behavior (Becker & Murphy, 1988), which could be considered a workable remedy for addictions. However, according to this theory, many rationally addicted people claim to be unable to break free from

their addictive behavior when attempting to wean off an addiction, resulting in potentially dangerous situations.

As Becker and Murphy (1988) pointed out, an individual can be addicted to alcohol, cocaine, and cigarettes. Equally, one may also be addicted to eating, music, television, and social media. Building on the theoretical insights offered by Becker and Murphy, this study adopted their framework designed to enrich the understanding of students' problematic usage of social media. The researcher draws on this rational choice framework to explore students' social media usage, addiction behavior, and the possible consequences. This theory resonates well with this study as the central tenet of RAT is to explain the addictive behavior of individuals. RAT is employed in this study because college students may choose to use it excessively while knowing that social media might impair one's psychological and social well-being. The theory provides insight into why students may be aware that some activities are or may be addictive or damaging, yet logically choose to engage in them (Kwon et al., 2015).

As pointed out earlier, many students choose to spend a considerable amount of time on various social media platforms for their known reasons. Their use of social media has become so habitual that they often fail to consider how their behavior will impact the future. However, Kwon et al. (2015:7) argued that the essential aspect of the theory is that "by weighing the effects of their actions on the future, addicts, who have full knowledge of the consequences of their addiction, strategically calculate the expected benefits against costs." Thus, the gains arising from the students' usage of social media should assist in the analysis of how the habit may impact their psychological and social well-being. For example, social media addicts may be aware that their current usage will stimulate greater future social media consumption and that continued usage will result in negative consequences. The situation may create a complex issue that deserves the attention of scholars. Thus, RAT partners nicely with other two theories to help understand students' social media addiction and potential adverse outcomes.

1.5.3 Media System Dependence Theory

This study was also guided by Media System Dependence Theory (MSDT), a systematic approach to studying the potential effects of mass media on consumers and the interactions

between media, users, and social systems (Ball-Rokeach, 1985). MSDT was proposed by American communications researchers Sandra Ball-Rokeach and Melvin DeFleur. History has it that the theory emerged from the communication discipline, focusing on understanding the relationship between media and users (DeFleur & Ball-Rokeach, 1989). The term "dependency" in theory refers to the mutual relationships among media, social systems, and individuals (Echeburúa & Corral, 2010). The MSDT links the interrelations of broad social systems, mass media, and users into a comprehensive explanation of media effects. The theory indicates that media users play an active role in choosing the media they use. Then they rely on it to satisfy particular needs and, in the process, develop dependencies on them. However, too much dependence, later on, brings about addictions and other negative consequences such as experiencing potential symptoms of depression (Cramer & Inkster, 2017) and poor quality of sleep (Garett et al., 2018) which are detrimental to one's social life.

Researchers put forward three types of effects resulting from an individual's dependency on social media: cognitive, affective, and behavioral (Ognyanova & Ball-Rokeach, 2012). Cognitive effects are changes in an individual's mind regarding attitudes, beliefs, and values, whereas; affective effects include the development of anxiety and feelings of fear about losing out on a particular perceived essential social media scene. At the same time, a behavioral effect induced by too much dependency on social media results in effects such as procrastination, insomnia, tantrums, and other psycho-social problems like self-esteem (Echeburúa & Corral, 2010). It could be indicated that since students' needs are different, what they depend on fluctuates based on their cognitive, affective, and behavioral (Ognyanova & Ball-Rokeach, 2012). If a student finds a social media platform to provide several functions that are central to his needs, he will be more inclined to continue to use that particular platform in the future. In fact, the theory predicts that the popularity of social media platforms can indicate the dependency of social media users on the medium (Ball-Rokeach, 1985).

Thus, MSDT provides a foundation for understanding students' motivations for relying only on particular social media platforms. It emphasizes that the more people rely on the media to meet their needs, the more influential the media will become in their lives (Ognyanova & Ball-Rokeach, 2012). For instance, one study indicated that when a student checks phone notifications

frequently, it becomes a habit that is hard to break. This is critical for individuals because they cannot function without frequent visits to social media (Araujo, 2016). The theory complements well with other theories informing the relationship between media usage and addiction and its possible negative consequences. Generally, all the three theories are straightforward to understand. They link together, which helps the perception of social media usage and addiction become more explicit and can therefore help explain the findings of this study.

1.6 Conceptual framework

Having discussed the background, defined the research question and discussed the theories, this segment now presents a detailed description of the conceptual framework (my own model based on my experience) and its constituent components.

A conceptual framework is a network or researcher's plan that comprises interlinked concepts that provide a comprehensive understanding of a phenomenon under study (Jabareen, 2009). In their study, Miles and Huberman (1994:18) indicated that a conceptual framework can be "graphical or in narrative form, showing the key variables or constructs to be studied and the presumed relationships between them." In that case, it is similar to the analytical framework (Jabareen, 2009), which explains either graphically or in a narrative way the key variables and their presumed relationship among them. It aids the researcher in bringing all aspects of the study together in a systematic way by elucidating their connections. As such, it is envisaged that the framework may prove useful as a tool for researchers seeking to understand why a particular form of media use behaviour occurs in order to facilitate the researcher's ability to readily identify and define ideas within the scope of the study's problem. Based on these premises and also relating to literature, a conceptual framework was developed.

Figure 2 below provides the proposed conceptual framework that guided the study. The study was guided by what the researcher believes to be the logical process of students' social media usage, their addiction tendencies, and the possible consequences of social media addiction on their social lives. However, it must be noted that the current frame does not presume to describe all factors potentially associated with social media usage. Rather, it serves to guide researchers in identifying and describing the factors needed to understand a particular instance of media use

behavior and the potential effects this behavior may enable. The rationale behind the formulation of the frame was driven by the developmental nature of the social media industry. Mirroring the growth of social media over the preceding decade, the notion of media use has become increasingly complex. What presents more complexity to scholars attempting to organize and contribute to the literature is the pace at which social media concepts develop, degrade, and come in and out of vogue. Thus, researchers who want to understand this developing field of study must understand foundational concepts of these technologies, their capabilities and constraints, their operation and regulation, and so much more. Thus, the framework has been synthesized into two main parts (dependency and independency variables), each with its own set of sub-tasks involving specification ideas and concepts.

The term "social media" on the side of an independent variable can refer to an incredibly diverse array of platforms and technologies, each of which is subject to different capabilities and constraints. Scholars must be aware of these more mechanical aspects of social media, as well as their informational structure online, in order to develop a comprehensive understanding of the field as a whole. Hence, it was necessary to capture variables believed to influence usage of social media with regard to the length of time students have been on social media, frequency of visitation, and time they spend on social media per visit. Knowledge of these concepts and their applications may lead to the understanding of how social media compels students to engage in excessive usage, which may later exacerbate their social life style.

Regarding dependent variables, much of the current research being done on social media use addiction identifies some iteration of level or measurement of impacts on students' social lives. The conceptual framework acknowledges studies indicating that different types of media use are associated with a variety of impacts and, importantly, that such impacts can differ across individual and situational factors. Thus, in this study, the dependent variables point to how social media gains the power to leverage students' social health styles once excessive usage dominates the minds of the students. It also provides a way to extend the concept beyond the provision of the causal effects in future studies.

In a nutshell, the conceptual framework is significant in this study as it aids roughly in the organization of the literature, methodology and results. Ideally, synthesizing concepts that explain how students get affected by the media they adopt provides this study with a solid footing in the literature. It was envisaged that the conceptual framework as it exists would be most helpful when applied as a kind of building block to understand why a particular form of media use behavior occurs. Besides, this framework was designed to support scholars who wish to understand, organize, and even operationalize particular concepts within the discourse as a whole. It also supports future researchers in developing effective, appropriate conceptual frameworks that are able to make meaningful contributions to the literature. Thus, the need for such a framework to exist is quite unavoidable in this study.

Conceptual Framework

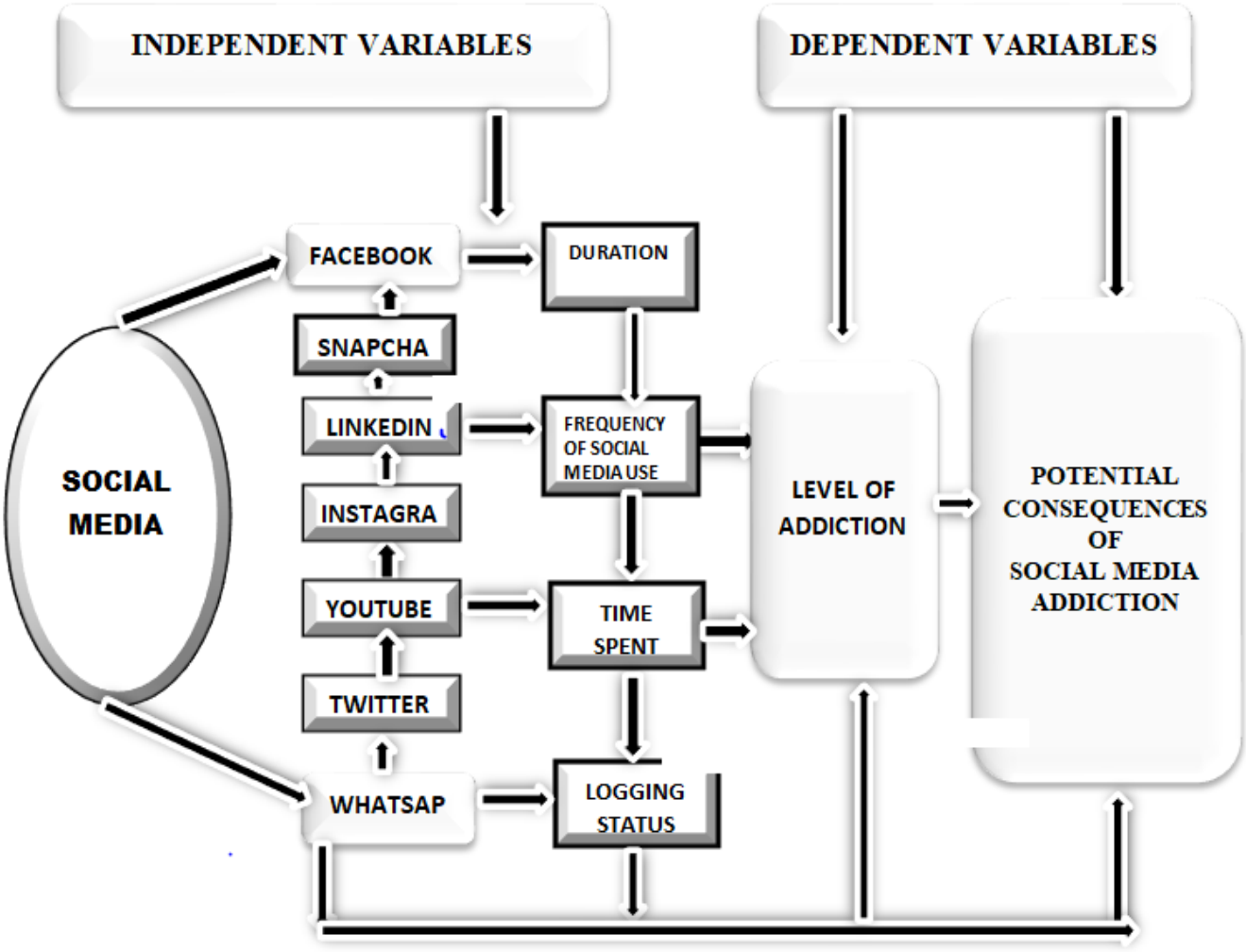

Figure 2: Social media usage, Addiction and implications, Source: Researcher 2019

1.7 Significance of the Study

Using social media has become one of college students' most common daily activities. Moreover, there has been a noticeable increase in the addictive use of social media of late. In fact, this tendency is expected to continue. Sadly, it is undeniable that heavy usage of social media harms people's lives. This situation has sparked a surge of interest in research on social media by scholars worldwide. However, there is scanty literature on all aspects of social media in Zambia. Worse still, finding literature on various aspects of social media in relation to addictions and potential consequences in colleges of education, particularly on the Copperbelt in Zambia, is quite tricky. It is assumed that colleges of education face dramatic challenges in addressing the adverse impacts of social media addiction. However, strategies to curb such effects are still unknown. If social media addiction has a potential negative influence on students in colleges of education on the Copperbelt, in that case, there may be ways to institute prevention measures.

Therefore, the current study results might be of significance to the Ministry of Education, particularly in colleges of education in Zambia. For instance, it may pave the way for lecturers, students, psychosocial counselors, and scholars to know the adverse of excessive use of social media. In that case, it may help lecturers understand how best to sustain the students' attention to other activities other than relying heavily on social media during and after lectures. Conversely, students may be mindful of how they would control their problematic use of social media and how they feel about themselves.

Moreover, the results of this study may be of benefit to professionals involved in psychosocial counseling as it may help them develop appropriate preventive programs to reduce the scourge. Perhaps such programs should include encouraging students to use social media with benefit motives and as an educative tool to improve their knowledge of social media addiction habits. The situation would also help college administrators recognize the extent to which college students use social media and how it might impact their psychological and social life. The move may help develop effective plans and college-based policies to handle the problem. It is also expected that the current study will inspire other scholars to do further research in this area.

1.8 Limitations

This section briefly discusses the study limitations and their recommendations and researcher observations and conditions that influenced the study methods and subsequent results. Best and Kahn (2008:39) characterize impediments as "those conditions outside the ability to control." Limitations are shortcomings in an investigation ordinarily beyond the researcher's control. The supposition is that all that a researcher brings out should have constraints or some likeness. Such limitations help future researchers avoid potential risks. In such a case, multiple limitations of this study should be considered when interpreting and applying the results. Thus, this study's limitations included difficulty obtaining a representative sample population, timeframe, and survey challenges.

This research used a quantitative approach to explore students' social media usage, addiction behaviors, and the possible consequences of social media addiction in education colleges on the Copperbelt, Zambia. The research investigated the nature of respondents in three (3) public and three (3) private colleges of education in the Copperbelt province. This study would have been more compelling if it had included even students pursuing degree programs in various colleges of education and universities. However, the limited time available and the limited resources could not allow the researcher to undertake a study of that magnitude. Besides, due to varying demographic profiles and social norms that may influence student behavior regarding social media addiction, generalizing the results to other colleges in different countries should be done with caution. However, the results would be useful for literature reviews as well as for future research reference.

Secondly, the data utilized in this study came from a relatively non-clinical large sample across colleges on the Copperbelt. Respondents self-reported their social media usage, depression, Stress, anxiety, and sleep deprivation symptoms, and the results helped provide preliminary evidence of associations. Though this is a common method to assess such variables among social media researchers, it is generally limited in weighing temporal and causal relationships between the variables. In this regard, further research could obtain a clinically based and professional way of assessing the impacts of social media on the social life of college students to establish appropriate relationships that will support or disapprove the perceived current finding.

1.9 Delimitation of the study

The study was limited to investigating students' social media usage, their addiction behaviors, and the possible consequences of social media addiction in education colleges on the Copperbelt. A descriptive research design utilizing a quantitative approach was employed. Its study's focus was narrowed in scope to one province (Copperbelt), from which only 579 college students pursuing diploma programs were sampled. Simple and stratified random sampling procedures were utilized to sample the respondents from three public and three private colleges of education on the Copperbelt.

1.10 Definition of Terms

Addiction: Habitual behavior compelling towards doing particular activities so frequently that bring about harmful habits and disrupt other vital activities.

Facebook: It is an online social networking website where people can create profiles, share information such as photos and quotes.

Fear of missing out or FoMO: Pervasive apprehension that others might be having rewarding experiences from which one is absent.

Media: They are messages communicated through a mass medium to several people.

Social well-being: State of well-being that (emotional, psychological, and social well-being) affects how individuals think, feel, act, handle stress, and make choices.

Motivation: The process of stimulating people to action to accomplish the goals.

Platform: Technological group used as a base upon which other applications, processes, or technologies are developed.

Social Media: Forms of electronic communication which facilitate interaction based on specific interests. Social media include web and mobile technology.

Social media addiction: Impulse dependence on social media use leading to the destruction of social, emotional, physical, and mental health.

WhatsApp: It is a free mobile messaging application, massively used for messages, images, audio or video. The cost is significantly less than texting.

1.11 Summary

This chapter has introduced the topic, "Students' Social Media Usage, Addiction Levels and their Perceived Impact on Social Life, a Case of Copperbelt Colleges of Education, Zambia." It has also presented some crucial issues to contextualize this study. Thus, an overview of the research background has been presented with the need for conducting the study. Perspectives from both local and outside the country regarding the growth of social media have also been presented. It has been observed that social media usage among students is constantly surging. However, very little is known about students' social medial use, addiction levels and its perceived impact on their social life, particularly in the colleges of education in Zambia. Hence such a situation compelled a researcher to undertake a study.

The study objective and questions guiding the research have been outlined. These provide a basis to learn more about the situation at hand. This chapter has also explained and given justification for the significance of the research. The chapter also outlines the limitations and delimitations of the study. Subsequently, the conceptual and theoretical approaches adopted in the study are also mentioned. Among the theories included are the uses and gratification theory, the media system-dependent theory, and rational addiction theory. The theories have been previously utilized by other social media scholars and have proven effective in this study. A conceptual framework outlining the dependent and independent variables has also been presented and explained, together with the justification for the need to incorporate the conceptual frame into the study. Lastly, some key terms that have been utilised in the study have also been given in order to comprehend the social media phenomenon thoroughly. The next chapter will discuss the literature that informed this study.

CHAPTER 2: LITERATURE REVIEW

2.0 Overview

This chapter discusses the literature on student social media usage, addiction, and potential consequences. This is a particularly pertinent subject since it has sparked much controversy regarding its rapid development and more enticing use, which is thought to lead to addiction. It is also believed to have profound social and psychological implications for students. The first phase of this literature introduces the concept of social media and popular platforms. It also presents literature on students' usage of social media and the idea of social media addiction. The second phase outlines empirical studies that have been documented on the extent of social media usage among the students, reasons for use, and level of addiction. It closes with a literature review on possible consequences and the identified gaps arising from the reviewed literature. These sources of information are considered helpful to this study as they are linked to research questions.

2.1 The concept of social media

Ideally, social media is regarded as a modification and explosion of traditional word of mouth networks, which was a one-way passive media of communication and interaction. The mouth word has always been the most efficient and reliable method of sharing knowledge. However, within the last few decades, social media has radically changed the media sphere. As it is known now, it is highly interactive (Niranjjan et al., 2017). Interestingly, no single definition of social media has been recognized and agreed upon by scholars. Everyone has conceivably an idea of what social media is, and as such, they define it in their understanding (Dearborn, 2014). Moreover, this concept is perceived as new, the reality scholars describe it keep on changing. Hence, it is not easy to define social media to satisfy every individual. However, there is a consensus that social media incorporates media technology and social interaction in its definition across social media scholars.

Boyd and Ellison (2007) define social media as a platform that helps create a profile and make explicit and traverse relationships. Other scholars have advanced that social media is a set of information technologies that facilitate interaction and networking (Kietzmann et al., 2011). Jacka and Scott (2011) argue that social media is the group of Web-based broadcast technologies that enable the content's democratization. It gives people the ability to emerge from personal

content users to publishers. Kaplan and Haenlein (2010:61) point out that "*social media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 that allow the creation and exchange of user-generated content."* Shilip and Arun-Kanti **(**2019) claim that social media is a prevalent communication channel that is extremely fast and broad and helps share content, information, entertainment, and know-how.

As observed in the preceding definition, it can be argued that Web 2.0 technology played a significant role in the definition of social media. For example, social media is regarded as an Internet-based application that enhances visual and non-visual interaction and communication. Web 2.0 marked the second stage of Internet development characterized by technologies and ideologies that drive media-rich content creation across media platforms (Kaplan & Haenlein, 2010). The site provides individual users with a chance to create, send and store both visual and non-visual content, capabilities that were not possible at the time of web 1.0 (Dhingra et al., 2019). Web 1.0 is seen to be the initial stage world wide web which attracted few content creators, Majority of its users were acting as consumers of the content and had pages that were static and not dynamic (Kaplan & Haenlein, 2010). Hence, the significant discrepancy that may be noted between the two webs is that web 2 enables users to create, share and collaborate. It also helps in communication and publishing uncensored content to followers without any publishing skill. These advances were not present in the initial web. In this sense, social media can be described as a website that allows profile creation, content creation, content storage, and the relationship between consumers based on varying platforms.

Since its inception, social media has seen the birth of many of the most influential platforms such as Facebook, WhatsApp, LinkedIn, YouTube, Flickr, Delicious, blogs, wikis, Pinterest, Twitter, and Instagram (Cramer & Inkster, 2017). Accordingly, today's social media landscape includes 65+ social media sites. These sites continually evolve and compete by creating the latest features and operations (Looy, 2016). Equally, many of these platforms serve the same function but differ substantially in consumption (Cramer & Inkster, 2017). Some social networking sites are top-rated than others. However, Kircaburun et al. (2018) argued that even those with less popularity get used by a portion of the population.

Social media has connected areas worldwide in ways that were not previously possible, bringing the world's population a little closer together. The rapid development of social media has resulted in several significant changes in how people accept and use them for engagement and communication (Dhingra et al., 2019). It has provided many users the ability to access multiple social network information with only a few touches. Currently, social media have become the vital channel that has given voices to several unheard and unseen individuals. Henceforth, such innovations suggest that the outlook of social media today is quite different from what was considered social media two decades ago. The situation entails that the researcher must continuously catch up to the new development of social media being utilized. The act may advance totality comprehension on social media trends and other characteristics.

2.2 Popular Social Media platform

Today's social media consists of numerous platforms, all serving the same social networking services but with different purposes. As such, some social media platforms are more popular than others, and they differ in terms of their unique features. As stated already, there is a variety of platforms. The most popular and commonly known include Facebook, WhatsApp, Twitter, Snapchat, Instagram, LinkedIn, and YouTube, to mention but a few (Kircaburun et al., 2018). These platforms exhibit differences in their user preferences and the fast rate of their innovation sophistication and usage.

2.2.1 Facebook

Facebook is one of the platforms commonly used by various individuals for varying reasons (Nyagah et al., 2019). Mark Zuckerberg launched the platform in 2004 to connect the United States of America (USA) college students studying at Harvard College. In its initial month, over half of the 19,500 students signed up (Smith & Anderson, 2018). After gaining immense popularity, Facebook opened its registration to non-college students. In 2008, Facebook surpassed other social media platforms because of the attention it received from its more than a billion users. As of 2013, Facebook was among the first top five most popular social media platforms, which boasted 71% of online users globally (Smith & Anderson, 2018). The 2018 social networking statistical data showed Facebook as the most dominant and unavoidable platform, mainly targeting the young generation, with 2.2 billion monthly active users (Smith &

Anderson, 2018). Such a scenario represented over one-quarter of the global population. The number rapidly increased in the second quarter of 2020, with over 2.7 billion monthly active users (Facebook, 2020).

Facebook has the role of giving students the power to share and make the world closer and open (Saleem & Mengyan, 2017). The platform has become highly interactive. Anyone with an e-mail address and data bundles could sign up to be part of the global multitude platform user's community. Individual users can create profiles, join the preexisting group, update status, upload photos, and tag others. The platform also provides private messaging, starting a newsgroup, and keeping in touch with friends, family, and colleagues (Xu & Tan, 2012). Members can create a personal profile and groups, which allows those with common interests to find each other and interact (Social Media Fact Sheet, 2018). Facebook also allows users to create feeds, comment on them, and post. It also allows individuals to navigate the content of their friends freely (Looy, 2016). Currently, Facebook is used to broadcast live streams; for instance, students can produce and publish programs in real virtual form (Gandolfi, 2016). Hence, the platform has brought numerous advantages in terms of increasing connectivity.

2.2.2 WhatsApp

WhatsApp is a famous global messaging app founded in 2009 by Brian Action and Jan Koum, former employees of yahoo. Since its inception, WhatsApp has revolutionized the way individuals communicate and network (Aharony, 2015). It became one of the globe's most popular messaging applications by 2015 and it had over 2 billion active users worldwide by February 2020. Users have been increasing at half a billion every two years (Statista, 2020).

WhatsApp is an advanced Internet-based mobile instant message app with unique security key features known as end-to-end encrypted. The feature provides the opportunity for individuals or groups to create and share social media content with only those members of the group (Aharony, 2015). It supports both voice and video transmission and sends and receives many different media types such as text, photos, video documents, and location. For example, Ahmed et al. (2018) conducted a study using a sample of 100 youth aged between 18-28 years. The study discovered that WhatsApp was being used for knowledge sharing through videos, photo updates,

communication purposes only, and promotional activities regardless of the distance between users. As such, it can be argued that WhatsApp is slowly becoming a widely accepted platform due to its affordability, convenience, and the ability to send visual or non-visual unlimited messages. It has become a cheaper substitute for messaging, and it allows users to be aware of the sent item and know whether the message was read or not. The app also shows the time an individual was online, and if a person is online, it shows that status quo (Aharony, 2015).

2.2.3 Instagram

Instagram is a mobile application for smartphones freely available in Google play and the mobile system and online. It is a photo-sharing platform that enables users to take pictures or videos, edit them, upload them, and share them with followers (Salomon, 2013). It was officially launched in 2010 as an iOS app by software engineers Michel Krieger and Kelvin Systrom, who were computer programmers employed by Google. Since then, the platform has excelled as an effective communication platform among social media marketers. It provides services that allow users to share comments and likes (Sheldon & Bryant, 2016). It also consists of different manipulation tools to transform visual content and share them instantly with group members or individuals (Abbott et al., 2013; D'SouzaD'Souza & Hemamalini, 2018).

The platform has privacy preferences that allow users to make their posts available to only users' followers (Salomon, 2013). Instagram was sold to Facebook Company in 2012 and has grown steadily since then. It has become the most influential, attractive, and appealing site for many users in different firms and individuals. It makes sales, products, and advertising terms on commodities to make them smarter and more efficient (Salomon, 2013). As noted already, Instagram has been increasing in popularity and usage. For instance, in 2013, it was seen that Instagram had 100 million users (Abbott et al., 2013). As of June 2019, the app reported more than one billion monthly users worldwide (Statista, 2020).

2.2.4 YouTube

YouTube is a platform that was launched in 2005. In terms of its role, it resembles other social media platforms, though it has an added advantage of video publishing (Klobas et al., 2018). This implies that the platform provides a forum to connect with other users and share video

fragments, and it has inspired college students across the world (Klobas et al., 2018). Since its inception, it has experienced tremendous innovations. Of late, it has transformed itself from an amateur video to one that distributes original video content and is part of the entertainment industry (Balakrishnan & Griffiths, 2018). According to Klobas et al. (2018), YouTube provides two significant roles, content searching that allows users to browse and search for unique videos of their interest. Secondly, it offers an opportunity for content creation in which the users make and share their video content with others. With the work of the Internet, individuals can upload, view, and share user-generated video content (Klobas et al., 2018).

Ideally, an individual with a YouTube account can comment on videos, subscribe to several channels, and create playlists to organize their preferred videos. It provides entertainment, relaxation, information sharing, and interaction among the individuals interacting on YouTube (McQuail, 2010). Studies have shown that the use of YouTube as of 2018 has spread across all disciplines and fields (Klobas et al., 2018). As of 2019, YouTube was the second-highest global active top-most favored after Facebook. Billions of people share YouTube content regularly (Klobas et al., 2018). YouTube is now one of the significant types of social media used in learning institutions. It can remodel an activity, add value, and further explain any academic exercise. Lecturers upload various educational materials of their interest on YouTube and download educational videos from YouTube, and they are given to students as material supplements (Buzzetto-More, 2015). However, Klobas et al. (2018) found that compulsive YouTube usage was strongly noticed among the students who preferred entertainment and less to those who were engaging it more for learning purposes. Therefore, the platform is dominated by content watching and engagement in content loaded by others. Hence, it could be utilized as a more credible educational platform if implemented effectively.

2.2.5 Twitter

Twitter is one of the most popular known micro-blogging social media. The site was founded in 2006, and since then, it has expanded tremendously. For example, in the last decade, Twitter users have risen drastically from 30 million to 320 million globally (Statista, 2020). Twitter provides users with the opportunity to broadcast short messages, headlines, and statements. It is also used to update current status, initiate conversations, and endorse tweets content (Kaplan &

Haenlein, 2011). There is no reciprocation in Twitter; users can follow others or track an individual user. The platform operates anonymously and only focuses on shared content (Kaplan & Haenlein, 2011). As such, it implies that users access instant and up-to-date information from strangers. In the education circles, Twitter is quite useful, as it is used for connecting and interacting with other researchers across countries (Kaplan & Haenlein, 2011).

According to Kaplan and Haenlein (2011), the platform has become a valuable marketing tool for publishers to promote research articles. Students and educators utilize Twitter as they pursue their academic desires. Twitter also enables users to follow the account without permission. Hence, Twitter is seen as an emerging content generating and disseminating platform. It allows the users to circulate content to millions of people worldwide. The overwhelming flow of information and tweets may lead students to adverse outcomes such as addiction. For example, a study was conducted in the United Kingdom (Ndasauka et al., 2016) on the excessive use of Twitter among college students. Findings provided evidence that real-life social interaction using twitter produces ill social life effects on users once Twitter is used excessively. Hence, Twitter was also seen as vital for inclusion in this study to comprehend it entirely.

2.2.6 Snapchat

Snapchat is a recent social media platform launched in 2011 (Gillette, 2014). It is a camera application social media platform that enables users to send and receive sensitive photos and videos. It empowers individuals to express themselves, learn about the world, and have a pleasurable moment together. The platform first started as a means for users to directly exchange photos called snap that expire upon viewing by the recipient (Piwek & Joinson, 2016). The main reason it becomes attractive to users, is that the platform was the first to offer 24 hours for photos and videos to be available online, which was later deleted forever once that time was up (Gillette, 2014). As such, data disappearing made the interaction less (Piwek & Joinson, 2016).

The rise in Snapchat use has been one of the most rapid and unprecedented in its origin. It is estimated that the platform grew from 10 million in 2012 to over 100 million in 2015. It has currently broken the active user base record with over 210 million active users, of which most of the users are the youth with an age range between 18-34 years (Macmillan & Rusli, 2014;

Snapchat Statistics 2020). Snapchat app can be freely downloaded on Android and IOS apps. Operationally, it opens directly into the camera, making it easy to create a snap and send it to friends. Users can easily switch to other platforms at a low cost (Piwek & Joinson, 2016).

2.2.7 LinkedIn

LinkedIn is another social media platform founded in 2002 and launched in 2003. Since its creation, the platform has grown steadily, reaching over 690 million users in more than 200 countries worldwide (LinkedIn Stats, 2020). It is the world's largest professional business-oriented platform that has attracted numerous business communities. LinkedIn is seen as a professional networking platform targeting professionals. Individual users set up a profile similar to a resume and then link to other people they know (Basak & Calisir, 2014). Its mission is to help career professionals succeed through networking opportunities. Social media users can create and share information, ideas, and career interests via virtual communities. It also opens jobs for professionals by focusing on professional information, allowing users to construct abbreviated curriculum vitae and establish professional connections (Basak & Calisir, 2014).

Since the young generation is known for their extensive connectivity and particularly for their heavy usage of social media (Alkaabi et al., 2017), LinkedIn services and their applications may be compelling. Mainly, those students who may have an idea of a professional career pathway could be of interest. On the contrary, it appears that many college students do not use it for professional purposes and, in particular, are not heavy users of the platform (Bradley, 2011) based on the primary purpose it offers. Familiarising students with LinkedIn and encouraging them to create a robust professional profile can help market themselves and grow their network.

Overall, while social media platforms have rapidly risen in their innovations and sophistication, the exact nature of their use by students is still unknown in colleges of education, particularly on the Copperbelt of Zambia. More importantly, there is a shortage of details on specific patterns of some platforms used, the context in which students use it, and the regularity of service or type of content students share. The implication is that a gap exists in the literature. Thus, incorporating some several notable social media platforms into the current study’s examination may bridge the gap in the literature, particularly in the Zambia context.

2.3 College Students usage of Social media

As already mentioned, social media has infiltrated the 21st-century youthful generations of its use. In the previous decade, students worldwide, including Zambia, have seen exponential development and popularity in social media platform use. A major contributing factor to this evolution and popularity of media usage among the students seems to point at smartphones' development and popularisation. These devices allow users to maintain connections even when away from desktop computers. Another factor is the exposure to various platforms that are constantly changing in terms of their innovations and sophistication. Students can "check-in" on these platforms via their smartphones, making social media a salient part of students' daily lives. Such dynamics signifies that the world has become technologically advanced.

Besides, some scholars have confirmed in their studies that nearly all of their sampled students were social media users (Apuke, 2018; Shilip & Arun-Kanti, 2019). It is understandable, then, that such tremendous technological innovations, including the development of the internet, have dramatically altered modern college students' gratification in social media usage. Everything is linked to a social network. Facebook, WhatsApp, and other platform made no meaning a few decades back. Today they are campus names, and everyone knows them. As such, social media has made it a very active means of interaction, particularly among higher learning institutions such as colleges. This has inspired this research to utilize students as sample studies to understand their social media usage patterns and implications.

In today's digital era, many college students using social media are overwhelmed by not only the possibilities that border on owning pages on several platforms, but how frequently they visit and use those pages. Consequently, the extent of usage of social media among students seems unknown, particularly in colleges of education on the Copperbelt of Zambia. Nevertheless, it has been seen that there are likely to be a good number of college students utilizing some form of social media at any given time. For example, Wang et al. (2011) pointed out that roughly 64% of college students post or respond to social media during school hours. Taking advantage of different social media platforms, students interact with other students and other companionship. Regarding its ease of use, speed, and gratification, students can now connect with a school's campus life 24/7 through the work of social media (Niranjjan et al., 2017).

Colleges share campus life as it happens, using various platforms. Currently, it plays an essential role in the way colleges interact with students and share information online to stay informed at their colleges. For example, Rousseau et al. (2017) noted that pictures are the most shared media on Facebook, followed by videos. Conversely, students use social media to reach lecturers and their compassions (Rousseau et al., 2017). Research also entails that students like sharing photos on Instagram, Tweeting updates, chatting about their boring lecturer's lectures. They also use LinkedIn for internship opportunities or Facebook messaging to search for friends across the globe (Toma & Hancock, 2013). Such activities enhance socializing experiences and provide a sense of belonging for self-worth and self-integrity (Niranjjan et al., 2017). In this regard, social media helps to enhance communication. Regardless of their geographic locations, college students worldwide use social media platforms for daily information, sending and receiving data to various social media groupings (Apuke, 2018). The act seems to be an enjoyable and universally accepted behavior in students' way of living (Andreassen et al., 2017).

Besides, social media has enabled college students to connect to the alumnus regardless of distance. However, it has been observed that students prefer to communicate with such alumni friends' face-to-face (Baym et al., 2004). Despite the need to interact offline, distances make it challenging to interact with their old schoolmates. Hence, other available literature indicates that social media have become an alternative in the absence of face-to-face interactions. For example, scholars argued that individuals use social media to stay connected with close people who are not physically present. It mainly ensures that they are not left behind (Manasijevic et al., 2016).

Social media is now everywhere; students can access it at any time of day or night for whatever reason they want. Despite the benefits that students can harness from social media, its usage appears to have harmful implications (LaRose et al., 2014). This could indicate that it has both positive and negative consequences. Thus, it is not very rewarding. For instance, some motives that make students engage in social media have been described as having the potential to induce social media addiction and other psychological and social life problems among the users (Walrave et al., 2016). Thus, we need to enhance our understanding of the contextual factors affecting students' social media usage. This can only be realized by conducting research to uncover the previously undiscovered challenges in students' social media usage.

2.4 Social media addiction

Students' usage of social media has become a source of concern and has sparked public outrage globally. This prompts numerous academics worldwide to study the subject from a psychological point of view and sociological standpoint. Like any other place in the world (Azizi et al., 2019), social media users in Zambia can be influenced by social media addiction. Despite that, finding literature on this topical issue in colleges of education in Zambia appears to be lacking (Akakandelwa & Walubita, 2017).

Social media addiction is a phenomenon developing at a rapid pace. However, one controversial aspect is that addiction has not been clearly defined across disciplines due to its varying assumptions and definitions (Shaffer, 1996; Vaghefi & Lapointe, 2014; Andreassen et al., 2017). For example, when experts examine the causes of social media addiction, they discover that they resemble those of other addictions, such as drug addicts, making it more challenging to clearly define the concept (Kuss et al., 2014; Andreassen et al., 2016). Moreover, addiction is traditionally associated with a medical model, and it denotes a strong physical or psychological need and devotion to a physical thing (Kuss et al., 2014). This adds to the difficulties of fully comprehending the concept of social media addiction.

Amplifying the above argument, close analysis of the presentations and discussion on social media addictions highlights opinions that are not always similar. The arguments are based on the current controversy on whether social media addiction is real. This lack of comprehension is predominantly a grave concern in the context of contemporary students as they are spending more time online interacting (Niranjjan et al., 2017). However, a plethora of researchers across the globe disagree on whether addiction to social media is conceivable. For example, in his argument, Stone (2012) highlighted that an individual enjoys being on social media platforms, and being active does not make him an addict per se. Others added that excessive social media usage does not primarily indicate social media addiction (Jelenchick et al., 2013).

In construct, for example, Dau (2015) conducted a study in Nigeria to determine how students were addicted to social media. According to the survey, most respondents (55.5%) were heavily hooked to social networking sites. This was followed by 28.4 percent of moderately addicted

respondents and 16.1 percent of those not addicted to social media. Overall findings showed that most students were addicted to social media. The results of the study entail that social media addiction is real. In an attempt to clear the mess of confusion, other experts argue that "addiction should be treated to cover a broader behavioral domain" (Shaffer, 1996: 462), including social and psychological behaviors. In support, Kuss et al. (2014) suggested the idea of technology addiction in this context, and they define technology addiction as non-chemical but behavioral activities involving excessive human contact. In this regard, technology addiction is depicted as a passive habit characterized by spending more time watching television, playing video games, and chatting online.

From the discussion above, it is possible to agree that the notion of social media indeed carries mixed assumptions that require continuous examining. Despite the many inconsistencies surrounding the idea of social media addiction, it is possible to indicate that it is highly plausible and dangerous. The DSM-5 classifies it as a common and serious medical condition (American Psychiatric Association. 2014). In fact, in psychology, addiction usually refers to the ingestion of a substance, preceded by dependence (American Psychological Association, 2014). It also refers to mental concern over the use of social media based on the allocation of time to the media so that it affects other social activities (Andreassen et al., 2017). In addition, Niranjjan et al. (2017) define social media addiction as a set of psychological, physical, and social issues that affect individuals of all ages who spend too much time on social media. Such individuals struggle to meet their personal, social, educational, and professional obligations.

In this regard, this study joins the position of other researchers in showing that social media addiction occurs when a student has a strong urge to be on social media (Mohammadi et al., 2018). A condition gets so powerful that users face challenges when attempting to wean off (Andreassen et al., 2017). In this context, addictive use is characterized by being overly concerned about online activities, driven by an uncontrollable motivation to perform the behavior. It is a behavioral aspect that helps individuals devote so much time and effort to it, such that it impairs other significant life areas (Andreassen et al., 2017). Addictions are about satisfying an urge. In social media addiction, the desire is yearning for connection to the multitudes at any given time. Given the easy accessibility of social media nearly everywhere, it

is difficult to resist the addicting desires. However, one crucial aspect of addiction is that many people are ignorant of the dangers of social media addiction (Andreassen et al., 2017). As a result, more investigation is required.

Besides, studies indicate that using social media is not just logging in once or twice a week to check e-mails or what has come up. It is a trend where students act with captivity as they cannot stop themselves from continually visiting the sites (Kuss & Lopez-Fernandez, 2019). Andreassen et al. (2017) indicated that addiction is a behavior that compels an individual's attention to visit and communicate through social networks for a significant amount of time. Such individuals significantly lose a sense of time control as they frequently use social media (Jelenchick et al., 2013). They intend to escape harmful consequences, but ultimately, most fail to break free from their dependency. The notion supports Andreassen et al. (2017), who indicated that social media addiction comes with certain elements. These include failing to separate from social media for a while, driven by an uncontrollable motivation to log on or visit or use social media.

Given the preceding evidence, it is reasonable to state that students significantly lose a sense of time control as they use social media uncontrollably. Such an experience could lead to dangerous online social media use, which could eventually develop into social media addiction and severely influence their psychological and social well-being. Social media is neither innately positive nor harmful in terms of its effects on users' well-being. Instead, its effects are determined mainly by how it is applied. Hence, due to the ever-increasing captivity of social media platforms, it is conceivable to assume that addiction to social media is an ever-increasing challenge in the twenty-first century. It is a significant issue likely to intensify in the near future. The instability of social media platforms cannot be underestimated because they have become a medium for interaction and idea generation among students. Thus, more research seems vital to comprehend the concept of social media addiction among the student fully.

2.5 An empirical review of the literature

This sub-section compiles and analyses previous empirical studies on social media usage, addiction, and possible consequences. As a reminder, literature has been organized according to research objectives. These include the extent to which students use social media, demographic

influence on the usage of social media, the motivations behind social media use and the level of student addiction. It concludes with a literature review on the possible repercussions of social media addiction among students. Alternatively, to avoid duplication of review, some evidence has been combined in some objectives guiding the literature.

2.5.1 Extent use of social media

Literature on the extent of social media usage has been uncovered based on object one, which was presented in chapter one. The literature has been organized into categories, namely; the most frequently used social media sites, the length of time students have been using social media, and the frequency of use during each visit. It concludes by uncovering literature on the number of online friends.

Millions of people, particularly the younger generations, use social media platforms like Facebook, WhatsApp, and Twitter, and many of them have integrated these sites into their daily social lives (Kuss & Lopez-Fernandez, 2019). However, as social media grows in popularity, a number of studies examining college students' social media platform preferences and usage have also increased. Previous research worth mentioning on commonly used ones includes a study by Pempek et al. (2009). The scholars in this study researched at a private university in the United States of America (USA) using a total sample of 92 students. The study sought to discover "how much," "why," and "how" students use social media platforms. The study showed that Facebook was the most commonly used platform among students and it also showed that students spent 28 minutes daily on Facebook.

A critical study was conducted by Nuskiya (2017), who adopted a qualitative method to establish the impact of social media use among Sri Lankan students. The study utilized a stratified random sampling method to select the 100 students as the sample size. The study's findings indicated that Facebook was the students' most used platform. Regardless of the outcome, the two studies (Pempek et al., 2009; Nuskiya, 2017) appear questionable due to the small sample size used to establish the outcomes. Statistically, a larger sample size may provide more accurate information on such measures than a smaller sample size (Creswell & Creswell, 2018). The situation necessitates the consideration of the sample size to address the gap.

Another critical study was conducted by Rousseau and Puttaraju (2014) on Social Networking sites among young adults in Bangalore. The study found that Facebook was a leading media platform used mainly by students. Similarly, a survey was conducted by Owusu-Acheaw and Larson (2015) in Ghana. The study sought to assess students' social media usage and its adverse effect on tertiary institutions' academic performance. Collected data were analyzed using the Statistical Package for Social Science (SPSS). What was concluded from the survey was that Facebook was the most used social media platform, followed by WhatsApp then Twitter. Equally, Shilip and Arun-Kanti (2019) found that social media has been primarily used for chatting. Furthermore, the study revealed that Facebook (63.7%) was the most utilized media platform, which was followed by YouTube (19.5).

Even though the given studies above utilized larger sample sizes, the outcomes in these studies appear unsettled as they did not consider a broader viewpoint of different types of platforms. Considering several platforms in a study, may provide appropriate evidence on the popularity of each platform (Akakandelwa & Walubita, 2017). However, it must be noted that some platforms, such as Facebook, have maintained their popularity and stability (Facebook, 2020). Mainly, the Facebook platform has been extensively researched on and discussed than other platforms. Though, interestingly it has continually revealed similar evidence in its popularity (Owusu-Acheaw & Larson, 2015; Asiedu & Badu, 2018; Nyagah et al., 2019). Therefore, more information seems vital with regard to varying social media platforms.

However, other scholars found contradictive evidence on the most commonly used platforms by the students. For example, nearly a decade ago, Bicen and Cavus (2010) evaluated social media platforms' usage among the students in the department of computer education institution technology. The study aimed to come up with evidence on the preferred social media platforms students relied on most. The study's finding revealed that live spaces and Facebook were the platform students mostly used, and the motivation behind the adoption and usage was based on knowledge sharing online. In a study that was conducted by Shao and Hassan (2014) among the students of the University of Dodoma found that students often used Wikipedia (15.9%), Facebook (15.6%), Google (14.6%) and YouTube (14.5%).

A recent study by Rautela et al. (2019) used a sample of 200 students, highlighting that nearly every student uses WhatsApp a platform that helps them satisfy their social desires. Other different findings were obtained by Saleen and Mengyan (2017). The two researchers used a cross-sectional survey to explore the difference between the four social media platform (Facebook, Snapchat, Instagram and Twitter). The study utilised a sample size of 309 college student. These participants were recruited online and completed the survey anonymously through qualtrics.com at Muchigan state University. Furthermore, the study adopted the U & GT theoretical framework, to interpret the tale of platform regarding time spent on each and the intent of use. Analysis of the data revealed variations of information. Unlike in other researches, the study indicated that students spent most of their daily time on Instagram, Snapchat followed this. Interestingly, Facebook, the most commonly used platforms in other researches, came third in the analysis while Twitter was the least utilised.

Other contradictory findings were found in a study conducted in Singapore by Nasirudeen et al. (2017) on the effects of social media usage on daytime sleepiness among college students. The study found that Facebook was no longer the predominantly used social media platform by students in Singapore. The same study further established that WhatsApp was mostly used in terms of time spent and daily usage while LinkedIn ranked the lowest. Equally, a research entitled "Usage of Online Social Networking Sites among School Students of Siliguri was carried out by Raj et al. (2018) in India. The study aimed to determine the pattern of students' use of social media and its influence on their academic performance. The study's findings revealed that WhatsApp (82.2%) was the most commonly used platform among the students; Facebook followed this (75.1%. Similarly, the three separate studies done in Ghana, Kenya and Zambia in different years and on diverse demographic population revealed that WhatsApp was the most widely used platform. It was followed by Facebook (Ahad & Lim, 2014; Mingle & Adams, 2015; Akakandelwa & Walubita, 2017; Nuskiya, 2017; Shilip & Arun-Kanti, 2019).

In this regard, the variations incurred in other studies on the social media platforms adoptions could be attributed to varying methods and lack of consideration of newer platforms in their studies, thus creating potential gaps. For example, Nuskiya (2017) used qualitative research that utilized a small sample which did not provide adequate evidence on the commonly used social

platform among the large population of students. Hence generalization of the outcome seems to be misplaced. Other reasons seem to hinge on the number of newer platforms not utilized in various studies. For example, in their research, Shilip and Arun-Kanti (2019) revealed that Facebook (63.7%) was the most used media platform, followed by YouTube (19.5). Despite the outcome, the scholars did not consider the newer social media platforms. Literature has reviewed that social media platforms are continually evolving. As such, contemporary students may opt for the newer platform, which received less consideration in their studies. It is vital to employ both older and more recent platforms to close the gap identified in literature.

When it comes to the length of time students, have been using social media, and how much time they spend per social media visit, the literature holds a variety of assumptions that necessitate further research to account for variations. Despite such argument, they are a consensus among scholars that one of the demographics that have primarily accepted social media technology into their lives is the contemporary college-age students (Ahmer & Tanzil, 2018). The reason for this is because computers have been available in their homes and at school throughout their childhood, and the smartphone became a part of daily life at a young age (Anderson & Slemp, 2011; Manasijevic et al., 2016). In this regard, it is possible to infer that a significant proportion of students began utilizing social media at a young age. For instance, Win et al. (2017) conducted a cross-section study to assess the students' prevalence of social media addiction, the prevalence of anxiety, and determine the social media addiction at Kyauke University. The study used a sample of 400 students aged 16-23 years. Results indicate that most of the students had been using social media for more than three years, some possibly as far back as 2013.

Regarding the amount of time, studies suggest that college students spend a significant portion of their daily lives on social media websites (Smith & Anderson, 2018). The extracted conduct indicates that the youthful groups tended to spend more time on their apps, focusing on those that gave them instant gratifications. In their paper, Lenhart et al. (2015) found that 92% of young adults in the group of college students in the USA went online daily. It also indicated that 24 percent used to go online almost constantly. Equally, Anderson and Slemp (2011) claimed that students spent 100 minutes per day on average. The study also reported that students were inclined to use social media so much that they failed to manage their daily scheduled activities.

In one study that constituted 5,414 college students done by Junco (2011), students used to visit the Facebook platform with a mean of 5.75 times per day. The results indicated that students spent about 1 hour and 40 minutes per day on Facebook (Junco, 2011). Equally, Quan-Haase and Young (2010) found that 82% of college students reported logging into Facebook several times a day. While, Knight-McCor et al. (2016), in their study, noted that college students use these networks 1-5 hours each day and more on weekends. Similarly, a survey study conducted by Owusu-Acheaw and Larson (2015) concluded that most students used to visit social media platforms and spent between 30 to 3 hours daily. In another related study, Hussain and Arasad (2013) carried out the study to explore how far the Ethiopian youths were addicted to social networks based on youths' age and gender dynamics regarding social networks addiction. This survey's findings revealed that most Ethiopian youths spent 30-60 minutes per session; they visited their social networks once in a few days, and they were addicted.

Equally, Shilip and Arun-Kanti (2019) conducted a study in Bangladesh. The study utilized a sample of 502 students who were obtained using a convenience sampling technique, and a descriptive-comparative research design was adopted. The study aimed to establish the impact of social media usage among the students. Evidence yielded from the study indicated that all the students were social media users, and the overwhelming numbers of the participants were utilizing more than one social media platform. It was also recognized that students were spending more than 1 hour on various social media daily. Another recent study by Alnjadat et al. (2019) aimed to evaluate gender differences amongst students at the University of Sharjah (UoS) for speculating the impact of social media usage revealed that the average time spent on social media usage used to be 2 to 3 hours in a day.

Here in Zambia, Akakandelwa and Walubita (2017) conducted a study to determine how social media usage affects the students' social life using a total sample of 244 full-time students in the school of education. A descriptive, exploratory study was used to explore the variables, which were analyzed using the Statistical Package for the Social Sciences (SPSS) version 23. Results affirmed that students spent between 31 to 60 minutes daily visiting social media. Despite the obtained results, the study appears inconclusive as it did not involve some learning institutions of different statuses, thus creating a gap. Precisely, the study was carried out in Lusaka and was

narrowly limited to only University students of one institution (University of Zambia). Hence the gap calls for the consideration of other institutions of different academic levels, both private and public, in other places in an attempt to have a clear picture of the situation.

Concerning the number of social media friends, a study done by Buran & Doğan (2018) tried to shed more light on the issue. The study analyzed the psychological dimensions of social media addiction in young adults. The study's findings indicated that students had more than 250 online friends. In contrast, in their paper, Petersen & Johnston (2015) aim to examine the impact of social media usage on university students' cognitive, social capital in the Western Cape Province of South Africa. Facebook and Twitter platforms were selected as part of the research context because both were popular online social network systems. Data was collected from a survey questionnaire completed by over 100 students from all five universities. The study's findings asserted that students had between 301 to 400 Facebook friends.

In another related study done by Johnston et al. (2013). The study looked at Facebook's impact on the formation or maintenance of social capital among South African university students. Over 800 students from seven institutions filled out questionnaires, which were used to collect data. The study indicated that students had between 100-150 Facebook friends. Despite data from other areas of the world, documentation on the number of social media followers on Zambian students appears to be uncommon. As a result, the situation calls for analysis on the number of online acquaintances to adequately reveal elements that lead students to spend more time online.

Given the foregoing on social media usage, one may wonder where students are heading based on the significant amount of time they spend online. The literature mainly from outside Zambia suggests that college students spend a substantial portion of their daily lives online. Some studies have pointed at having many social media friends that enhance their online gratifications as they interact. In this regard, literature depicts a gloomy picture of social media gratifications which requires further investigation even in other places, particularly in the college of education on the Copperbelt, as Zambia social media literature appears to be scattered. Hence more research seems to be warranted to understand the situation entirely.

2.5.2 Demographic Usage of Social Media

Literature globally has offered a variety of perspectives on the extent to which students use social media by demographic. Therefore, the subsequent paragraph presents associated literature on four demographic factors, namely gender, age, academic year, and college statuses with regard to students' usage of social media in varying institutions.

2.5.2.1 Gender verse social media addiction.

Many people assume that males and females have distinct interests in accomplishing things and paying attention to them. The revelation has nothing to do with being a superior or inferior person. They each have their own set of advantages and disadvantages. Some items may be appealing to males yet be uninteresting to females, and vice versa. However, there are some situations where females devote more undivided attention. Males may not have much or any interest in such things.The disparities in male and female interests can also be seen when using social media. According to global statistical analysis, 44 percent of Facebook users identify as female, while 56 percent identify as male. Female Instagram users account for 50.4 percent of all users, while male Instagram users account for 49.4 percent (Kemp, 2018).Even though the percentages of female and male users of social media platforms are nearly identical; it is thought that females spend more time on social media than males.

Based on the preceding argument, scholars in different regions have also found conflicting evidences. For example, in their studies, the Pew Research Center (2015) found that females spend 46 minutes on social media, whereas males spend 31 minutes on average per social media visit. In contrast, others have reported that students, particularly females, spend a good number of hours interacting with various media platforms (Lenhart et al., 2010; Duggan & Brenner, 2013; Tang et al., 2017; Andreassen et al., 2017; Akakandelwa & Walubita, 2017; Yang et al., 2018). Worse still, these studies have advanced varying evidence on the adoption and usage of social media. For example, Tang et al. (2017) investigated addiction to online gaming, and social networking among youth in Singapore, the United States, and China. The study sample consisted of 3267 students aged between 18 and 25 years. Psychological research instruments were used to assess various Internet-related addictions and depressive symptoms. The study found that female students utilized more social media than male students (female 37.3%, male 27.8%).

Furthermore, a study by Rosen et al. (2011) has also demonstrated that females tend to share more photos and spend more time on social media platforms than males. Accordingly, men are more interested in entertainment and activities than women are in maintaining relationships (Rosen et al., 2011). In that case, it is prudent to argue that women use social networking sites to remain in touch with their friends, while males prefer to use social networking sites to meet new people (Barker, 2009). One study backed this argument, revealing that females were more at risk as they scored higher usage levels in interactivity (Andreassen et al., 2017). In contrast, men develop problematic use of more social activities, such as gaming (Andreassen et al., 2017). In another related cross-sectional study (Garmah & Rida, 2020) among Moroccan students, a gender discrepancy was found. The study also discovered that female students were more addicted to the Internet than their male counterparts.

In another relevant study, Simsek et al. (2017) conducted comparative research on social media addiction among Turkish students. The sample size consisted of 700 students; 345 were female and 355 were male. A Likert scale consisting of two phases was utilized to collect the respondents' relevant data. The first part required participants to provide personal information regarding their gender, department, duration of daily use of social media, and mobile phone ownership. The participants were given questions in a structural form. The researcher utilized the BFAS in the second phase, with a Cronbach's alpha reliability coefficient of .90. The data, which were analyzed using both descriptive and inferential statistical techniques, revealed that female students' mean score (M = 2, 54) was higher than male students' mean score (M = 2, 35). However, the results discovered by Simsek et al. (2017) appear inconclusive based on the statistical package used. The researchers relied solely on percentages and descriptive data. Research guides by indicating that larger samples, like in the case of Simsek et al. (700), require more advanced statistical analysis to obtain an accurate conclusion (Statistics, 2015). As a result, more research with more advanced statistics is required to accurately argue the results.

In contrast, some studies reflected a reversal in the results when they investigated the variables of gender and age in particular. For example, Correa et al. (2010) studied personality traits and social media use among USA adults. The findings differed by gender and age. In that case, it was established that males were the regular users of social media more than females. In another

related study, Raj et al. (2018) showed a minimal difference in the usage of social media by gender (M-71.6/F 69.7%). Equally, Choudhury and Ali (2020) carried out a cross-sectional survey design among college-going youth (160 male and 321 female) from different colleges in the Kamrup Metropolis. A purposive sampling technique was used to sample the participants. BSMAS and the semi-structured tool were used to collect data. The study found a substantial difference in social media usage between male and female participants (Mean rank = 216.29-M and 253.32-F), with a p-value of.001.

Equally, Alnjadat et al. (2019) carried out a study that aimed to evaluate gender differences amongst students at the University of Sharjah (UoS) to predict the impact of social media usage among students. The study discovered that males were utilising social media more than females (M 49.6%) and females (F 32%). In their research, Bányai et al. (2017) revealed a significant difference in weekly social media use between male and female adolescents, while a study done by Mutisya et al. (2019) found that females (47.43%) were less addicted to online social networking compared to males (52.57%).

In another related study, Azizi et al. (2019) carried out a cross-sectional survey study to investigate the relationship between social networking addiction and students' academic performance at KUMS in Iran. The target sample population was 360 students enrolled by stratified random sampling. The study tools included a personal information form and the BSMAS. In terms of gender, no evidence of comparison between males and females was made. As such, the study found that the mean addiction was higher in male students (52.65 ± 11.50) than in female students (49.35 ± 13.96). Equally, Krcaburun (2016) also examined the relationship between gender, personality traits, and Twitter addiction. The study group consisted of 365 undergraduate students enrolled at the state university in the western region of the Black Sea. The study revealed that the usage levels of social media among the male students were significantly higher than females. Results also supported that gender positively predicted Twitter addiction among the student.

Other contradicting findings include Olowu and Seri's (2012) study, which discovered that males use social media more than females. Jafarkarimi et al. (2016) also surveyed Malaysian students.

According to the study, there was no substantial difference between men and women regarding Facebook addiction. Equally, Hossain & Prodhan (2020) conducted a study using 278 University Students in Bangladesh. Students participated in the research, where 54.32% were males, and 45.68% were females. The result revealed that majorities of males and females were starting to use social media in the age group of 14 to 18. However, in terms of gender variations, the study found that there was no statistically significant relation between males (97.35%) and female (95.28%) students in social media usage ($\chi 2=0.857$, $p=0.355$).

Recently, Pérez et al. (2021) carried out a study to analyze and determine the degree of addiction of young students from twelve Spanish universities. The "Social Media Addiction Scale-Student Form" was used to collect information from 1870 students drawn from seven autonomous communities (Andalusia, Asturias, Castile and Leon, Catalonia, Galicia, Murcia, and the Basque Country). The results showed significant differences between the students of the different autonomous communities. The study discovered no general differences between males and females. Afacan and Ozbek (2019) discovered similar results in a survey conducted in Kirsehir, Turkey, using a total sample of 596 students studying at three different academic achievement levels. SMAS, developed by Tutgun-Unal, a social media addiction scale, was used to examine the variables. It was found that students had a low level of social media usage. In contrast, no significant difference was found in terms of gender variables.

2.5.2.2 Age verse social media addiction.

Another demographic factor that is strongly linked to social media usage is age. Literature holds that the majority of social media users are young (Andreassen et al., 2017). Current youth are growing up in a cultural setting where social media mediates many aspects of their lives. Many of their experiences and opportunities are shaped by their engagement with social media (Raj et al., 2018). It is also apparent that young individuals adapt to new technology more quickly than elderly ones (Bányai et al., 2017). According to Undiyaundeye (2014), more than 80% of young people spend significant time on social media. Since they get access at an early age, they are exposed to spending a lot of time on it. This implies that today's youngsters had access to the Internet since they were very young, thanks to their parents. Young people spend more time using technology and media than older people, and they do this more often than older ones.

According to a national research study by Pew Internet (Madden & Zickuhr, 2011), over eight out of ten social media users between the ages of 18 and 29 use social media platforms, compared to seven out of ten between the ages of 30-49. Half of those between the ages of 50-64, and one-third of those aged 65 and older. This was also supported by Young (2014), who discovered that most social media users were young people aged 18 to 25 in her survey. These youngsters are referred to as "always-on," indicating that they spend most of their time on social media devices. In their survey, Hampton et al. (2011) discovered that the 18–35 age groups accounted for 48% of all social networking site users.Equally, Gazi et al. (2017) carried out a study using 350 respondents aged 18 and above to identify statistically significant differences between the social media addiction levels of users based on gender, age, educational situation, daily social media use time, and tool used. The study's findings indicated no significant difference between participants' age and social media dependence.

In another related study, Kirik et al. (2015) discovered that age was strongly associated with social media addiction among young Turkish people aged fourteen to eighteen years old. They found that addiction levels were much lower in fourteen-year-olds, but addiction levels rose as age progressed. Other studies demonstrated that those aged 20–34 years reported the highest level of mobile phone usage, while those aged 12–19 years reported the lowest level (Csibi et al., 2019). However, Jafarkarimi et al. (2016) discovered no significant difference in age and Facebook addiction among Malaysian college students under 29 years old.

In another similar study, Andreassen et al. (2017) conducted a cross-section study to examine the association between addictive uses of social media, narcissism, and self-esteem using a total sample of 23532 participants. The sample comprised 8234 men, representing 35% and 15298 women, representing 65%, and all the participants were between 16 and 85 years old. The study utilized descriptive statistics to examine the demographic difference in addiction scores on the Bergen Social Media Addiction Scale (BSMAS) using variance analysis (ANOVA). The study's findings reported that social media addiction scores were higher among the younger groups than those older. For example, in between 16 and 30 years, the difference was 16 (40.7%) higher addictive percentage levels, while 30 (25.0%) and above showed lower addictive percentage levels.

Equally, it was also reported in the earlier study done by Lenhart (2009) that social media was dominantly used by young adults under the age of 25. Another similar study was carried out in Ghana by Asiedu and Badu (2018). The investigation disclosed that those aged 18 to 24 years had high social media usage ability compared to the other groups, aged over 25 years. A study called "Usage of Online Social Networking Sites among School Students of Siliguri in India" was carried out by Raj et al. (2018) to determine students' social media usage patterns and how they affect academic performance. The study revealed the proportion of addicted students to be significantly higher among those aged 17 and older. Discovery signifies that students' time on social media is associated with social media addiction.

2.5.2.3 Academic year verse social media addiction.

On the year of study in learning institutions, traceable studies include the one conducted by Cam and Isbulan (2012) at Sakarya University's College of Education, a survey to determine Facebook addiction among teacher candidates. A quantitative model was employed in the investigation. The Facebook Addiction Scale was utilized to collect data, and t-Test and ANOVA analyses were used to determine any variation in gender and class based on Facebook addiction. Accordingly, results showed a considerable difference between gender and class in Facebook addiction. Males were shown to have higher degrees of Facebook addiction than females. Furthermore, it was discovered that seniors had higher levels of Facebook usage than juniors, sophomores, and freshmen.

However, three years later, Junco (2015) disapproved Cam and Isbulan's findings when he undertook a study to look at how much time students of various class ranks spent on Facebook, how much time they spent multitasking on Facebook, and what activities they did on the site. His findings showed that seniors spent much less time on Facebook and significantly less time multitasking with Facebook than students in other grades. Results indicated that when students progressed from first to second and then third year, their social media usage decreased each year. The arguments of Junco (2015) were later supported by a study that was conducted in Nairobi, Kenya, entitled "Demographic Differences in Online Social Networking Addiction among Undergraduate University Students," by Mutisya et al. (2019). This research adopted a mixed-method sequential research design. The sample size was 385 respondents, obtained with the help

of Godden's (2004) formula for calculating sample size. Data was collected using questionnaires and a social media addiction scale (SMAS). The findings of the study indicated that the first years (24.57%) were more addicted to online social networking, while the fourth years (18.86%) had the least addiction. The contractions leave a gap that requires further examination.

Sutherland et al. (2018) explored student social media use and its influence on offline engagement within the broader university community. 647 students enrolled in seven courses across five disciplines were sampled; advertising, design, public relations, public communication, and psychology. The most important conclusion drawn from the study was that students in their later years had a deeper connection to their university community after following them on social media. They also used social media regularly to interact with their university community. This study assumed that students in their final years of courses had had more time to develop relationships with college peers and a sense of belonging within their college community, but it could also be that first-year students had not yet learned how to use social media outside of a social context within their existing networks.

Barnes (2017) examined the Facebook statuses of 26 first-year students at four crucial times during their transition to learning institutions: orientation week, first assignment, end of the first semester, and end of the academic year. The research looked at how first-year students utilized Facebook to negotiate their social integration in an institution. The degree to which students feel connected to members of their college community (peers, academic and professional staff), their surroundings, and the extent to which they participate in college activities was defined as social integration (Barnes, 2017).According to the Barnes study, Facebook played an important role in helping participants navigate their first year of university, and it was highly favored.

2.5.2.4 College status verse social media addiction.

On College status, Ahmer and Tanzil (2018) carried a cross-section study on government and private institutions in Karachi, Pakistan. The study aimed to establish the frequency and intensity of Internet addiction among social media platform users in private and government colleges. Open Epi software instrument was utilized to come up with 340 college participants. The sample was drawn from a public medical college (Jinnah Sindl Medical University) and private medical

(Liaqual College of Medical Dentists). Internet addiction was measured using Young's Internet addiction test. Results obtained from the study showed that government medical colleges had a higher frequency of social media usage than private medical college participants. Conclusively, the discrepancy noted did not show a statistically significant difference.

Onother related study conducted by Mutisya et al. (2019) found that private learning institutions sponsored by religious institutions were more addicted to social media. In contrast, students in public institution not sponsored by religious institutions were less addicted. In another study, Cruz et al. (2018) evaluated public and private high school students (N = 254, Mage = 15.1, SD = 1.3) in the city of São Paulo concerning their Internet use patterns and quality life. The study utilized the Internet Addiction Test and the Pediatric Quality of Life Inventory to collect data. About 70% of the students had moderate Internet addiction. Students in public schools had greater levels of Internet addiction (p 0.001) than students in private schools. Regarding the quality of life, individuals who attended a private school had higher academic performance (p 0.01) but lower social performance (p 0.05). The findings showed a clear link between Internet addiction and low quality of life.

Equally, a study entitled "A Survey of Facebook Addiction Level among Selected Nigerian University Undergraduates" was done by Alabi (2013) using a total sample of 1000 undergraduates from four universities in South-west Nigeria. Data were generated with Facebook Addiction Symptoms Scale (FASS). The researcher developed and validated FASS yielded a reliability coefficient of 0.73 (Cronbach Alpha). Data were analyzed with simple percentages, cross-tabulation, and t-test. The study reveals low-level addiction (1.6%), particularly among students in private institutions compared to public ones. The variations were ascribed to disparities in the economic backgrounds of the students. The majority of students at private colleges came from wealthy families with easy access to the internet and other amenities. In another related study, Mingle et al. (2016) conducted comparative research of social media usage and academic achievement in public and private schools. The survey approach was utilized to collect responses from participants in the study. According to the survey, most respondents in private institutions spent more time online than their counterparts from public institutions.

Ramesh Masthi et al. (2018) conducted a comparative cross-sectional study on Social Media Usage and Health Status among Students Studying at Pre-University Colleges in Urban Bengaluru. A total of 760 subjects were recruited, 380 from public and 380 from private high schools. A Chi-square test and Z-test for proportions were used to compare groups. According to the findings, the most widely utilized social media applications in public schools were Internet gaming (69.23 percent) and WhatsApp (61.15 percent) in private schools. Although private school students were more prone to social media addiction than their peers, the general prevalence of social media across all students was mild addiction.

In a nutshell, literature from throughout the world has presented a variety of arguments regarding the demographic use of social media. Some produce conflicting conclusions between male and female students, young and old students, academic levels, and private and public colleges. This shows that there are variations among academics regarding the demographics of social media usage among students, resulting in a gap which in turn necessitates additional research. Regardless of the outcome, there appear to be problems with specific study methodologies in the literature. For example, on the question of sample size, some studies employed a large sample size while others used a small sample size. In most cases, quantitative research necessitates a large sample size to generate reliable results that can be easily generalized to other areas (Creswell & Creswell, 2018). Thus, a limited sample size might lead to inaccurate conclusions, leading to contradictions. Furthermore, varying statistical programs may also contribute to variations in some studies. Some research, for example, merely uses percentages and descriptive statistics. They do not use more complex statistics such as the binary regression statistical package to evaluate the results further and derive actual meaning from the data gathered. Thus, the issue of methodology appears to be a critical aspect that needs further consideration.

2.5.3 Motivation for Social Media Use

Motivation implies being moved to do something or enthusiasm for a particular activity (Ryan & Deci, 2000). As such, motivation is a natural human tendency. Motivation has been confirmed as a critical determinant of general behavior in human beings, encompassing two kinds of its nature, namely extrinsic and intrinsic (Munsaka & Matafwali, 2013). The two psychological concepts have been defined and examined in various social media studies (Cramer & Inkster 2017; Zhang

et al., 2018). Intrinsic motivation denotes the performance of action out of interest or enjoyment. In contrast, extrinsic motivation arises from an externally or socially created reason to act (Munsaka & Matafwali, 2013). Thus, social media motivators such as having a large number of social media friends for online interaction can trigger both extrinsic motivation and inner desire as students use social media (Ryan & Deci, 2000).

When social media users engage in social networking activities for extrinsic rewards, their motivation is entrenched in the social media environment's benefit rather than within their inner feeling motives. Conversely, intrinsic motivation exists within the social media consumer (Ryan & Deci, 2000). However, for intrinsic motivation to flourish, the social media environment must nurture it (EZumah, 2013). According to researchers, when an individual's intrinsic drive is missing, he or she will pay less attention to their work due to a lack of interest and enjoyment (Ryan & Deci, 2000). In that case, social media platforms should provide a favorite environment such as availability of the Internet, data bundles, a smartphone with user-friendly specifications on the functions, to mention but a few, to enhance its usage.

In this regard, Guliz & Basak (2018) examined how college students' intrinsic and extrinsic motivations for social media use are associated with their social media addiction levels. 220 students enrolled in a large, public university in Turkey were sampled and were subjected to an online survey. The results showed that extrinsic and intrinsic motivation factors correlated with college students' social media usage. For example, the study found that idle killing time, finding entertainment, getting away from pressures or responsibilities, and relaxing were intrinsic motivators that compelled the student to use social media. The extrinsic motivation factors were significantly associated with social media usage while facilitating interactions with family and friends. Equally, the study conducted by Nadkarni & Hofmann (2012) found that individuals were intrinsically motivated to use social media for two primary reasons. The reasons include belonging to a social media group and self-presentation. Hence, students' social media use focused on craving for social media friends for effective interaction. Such friends compelled students to enter into a self-propelled presentation to attain admiration. The study further indicated that students enjoyed commenting on nearly every posting seen online and posting the picture. They equally did private messages and tagged photos to a friend.

In another related study, Nicole (2007) found that students used social media to contact their peers, share information, and showcase their social life. The findings supported Asiedu and Badu's (2018) assertions that identified three factors namely, communication, collaboration, and content exchange. Other related results came from Kaya and Bicen (2016), who researched student motivations using a sample of 362 students who mostly use Facebook. According to the data, social media was primarily utilized for news sharing, communication, leisure, and video or photo sharing. Previous research that applied the U & GT in their study on social media sites indicated that gratifications vary depending on the platform and its use. According to one survey, the four most important motivations for using Instagram were surveillance/knowledge of others, documentation, coolness, and creativity (Sheldon & Bryant, 2016). According to the scholars, the most crucial determinant of Instagram use was surveillance/knowledge of others.

Equally, Mazman and Usluel (2011) examined the individual motives behind the use of social media; the study found that the Facebook platform was used mainly for four key factors, maintaining an existing relationship, making new companionship, academic purposes, and tracking specific agendas. Other researchers indicate that students use different platforms to seek gratification, which gives leisure or brings about enjoyment (Toma & Hancock, 2013). According to Ryan and Deci (2000), enjoyment is a form of intrinsic motivation based on natural drives for competence and self-determination. Enjoyment influences various behaviors and psychological processes in students' minds. Thus, social media promotes engaging in an activity for its own sake, out of interest, or the experience's pleasure and satisfaction.

Equally, a study called "college students' Use of Social media: Site Preference, Uses and Gratification Theory Revisited" was conducted by EZumah (2013). This study sought to identify and ascertain the factors influencing college students' choice or preference on platforms. The researcher used the online version of the questionnaire, administered through two modes: the survey monkey software strategy and a paper version issued in the classroom set up to 450 participants. The study disclosed that the degree of engagement, content uploading capability, ease of use, and capacity to search across a site were some of the factors that aroused students' interest.

Subsequently, the findings of an investigation conducted by Cramer and Inkster (2017) claimed that the motivations for visiting social media platforms lie in individual and communal participations. Despite having the two social media motives precisely in practice, these two aspects (Individual and collective) are closely linked and interchanged. Concerning the individual part, also called self-centered motivation, the gratification motives lead to personal gains. It includes self-expression, development of personal skills, peer feedback, building social networks, and social capital. At the same time, communal or community-related motivation for communities leads to specific help or assistance. These include sharing information and skills with others, new types of cooperation, and learning (Cramer & Inkster, 2017).

It is argued that social media has transformed information dissemination and has become knowledge resources for information seeking by college students. Social media platforms have increased opportunities for learning and interactivity in colleges. For example, a study done by Manasijevic et al. (2016) on Facebook usage for learning purposes revealed that lecturers and students share multimedia clips and graphical illustrations on social media as a strategy for teaching and learning. Thus, social media in education allows students to get more helpful information. Also, it helps to connect with learning groups and other educational systems that make education convenient. Rosmala and Rosmala (2012) conducted a study at three private universities in Indonesia. Findings revealed that 60% of students used social media for fun and disseminated academic-related information during working hours. They establish communication channels that support educational activities, such as announcements, reprogramming tasks, and communication for exam questions.

Equally, Al-Rahmi et al. (2014) researched to improve students' academic performance when social media is used through collaborative learning. Results show that social media affects students virtually when cooperative learning is done; it helps through interaction with peers. Equally, in their study, Hashim et al. (2016) discovered that students used media to search for academic-related content and feedback. Hence, it is assumed that social media platforms are also used for academic motives (Casale & Fioravanti, 2017).

On the other hand, some researchers have reiterated the findings on academic intent indicated in the preceding arguments. For example, Tiwari (2017) investigated the existence of Internet addiction among youth in Bhopal colleges through a questionnaire. The study concluded that most students used social media platforms not for educational purposes but just for entertainment and communication channels. Equally, a study by Shana (2012) indicated that students' extrinsically used social media primarily for social enhancement. The same study also indicated that only a few percentages (26%) of students use social media for academic purposes. Therefore, students used social media for the social gratifications of meeting new people and less for educational gratifications, and task management tools.

Besides, Manasijevic et al. (2016) indicate that the primary perceived reasons for using Facebook are association and recreation, not specifically for academic reasons. The study also reported that social media enhanced their ability to get close to famous people they adore. In another related study, Zhong (2020) published a study that looked into the school's implications of social media literacy. The study employed a qualitative method, relying on a focus group discussion among learners in a Jakarta international school. The researcher used observations, interviews, and document reviews to create the thematic analysis. A breakdown of the analysis clearly showed that most of the students used social media networking platforms to make new acquaintances and fulfill their social media requirements. As such, it could be indicated that academic success suffers in particular due to learners' inability to spend enough time learning in online learning environments. As a result, students may postpone academic work and spend more time on social media for various reasons, including enjoyment and making freinds (Casale & Fioravanti, 2017; Zhong, 2020).

Despite social media having numerous benefits (Cramer & Inkster, 2017), its motivation also seems more than its services. Some drawbacks can be listed, such as sharing inappropriate pictures and videos that might induce a lousy reputation for interpersonal relationships. Due to its known captivity, some students may indulge in sending unscrutinized and improper content to known and unknown social media friends (Rousseau et al., 2017). Such experiences may cause uncompromised behaviors, leading to adverse social life effects. In this aspect, examining why and how students use social media in varying areas seems crucially significant based on the

variation in students' intent in social media usage (Shana, 2012; Sheldon & Bryant, 2016). Giving a blind eye to the students' motives of social media use in respect of varying demographic factors may lead to silent invitations of more anticipated social media problems.

2.5.4 Level of student's addiction to social media

Literature globally has offered a variety of viewpoints on the levels of addiction among students who use social media. Therefore, the subsequent paragraph presents associated literature on the addiction levels among the students.

Al-Menayes (2015) carried out a cross-sectional survey design to assess social media addiction dimensions among Kuwaiti students. The study' sample size comprised 1327 undergraduate students who were purposively selected. The social addiction among students was measured using Young's internet addiction scale. The aspects of social media addiction among students were studied using factor analysis. Three factors were formulated to show the dimensions of social media addiction. In the first factor, the item in the scale with the highest mean was "I think about social media when I am away" (mean= 3.03; SD= 1.24). The item with the highest mean in the second factor was "I find myself using social media longer than intended" (mean= 4.20; SD= 0.95). Finally, in the third factor, the item with the highest mean was "I find life boring without social media" (mean=3.98; SD= 1.09). The study discovered that social media addiction has three distinct dimensions: the user's familiarity, time spent on social media, and social media satisfaction. According to the findings, most Kuwaiti students were addicted to social media.

In another related study, Mohammadi et al. (2018) conducted cross-sectional research at Kermanshah University in Iran to analyze medical students' Internet, smartphone, and social network addiction. The sample size was 350 people, and they were chosen using random and cluster sampling approaches. A social network addiction questionnaire was used to assess social network addiction. The constructs on the scale were scored on a five-point Likert scale (from 5=always to 0=rarely). The scale's scoring was divided into three categories: 1 to 25 represented a regular user, 26 to 49 showed that one was on the verge of being addicted to social media, and 50 to 75 indicated that one was addicted to social media. A breakdown of the analysis clearly showed that the mean score of Internet addiction was 40.05±20.69, while 19.6% of students did

not have an Internet addiction. The mild, moderate, and severe Internet addictions were 48.6%, 24.6%, and 7.2%, respectively. Further analysis of the data reveals that the students were classified as having a low level of addiction.

Folaranmi (2013) surveyed the level of addiction to Facebook among 1000 selected Nigerian University undergraduates sampled by employing stratified and purposive sampling techniques from four universities in South-west Nigeria. Data were generated with Facebook Addiction Symptoms Scale (FASS). The researcher developed and validated the scale, and it yielded a reliability coefficient of 0.73 (Cronbach Alpha). Data were analyzed with simple percentages, cross-tabulation, and t-test. The study findings revealed low-level addiction (1.6%), particularly among university undergraduates in private universities. However, it was argued that the low level obtained was due to a low level of Internet access. Araujo Robles (2016) tested the intensity of three social media addiction dimensions: the obsession for social networking, lack of personal control about using social networks, and excessive use of social networks. Results found low levels for all the assessed indicators among the students.

A study was conducted by Tutgun-Unal (2020) among university students from South Korea and Turkey. The study compared social media addiction among university students from South Korea and Turkey. The "Social Media Addiction Scale" originated by Tutgun-Ünal and Deniz (2015) was used in this study conducted with 270 university students. The study's finding indicated that social media addiction was low in both countries, while South Korean students' addiction results were higher than in Turkey. Equally, it was discovered that students in South Korea were getting more emotional support during social media use than their counterpart.

Additionally, Şahin (2017) conducted a study on University Students in Turkey. This study determined the relationship between social media addiction and life satisfaction among university students. The information was collected via "Demographical Information Form," "Social Media Addiction Scale: Adult Form," and "Life Satisfaction Scale" from 612 University Students. Discoveries of the study revealed that the student's level of social media addiction was low. In another related study, Ramesh et al. (2018) conducted comparative research on social media use and health stance among students studying in Pre-university colleges of Urban

Bengaluru in Indian. The study results revealed that students' social media addiction was 36.9%, distributed equally among private and Government universities. Further results further showed mild addiction levels in over one-third of sampled participants.

Afacan and Ozbek (2019) conducted a study to investigate students' social media addiction regarding variables such as age, class, type of school, gender, and daily average internet usage period. A survey method was used in the study. Social Media Addiction Scale" (SMAS) developed by Tutgun-Unal and Personal Information Form prepared by the researcher were used as data collection tools. The data were obtained from a total of 596 students in Turkey. When the students' total scores on the social media addiction scale were examined, it was determined that the students had a low level of addiction.

Although the preceding literature found low levels of addiction, several scholars questioned their findings as they produced conflicting outcomes of moderate levels, whereas others yielded higher levels. The situation creates a gap that requires substantiating it. For example, Otu (2015) utilized the Internet Addiction Test scale to assess students' social media addiction, which consisted of 13 items. Respondents were asked to respond to the frequency of behavior that best matched them. They were rated on a five Likert scale starting from not applicable to always and then scored from 0 to 5. Each respondent's scores were then added and classified into four categories to get the level of addiction. The four categories were 0 – 14 points to imply none, 15 – 29 points to indicate mildly addicted, 30 – 59 points to suggest moderately addicted, and 60–80 points to imply severely addicted. According to the research, most respondents (45%) were moderately addicted. They were followed by 36 percent of slightly addicted users and 19 percent of non-users of social media. The fewest (1%) of respondents were severely addicted.

Equally, Azizi et al. (2019) conducted a cross-sectional study to find out the relationship between social networking addiction and students' school performance in Iran. The study utilised a sample size of 360 students using stratified random sampling. Furthermore, the BSMAS was employed to collect the data, which late was analyzed using SPSS-18.0 and descriptive and inferential statistics. The study findings indicated that the students' excessive use of social media was moderate. However, male students had a higher level of addiction than female students.

In contrast, a study entitled "Investigating Social Media Usage and Addiction Levels among Undergraduate at the University of Ibadan was carried out by Idubor (2015). The study utilized a survey method of ex-post-facto design with a multistage sampling procedure to select 907 undergraduate students from 7 faculties in the University. The yielded information was analyzed using descriptive statistics and Pearson's product-moment correlation. Findings showed a high level of social media addiction among students. Conversely, Prakash and Nithiya (2015) examined the impact of social network addiction among college students. The study aimed to determine whether the students were addicted to social media sites or not and its impact on their academics. The study discovered that most students were heavily addicted to social media sites. Another interesting finding was that students used to face many hearing problems due to the heavy usage of the platforms. However, it was reported that the Indian Government was taking necessary steps to safeguard the Indian youth by blocking unnecessary proxy platforms.

Dau (2015) performed similar research in Northern Nigeria to determine how students were addicted to social media. The study's target demographic was students from four post-secondary institutions in Nigeria's Katsina state: Federal College of Education, Katsina University, Hassan Usman Katsina Polytechnic, and Umaru Musa Yaraduwa University are all located in Katsina. A total of 800 participants were chosen to participate in the study. According to the survey, most respondents (55.5%) were heavily hooked to social networking sites. This was followed by 28.4 percent of moderately addicted respondents and 16.1 percent of those not addicted to social media platforms. According to the findings, most students in that tertiary institution were heavily addicted to social media.

However, until now, research on the social media addiction level related to the proliferation of social media has been scattered, so the available knowledge of their probable interrelationships is still limited. This makes acquiring the broad viewpoint required for a fuller grasp of the benefits of these phenomena more difficult. Nevertheless, it is possible to conclude that students' social media addictive characteristics differ significantly. There are variations in the addiction levels among them. Some studies have shown low levels of addiction, others moderate or mild, whereas some have produced results of higher addiction. The situation creates a wide gap which

calls for further studies in different settings to have a clear picture of the phenomena. However, it is assumed that the disparities incurred could be caused by varying social media technological development which requires also extensive examination in diverse environments.

2.5.5 Potential Negative impacts of social media addiction

The literature in this category focuses on the possible impacts of social media addiction on the social life of students.The major subheadings described in the following literature are depression, anxiety, stress, and sleep deprivation.

2.5.5.1 Social Media Addiction and Depression

Addictive social media behavior has been described as one of the significant health problems in modern society (Cramer & Inkster, 2017), potentially generating depression (Pantic et al., 2012). According to Rhodes et al. (2013), depression is prevalent among individuals between 18 and 43 years, and it is a leading cause of psychological problems worldwide (WHO, 2017). Notably, college students are among the most researched groups in the area of depression (Pantic et al., 2012) because of their psychological and developmental characteristics (Munsaka & Matafwali, 2013). The situation is worrisome as depression affects many in the youthful population, considered a formative stage in human beings' lives (Primack et al., 2017).

Research by the American College Health Association (2008) indicates that the rate at which college students are diagnosed with depression increased from 10% in 2000 to 15% in 2006. Such results saw depression to be on the increase among college students. The study further reported that nearly 16% of college students suffer from depression at some point during their academic and life cycle on campus (ACHA, 2008). The situation has brought a growing public concern requiring formal elements in dealing with such psychological problems (ACHA, 2008). Worse, with the ongoing development of more captive social media apps, one may wonder how the social life of individual college students looks. Given the significant incidence of depression, which affects over 350 million people of all ages globally (WHO, 2017), it is worthwhile to investigate the possible link between social media addiction and depression in various settings, particularly in developing countries such as Zambia.

In recent years, several scholars outside Zambia have studied depression and addictive social media usage (Pantic et al., 2012; Kim et al., 2016; İbrahim, 2019; Kalkan & Bhat, 2020). Despite such efforts among researchers, there is no consensus on the association between social media and potential depression with regard to students. In their studies ome scholars achieved insignificant results, while others obtained significant outcomes. Similarly, others suggested a positive relationship, whereas others yielded contradicting results of negative relationships between the variables. Thus, research on social media use and depression is nuanced and mixed which neccessiates further researchers.

Based on the aftermentioned, Kırcaburun (2016) studied the direct and indirect impacts of self-esteem, day-to-day internet use, and social media addiction on adolescents' depression levels. The descriptive study was conducted using 1130 students aged between 12 and 18 who were enrolled in different schools in the southern region of the Aegean. Data were collected using the "Children's Depression Inventory," "Rosenberg Self-esteem Scale," and "Social Media Addiction Scale." The study revealed a significant relationship between depression, self-esteem, daily Internet use, and social media addiction. The study further discovered that depression was negatively but moderately associated with self-esteem.

Aydin et al. (2021) carried out a study using a sample of 419 who were between 18 and 62 in Turkey. The study aimed at investigating the effects of social media addiction on depression in adult individuals. The study analyzed whether social media dependence had a differing impact on various factors (age, gender, level of education, duration of daily use of social media, frequency of social media use). Social Media Dependence Scale (SMDS), Beck Depression Inventory scores, and demographic information from the participants were used to collect data. The finding indicated that increased use of social media tools like the Internet and smartphones in daily life resulted in potential depression symptoms. No significant difference was found when social media addiction was examined in gender among socio-demographic variables.

Similarly, Bilgin and Taş (2018) investigate the effects of perceived social support and psychological stability on social media addiction among university students in Turkey. Research participants were composed of 503 university students. The perceived social support scale,

psychological resilience scale, and social media addiction scale were used to collect data. The data obtained were analyzed with Pearson's correlation and hierarchic regression. A negative relationship was observed between perceived social support and social media addiction and psychological resilience and social media addiction. In another related study İbrahim (2019) surveyed the relationship between depression, anxiety, stress, social support, resilience, and its effect on Internet addiction among students. The study utilized a sample of 349 participants drawn from two different universities during the 2018-2019 academic year. Instruments used to collect data included; DASS, Internet addiction scale, perceived social support scale, personal information from, and resilience scale. Findings revealed a significant negative association between Internet addiction and depression, anxiety, and stress.

Equally, a study done by Elhai et al. (2016) utilized 308 participants from Amazon's Mechanical Turk labor market, revealing that Problematic smartphone use was most correlated with anxiety, need for touch, and FoMO. Additionally, the regularity in service was most correlated (inversely) with depression. An earlier study entitled "In Defense of the Internet: The Relationship between Internet Communication and Depression, Loneliness, Self-esteem, and Perceived Social Support" was done by Shaw and Gant (2002). Participants engaged in live chat sessions with an anonymous partner. Scales measuring depression, loneliness, self-esteem, and social support were administered to participants at three different intervals. The study's findings revealed a negative relation between Internet addiction and depression, respectively.

Contradicting the aftermentioned literature, Kalkan and Bhat (2020) researched the prevalence and degree of problematic Internet usage, online gaming behavior, and online gambling related to depression and quality of life among college students. The study sample comprised 112 undergraduate and graduate students at a large public Midwestern university in the USA. In contrast to other research previously examined, findings of the study revealed that dysfunctional online behaviors predicted a higher level of depression. Also, a positive link between problematic Internet usage and depression was identified. However, such findings raise questions regarding other variables related to depression and quality of life from problematic Internet use among college students. Equally, the study appears to be inconclusive based on the small number of participants utilized at such a large University. Hence, a large number seems to be appropriate.

A positive correlation was also evident in a recent study by Rahmatullah and Zhao (2020), which investigated the correlation between social media addiction and depression. The study was undertaken among university students in the Khost province of Afghanistan, utilizing Kimberly Young's Internet Addiction Test (IAT) to measure social media addiction. The total sample was 384 drawn from Shaikh Zayed University, Ahmad Shah Abdali University, and Pamir University. Findings on social media addiction indicated a positive correlation with depression which meant that as the level of addiction increased, even the level of depression increased.

Equally, Karaman (2019) conducted a cluster analysis study entitled 'Examining associations between social media use, depression, global health, and sleep disturbance among emerging.' The study adopted a sample of 261 Turkish college students to investigate the link between social media use and depression as well as sleep disturbance. Participants were classified into three categories using k-means cluster analysis: ordinary, none, mild and severe social media users. According to the findings, male college students were found to be more addicted to social media than females. The amount of time spent on media platforms was found to have a significant and positive relationship link with depression and sleep disturbance.

Subsequently, Simoncic et al. (2014) also found additional contracting results when they researched to investigate Facebook use and depressive symptomatology among the youth using a total sample of 237. Results of the study indicate no direct association between Facebook use and depressive symptoms. In another related study, Jelenchik et al. (2013) conducted a study to examine the link between social networking platform use and depression in older adolescents' university students. The sample completed an online survey containing the Patient Health Questionnaire-9 depression screen (PHQ) and a week-long ESM data collection period to assess social media usage. The results yielded indicated insignificant association between social media use and depression.

One cardinal issue regarding the phenomenon of social media addiction in connection to depression is that excessive usage of social media is connected with symptoms of depression. When a student tolerates addicted social media behavior, it implies that the student is at risk of developing depression symptoms. However, it is safe to state that some studies on excessive use

of social media and depression carry contradictory assumptions. Some studies have advanced that there is a direct association between excessive social media use and depression (Pantic et al., 2012; Rosen et al., 2013; Kalkan & Bhat, 2020). Other studies failed to replicate the previous findings. They indicate different views by stating that the relationship between addiction social media use and depression does not exist (Jelenchick et al., 2013; Simoncic et al., 2014), while others have yielded indirect relationship (Kırcaburun, 2016; Bilgin & Taş, 2018; TAŞ, 2019; Rahmatullah & Zhao, 2020). The noted discrepancy could hinge on the variables that were utilized. For example, many similar studies have only investigated one social media platform, primarily Facebook. Therefore, further research is needed, mainly using several social media platforms. The other disparities could also be explained in the variation of technological development that has engulfed the social media industry from one region to the other. Some social media technologies are more advance while others are not. Such diversity might lead to disparities in findings which warrant further research in other places.

2.5.5.2 Social Media Addiction and Anxiety

According to experts, anxiety is defined as a sensation of tension, nervousness, or apprehension accompanied by physiological arousal (Azher, 2014). When anxiety becomes chronic and unyielding, it can severely impact an individual's entire social and psychological well-being, often expanding to areas of life other than the source of concern (Rosen et al., 2013). As pointed out already, the heavy use of social media has increased rapidly over the past decade, especially among college students. Correspondingly, the impact of excessive social media uses regarding anxiety symptoms has also become a recent area of concern among academicians and researchers. Despite that, pieces of evidence for such a link have been mixed, thus creating a gap.

A study conducted in Britain found that 45% of the participants felt stressed or uncomfortable when they could not access their social networking sites (Anxiety UK, 2012). Research conducted by the Royal Society for Public Health in England revealed that the four platforms (Facebook, Instagram, Snapchat & Twitte) were problematic among users due to increased anxiety and fear of missing out (Cramer & Inkster, 2017). Similarly, in their findings, Afandi et al. (2013) reported that individuals who were not using platforms had better sleep quality than other users because they experienced less anxiety about visiting various platforms.

Furthermore, an investigation directed by Rosen et al. (2013) found that twenty to thirty-year-olds were inclined or have uneasiness about checking their social media gadgets, presumably because of a paranoid fear of missing social information. Likewise, it could be indicated that the younger generation feels restlessness when they cannot get messages from their companions. In another related study, Azher (2014) investigated the relationship between Internet addiction and students' anxiety levels using a sample of 300 students drawn from the master's classes at Sargodha University in Pakistan. Findings indicated the prevalence of Internet use in male than female students. The study also showed a significant positive relationship between Internet addiction and anxiety levels amongst the sample student.

Subsequently, a study was done by Baltacı (2019) to establish how well students' social anxiety, happiness, and loneliness levels predict their levels of social media addiction. The study adopted a correlational survey model comprising 312 students aged 19 and 25 in Turkey. The data was collected using a Social Media Addiction Scale, a Social Anxiety Scale, the short form of the Oxford Happiness Questionnaire, and the UCLA Loneliness Questionnaire. Pearson correlation and hierarchical regression statistical analysis were conducted in SPSS to investigate the relationship between the variables. The findings indicated a positive relationship between students' social media addiction levels and their anxiety and loneliness levels. On the other hand, there was a negative relationship between students' social media addiction and happiness levels. According to these findings, the social media addiction variable significantly predicted social anxiety. Therefore, anxiety is believed to be a significant predictor of social media addiction.

Equally, Calancie et al. (2017) conducted a qualitative study exploring how social networking sites impacted youth with anxiety and revealed that excessive use of Facebook significantly contributes to anxiety levels for adolescents with pre-existing anxiety disorders. The situation seems alarming as most youthful generations tend to be more attracted to Facebook (Saleem & Mengyan, 2017). In addition, Win et al. (2017) conducted a cross-section study to assess the student's prevalence of social media addiction on student's anxiety levels at Kyauke University. The study used a total sample of 400 students aged between 16-23 years. In this study, the researchers discovered that social media addiction was related to anxiety amongst the students. For instance, the study found that most students had been using social media for more than three

years. Those who were using social media for more than 4 hours were reported to be suffering from anxiety symptoms. The study also discovered a positive association between social media addiction and anxiety.

In another critical study, Hawi and Samaha (2017) examined the relationships between the addictive use of social media, self-esteem, and satisfaction with life using the Social Media Addiction Questionnaire (SMAQ) and Rosenberg's Self-Esteem Scale the Satisfaction with Life Scale instruments. Discoveries of the study revealed a negative correlation between addictive use of social media with self-esteem; additionally, the study also indicated a positive association with life satisfaction. Similarly, Hou et al. (2019) examined the relations of social media addiction on college students' mental health and academic performance using a total sample of 232. Social media addiction utilized the Bergen Social Media Addiction Scale (BSMA), while mental health was measured using a 20-item questionnaire adapted from the 30-item General Health Questionnaire. Results of the study indicated that addiction to social media was negatively correlated to the student's mental health, including anxiety.

Recently, Blasco et al. (2020) researched to analyze students' obsession with social networks and their relationship with anxiety using a sample of 361 university students. Addiction to social networks was measured using the Social Network Addiction questionnaire, and anxiety was measured using the Beck Anxiety Inventory's Spanish adaptation. The regression results showed that the aspect of addiction generated anxiety negatively. Results discovered meant that as anxiety levels increased, the excessive use of social media decreased. Muflih and Amestiasih (2018) carried out a quantitative analytic descriptive study to investigate the relationship between problematic social media use and anxiety and the risk of social health disasters in adolescents. The results showed no significant relationship between adolescents' social media addiction, anxiety, and social health disaster risk variables. In conclusion, the researchers indicated that social media access could cause both negative and positive impacts.

When a critical examination of prior anxiety studies is performed, it becomes indisputable that students are not immune to anxiety when using social media, despite the differences in their studies, which necessitates additional investigation. The other assumption harnessed from the

previous studies on anxiety is that most college students have problematic social media use. Consequently, they are susceptible to having symptoms of anxiety. Different social media gratifications such as Facebook, online chatting, games, and entertainment sites are captivating for students. As such, the activities have the potential to make them addicted to it and may lead to developing anxiety symptoms. However, the literature appears to carry contradictory evidence on heavy social media usage and anxiety symptoms. Some have pointed to negative associations, while others have yielded positive links. Worse still, some studies mentioned above do not focus on a specific age group, so the difference between this study and previous assessments is that this study only focuses on college students. Thus, the notable gaps identified in previous studies appear to warrant further investigations.

2.5.5.3 Social Media Addiction and Stress

Today's society is surrounded by the age of information technology, the Internet boom, and heavy social media usage due to its gratifications demands (Rautela et al., 2019). To this end, it makes sense to wonder if the use of social media creates stress. Ideally, of late, there has been more information flowing into students' lives than ever before due to media platforms. Much of it is distressing and puzzling (Samaha & Hawi, 2016). The ever-increasing social media technologies are believed to take over students' lives, creating social pressure and inducing risky behaviors (Sampasa-Kanyinga & Lewis, 2015). Evidence primarily from a previous decade and recent studies argued that students are becoming dependent or possibly addicted to social media (Shaw & Gant, 2002; Rahmatullah & Zhao, 2020). They feel very uncomfortable or stressed once they forget a phone or leave it behind somewhere. The situation leaves more questions than answers regarding what makes students so stressed when using social media. Thus, it is vital to refer to previous findings and conduct more research on the issue to answer the question.

Some studies have suggested that college students who use social media heavily are more likely to report psychological distress (Sampasa-Kanyinga & Lewis, 2015). It is commonly discovered that excessive social media usage can prompt elevated uneasiness, pain, depression, and stressful moments (Kaur & Bashir, 2016). For example, a qualitative study conducted by Kneidinger-Müller (2017) discovered that perpetual smartphone use led participants to increase communication overload, resulting in stress. Practical observations (Aydogan & Buyukyilmaz,

2017) support these findings and suggest that individuals often report feelings of stress emanating from using social media. Surprisingly, research indicates that even when students are stressed by excessive social media use, they continue using it (Fox & Moreland, 2015). Despite the evidence, we do not know why students can be stressed by the same social media that provides gratifications, particularly among Zambian college students due to scanty knowledge on the issue. Hence, a theoretical explanation for these findings is missing which requires examinations.

Besides that, Xiang-Ling et al. (2019) conducted a study with the intent to answer two questions. Firstly, it was on whether perceived stress influences problematic social media use via the mediating roles of depression and anxiety. Secondly, it was on whether these mediation effects would be moderated by psychological resilience and social support. Questionnaires were used for data collection from 641 Chinese college students who completed anonymous questionnaires measuring perceived stress, depression/anxiety, psychological resilience, social support, and problematic social media use. The study discovered that depression and anxiety mediated the association between perceived stress and inappropriate social media use. Similarly, Aydogan and Buyukyilmaz (2017) conducted a study that focused on determining social media users' stress and anxiety levels concerning the type and densities of social media use. The data utilized was collected from 487 students pursuing their studies at Karabuk University Business Faculty by the survey method. The study's findings indicated that the students' frequency and duration of social media use increased stress and anxiety levels. Furthermore, it was discovered that the student's stress and anxiety levels vary by social network type.

In their article, Dailey et al. (2020) named a biopsychosocial approach to understand social media addiction, which sought to understand predictors of social media addiction across four of the most popular social media platforms (Facebook, Twitter, Snapchat, and Instagram). According to the study, the more stressed a person was, the more likely that individual was to be addicted to social media. In another critical study, Kaur and Bhat (2016) investigated stress regarding students' mental health. The study's findings reported evidence of the stress with a detrimental effect on their well-being arising from addictive social media usage. Similarly, research that was done by Park et al. (2014) on East Asian college students in the United States

found that social media application like Facebook was positively associated with acculturative stress. Similarly, results obtained from a study conducted by Ostovar et al. (2016) revealed that depression and anxiety predicted interaction significantly. In support, Nassehi et al. (2016) found a significant positive correlation between internet addiction and depression, stress, and anxiety.

Subsequently, Samaha and Hawi (2016) conducted a study to explore whether satisfaction with life mediated by stress and academic performance facilitates smartphone addiction. Total samples of 300 university students were adopted who completed an online survey questionnaire posted to the student information system. Information was collected using a Smartphone Addiction Scale - Short Version, the Perceived Stress Scale, and the Satisfaction with Life Scale. Data were analyzed using Pearson correlations between the main variables and multivariate analysis of variances. The study discovered that smartphone addiction was positively related to perceived stress, but the latter was negatively associated with life satisfaction.

Besides, Fabris et al. (2020) carried out a study to investigate the possible strategic roles of perceived stress related to experiences of neglect and adverse reactions by other social media users and social media addiction. The study utilized self-report measures to collect information from the sampled individuals. Results show that FoMO, directly and indirectly, predicted emotional symptoms. Furthermore, it was discovered that FoMO was associated with increased sensitivity to stress related to experiences of neglect and adverse reactions by online peers and social media addiction. Thus, the study gave pieces of evidence that showed that FoMO was a factor in experiencing higher sensitivity to stress associated with neglect by online peers, which may trigger social media addiction (Nassehi et al., 2016).

Furthermore, Gökçearslan et al. (2018) conducted a study to examine the relationships between smartphone addiction, cyberloafing, stress, and social support using a sample of 885 undergraduate students studying at a public university in Turkey. Path analysis was used to examine the variables, and the findings revealed that the family's socioeconomic status, income, and location had no bearing on smartphone addiction. Smartphone addiction, stress, and perceived social support varied significantly by gender. Further analysis revealed that stress substantially impacts cyberloafing and smartphone addiction. Besides, İbrahim (2019) conducted

a study to test whether social support, depression, anxiety, stresses, and resilience predicts internet addiction. Findings revealed a negative association between Internet addiction and depression, anxiety, and stress. A significant negative association was found between Internet addiction, social support and resilience.

Another critical study was done by Simsek and Sali (2014). Their research examined the role of Internet addiction and social media membership on psychological capital using a quantitative approach that combined descriptive, relational, and comparative models. The study sample consisted of 209 students at a medium-sized state university in Turkey. Internet Addiction Inventory and Psychological Capital Questionnaire were employed as data gathering tools. A set of correlation analyses of variance and multiple regression techniques were conducted in analyzing data. The study's findings revealed that Internet addiction was a significant predictor of psychological capital, resilience, and self-efficacy. It further demonstrated that Internet addiction and resilience were negatively and significantly correlated ($r = -.14$, $p<.01$). The analysis meant that as Internet addiction increases, the resilience of the individual decreases.

Overall, students pursuing their studies in colleges often experience many kinds of stress, emanating from academic failure leaving the beloved family home, information overload, and problematic relationships (Borjalilu et al., 2015). However, some might excessively use social media to find comfort and escape from negative affect such as depression after stressful moments. Hence, identifying the students who may be more susceptible to such problems could be ideal. To this end, the current study seeks evidence that may provide practical suggestions that may help individual students who may be caught in the brackets experiencing stress due to higher social media use.

2.5.5.4 Social Media Addiction and sleep deprivation

Sleep deprivation is a health condition in which a person cannot sleep properly (Levenson et al., 2017). It is defined as trouble initiating or maintaining sleep which also encompasses consequences such as difficulties in falling asleep, remaining asleep, and waking up too early (Garett et al., 2018). It is a commonly reported sleep problem, especially among social media addicts (Galambos et al., 2011; Garett et al., 2018). Sleep deprivation is a growing health

problem among the college student populace (Nowell & Thompson, 2020). It continues to become more detrimental as social media technological advances and social media use continue to increase in the college, particularly among students (Garett et al., 2018). Regardless of the substantial data, there has been little research on how social media affect college students' sleep quality in Zambia (Akakandelwa & Walubita, 2017). Despite that, some potential literature has been discovered outside the country.

For instance, in their study, Becker et al. (2008) found that three-quarters of college students reported having sleep problems during bedtime. Equally, two separate studies conducted on different demographics also replicated Becker et al.'s findings. The researchers indicated that students' sleep deprivation was strongly related to higher social media usage (Galambos et al., 2011; Winneke et al., 2018). Similary, Nowell and Thompson (2020) studied how different social media applications affect sleep quality among students using the Pittsburg Sleep Quality Index (PSQI) to assess sleep quality. The study used a total sample of 133 students. Results found that individuals that used Snapchat and Twitter reported poorer sleep quality.

A study on excessive social media users showed that a greater level of prolonged stress induces sleep disturbances (Garett et al., 2018). As such, the increased levels of physiological arousal may make it more difficult for adolescents to fall asleep (Garett et al., 2018). Notably, excessive use of social media platforms at night could keep one awake till late, thus impairing sleep and influencing stress. For example, studies on social media addiction and effects on mental health reported a correlation between social media addiction and loss of sleep. These studies indicated that students were staying up awake because of the gratification of chatting online, needing to attend to oncoming messages immediately, checking on updates, or reaching the next game levels (Sharma & Shukla, 2016; Cramer & Inkster, 2017). In support, Bashir and Bhat (2017) conducted a study on excessive social media on mental health. Findings revealed important sleep-related outcomes. These include fewer hours slept at night and lower sleep quality.

The number of hours of sleep during bedtime has also been reported to significantly impact sleep deprivations (Lund et al., 2010; Garett et al., 2018; Alamer et al.., 2020). For example, in one study, approximately 25% of students reported sleeping fewer than six hours each night (Lund et

al., 2010). Equally, Nasirudeen et al. (2017) conducted a study and found that an overwhelming number (97.6%) of students sleep less than 7 hours due to social media. Subsequently, an earlier study was done by Lund et al. (2010) in Virginia, USA, reported that most students were sleeping less than 8 hours. This showed that students used to prolong their stay on social media, especially in bed, and the trend had to yield adverse effects on students' daytime sleepiness. This is worrisome since the average 18-year-old requires roughly 8.5 hours of sleep for enhanced efficiency (National Sleep Foundation, 2013).

Moreover, a study was done by Alamer et al. (2020) to determine the prevalence of Internet addiction and to find out its relation with depressive symptoms, sleep quality, and demographic variables. This study used a cross-sectional design. Data were collected from 341 students in Saudi Arabia using Pittsburgh Sleep Quality Index. The study reviews that more than two-thirds of the students (69.9%) experienced poor sleep quality due to social media. Equally, a study was done by Levenson et al. (2017) also pointed out that excessive use of social media platforms correlates with more sleep disturbances, a situation leading to insomnia effects such as lower sleep quality. Moreover, with the help of 197 respondents, Garett et al. (2018) conducted a study to establish the variation between Twitter uses during weekends, late-night, and evenings on newcomers' sleep quality in school. Results indicated that tweet usage varied throughout the day and was associated with students' severe sleep problems. Additionally, a study done by The Hearty Soul (2016) posits that the longer time individuals spend on social media, the more they become stressed. The study further reported that excessive social media usage led to sleep deprivation, primarily when used at night.

Correspondingly, Levenson et al. (2017) conducted a study entitled "Social Media Use Before Bed and Sleep Disturbance Among Young Adults" in the United States, a nationally representative study performed at the University of Pittsburgh in the United States. The study revealed that social media use was associated with sleep disturbance. The study indicated that excessive social media use in the 30 minutes before bed was independently associated with more significant sleep disturbance amongst young adults. In another related study, Gulden and Kubra (2018) conducted a study to examine the relationship between social media use and sleep disturbance among 204 students in Edirne, Turkey. Personal Information Form, which included

questions about sleep hours, smoking and alcohol use, eating habits, physical activities, social media use, and participants' demographic characteristics, evaluated students' demographic information and lifestyles. The study's findings demonstrated that sleep quality decreased in students who spent more time on social media.

Subsequensly, Lin et al. (2019) carried out a study to investigate the relationship between addictions and sleep quality and determine whether significant variations in sleep quality exist among students with different degrees of Internet use. Multiple regression statistical analysis was used to examine the correlation between Sleep Quality Index and Internet Addiction Test scores among the respondents. Logistic analysis was used to explore the significance of the association between Sleep Quality Index and Internet Addiction Test scores. The study's findings demonstrated a significant negative association between the degree of Internet addiction and sleep quality.

In another related study, Yang et al. (2019) conducted a study that aimed to examine the associations between sleep duration with smartphone dependence and a health-promoting lifestyle; the research was also centered on identifying predictor(s) of inadequate sleep among adolescent females. The study used the total sample of 385 subjected to the Likert 4-point scale (i.e., 0: never; 1: occasionally; 2: usually; and 3: always) with Cronbach's alpha that ranged from 0.79 to 0.95. SPSS for Mac version 22.0 was utilized for data analysis. It was evidence that up to 95% of participants were in the habit of using their smartphones before their sleep. Findings revealed a negative correlation between smartphone dependence and sleep duration ($P < 0.01$). Hence, it was evidence that smartphone use during sleeping was a significant predictor of sleep deprivation among the students. This meant that a healthy lifestyle should be part of the preventive measures required to be instituted by learning institutions.

In contrast, Alamer et al. (2020) found a contradictory result in their cross-sectional design study to determine the prevalence of Internet addiction and find out its relation with depressive symptoms, sleep quality, and demographic variables. Results of the study discovered positive moderate correlation between Internet addiction and depression ($r = 0.401$, $p < 0.001$) and a positive weak correlation with sleep quality ($r = 0.196$, $p = 0.002$). Sleeping and depression

were weakly correlated ($r = 0.274$, $p < 0.001$). Ideally, the results may suggest that uncontrolled social media during bedtime may significantly impact the psychological well-being of an individual social media user. More importantly, the student may develop the psychological problem of fear of missing out on fundamental issues. Hence, they may engage in compulsives' social media usage. Fears of missing out on important issues have been confirmed to negatively impact the quality of sleep. For example, Elhai et al. (2016) carried out a study to examine variables conceptually related to problematic smartphone use and use frequency using a total sample of 308 smartphone users' participants. The study's findings revealed heavy social media use correlated with anxiety, need for touch, and FoMO. It was further reported that the frequency of social media use was most correlated (inversely) with depression.

One of the most outstanding issues with social media is that it is easy to remain in contact with companionship around the globe at all times of the day because the social media platform never shuts down, even during bedtime. Therefore, students can stay on their communication gadgets and contact everyone they want to reach. This time usage has been shown to disrupt sleeping patterns and push back one's bedtime as far as six hours. Worse more, the constant creation of new apps on the social media platform site has also made it possible for students to stay alert at night. Once a student gets on such updated platforms, it becomes difficult to refrain from its use. As a result, it appears critical to assess social media patterns among Copperbelt college students around bedtime.

Generally, it is worth noting that the prevalence of depression, anxiety, stress, and quality of sleep within the college student population is a significant cause for concern primarily due to the possible upswing of their heavy usage of social media. Regardless of that, researchers have contradicting views on such variable symptoms adding further distress among researchers. Thus it is undoubtedly, to say that little is known about how the variables adversely impact students' social lives. Due to the non-existence of such studies in colleges of education on the Copperbelt of Zambia, it could be anticipated that academicians and researchers may be carrying false assumptions on the impacts the variable exerts. Therefore, the study is vital as it may contribute to awareness of the vice resulting from college students' uncensored social media usage.

2.6. Gaps identified in the reviewed literature

In an attempt to advance the current understanding of the social media phenomenon, this study explored and empirically examined social media usage while accounting for potential confounding consequences stemming from the addictive use of social media. Various scholars worldwide (Owusu-Acheaw & Larson, 2015; Asiedu & Badu, 2018; Nyagah et al., 2019) including Zambia (Akakandelwa & Walubita, 2017; Kemp, 2020) have observed exponential growth in social media use in the last decade. However, the pace at which social media technology is developing and advancing in recent years is difficult to comprehend. As it is known, any discussion of its characteristics and innovations could be outdated within a month, and this constant change also affects research on social media. Such a scenario signifies that the current literature on social media use, addiction, and implication among students is still developing, leaving several gaps and shortcomings, as evident from the presented literature in this chapter. Hence, the developing nature of knowledge in this area was a critical factor in the development of this study.

Due to rapid, constant social media innovations, there is reason to believe that students' knowledge about social media use and possible consequences is scattered and incomplete. For instance, previous studies on students' social media adoption and usage cannot be considered conclusive because social media use tendencies change rapidly. It is difficult for the research community to keep up. For instance, a gap exists in terms of what students prefer most regarding the adoption of social media platforms. Some studies have indicated that Facebook and WhatsApp are the most widely used platforms (Rousseau & Puttaraju, 2014; Akakandelwa & Walubita, 2017), while others have refuted the assertion (Saleen & Mengyan, 2017; Rautela et al., 2019). The contradictory nature of findings within this field may be a symptom of the relatively recent development of media. Hence, variations incurred require further examination.

Subsequently, scholars have reported a surge in social media innovations and sophistication (Kemp, 2020). Despite that, the exact nature of how students use social media, particularly in the college of education in Zambia (Akakandelwa & Walubita, 2017), is still unknown, owing to the scarcity of empirical studies. More importantly, there is a shortage of details on specific patterns of social media use, the context in which students use it, and the regularity of service or type of

content students share. Thus, creating a gap that may jeopardize experts arguing for or against on how frequently students check social media and how long they spend every visit.

Moreover, literature globally has also offered a variety of perspectives on the extent to which students use social media by demographic. For example, global statistical analysis on platform usage indicates that 44 percent of Facebook users identify as female, while 56 percent identify as male. Female Instagram users account for 50.4 percent of all users, while male Instagram users account for 49.4 percent (Kemp, 2018). Some scholars have argued that female use more social media than their male counterparts (Simsek et al., 2017). In contrast, some studies reflected a reversal in the results when they investigated the variables of gender and age in particular. They argue that males use more social media than females (Correa et al., 2010; Raj et al., 2018), while others have discovered insignificant results among demographic factors (Jafarkarimi et al., 2016; Hossain & Prodhan, 2020; Pérez et al., 2021). In particular, the three studies found no statistically significant difference between male and female students in social media usage

The preceding situation signifies that very little is known about students' social media usage, particularly in the colleges of education in Zambia. There is very little research-based evidence about how students use social media and how that impacts their demographics, which leaves a gap. Thus, this gap provides a safe way to say that literature has conflicting evidence about how social media impact student who uses it. Subsequently, literature on students' social media addictions based on regions and other geographical settings globally seem to carry a crucial gap (Andreassen et al., 2017; Afacan & Ozbek, 2019; Pérez et al., 2021). Precisely, it appears a large majority of prior research that investigated this research topic has concentrated much in developed countries, with limited empirical evidence found in the context of underdeveloped countries like Zambia (Akakandelwa &Walubita, 2017). Even though some studies on social media have been conducted in Zambia, the researcher is not aware of any broad-sweeping review covering this area in colleges of education on the Copperbelt in Zambia, thus, creating a gap. Therefore, it would have been more interesting to have literature that would spell out varying demographic settings to have a clear picture of the characteristics of other environments regarding social media usage.

Additionally, other researchers in other countries have looked into the motivations for using social media in various ways. As such, examining reasons students utilize social media in diverse areas Zambia inclusive seems vital. Allowing students' motivations for using social media to be overlooked due to various demographic characteristics may intentionally invite more serious social media issues. However, previous studies relevant to this study have shown motives in using social media such as communication for enjoyment (Guliz & Basak, 2018). Subsequently, scholars have also reiterated that, for example, Tiwari (2017) concluded that most students were using social media mainly for interactions and not for any educational purpose. Results provide a problematic situation when considering students' primary intent of joining college. The troubling case must be investigated thoroughly in a different setting so that knowledge on the purpose that compels the student to engage in social media is known. The situation may create a basis for argument, mainly in education colleges in Zambia.

Parallel to increasing access to social media, a new sort of addiction, that is, social media addiction is emerging. The concept of addiction to social media, which has an increasing number of users and hours of use, has become a popular topic of discussion in the literature. As earlier alluded to, social media addiction is a relevant problem that may worsen in the future due to the rapid innovations of technologies, thus, requiring constant exploitation. However, past empirical studies have documented the variation in how scholars gauge social media usage and addiction. In that case, inconsistencies have been noted as a gap because there is a wide range of addiction levels. Some studies have shown low levels of addiction (Şahin, 2017; Ozbek, 2019; Tutgun-Unal, 2020), others moderate or mild (Ramesh Masthi et al., 2018; Mohammadi et al., 2018) whereas some have produced results of higher addiction (Azizi et al., 2019). The notable variation signifies that the problem is still insufficiently explored based on the inconsistencies identified by previous scholars. As previously said, the causes for such variances may point to differences in cultural background and social media technical progression. In such a scenario, variations must also be confirmed in the college of education on the Copperbelt to guide policy formulation for the effective intervention of addictive usage.

Furthermore, there are ongoing arguments among academics about the link between the phenomena of social media addiction and potential consequences for students. One of the biggest

problems is the seemingly contradictory and convoluted nature of many of these findings. For instance, Twenge and Campbell (2019) stated that digital technology and social media harm well-being, while Orben and Przybylski (2019) argued that the association between digital technology use and adolescent well-being is more or less inconsequential. Additional gaps have also been identified in the current literature; some scholars have found addictive social media usage positively correlated with depression, anxiety, and stress (İbrahim 2019; Rahmatullah & Zhao, 2020). In contrast, others have yielded negative associations between the variables (Elhai et al., 2016; Alamer et al.., 2020). The consensus within the literature on the exact nature of the relationship between the variable still appear to be somewhat inconclusive. It is possible to state that research on social media use is a new focus area. Hence, it is essential to get an overview of the studies performed to date.

Equally, there has been a shortage of research on the specific focus of this study, particularly with the one utilizing the use of theories such as uses and gratifications theory, media dependence system theory, and rational addiction theory all tighter to interpret the finding. This creates a gap that requires to be filled up. It was anticipated that when the three theories are combined, it can help narrow the study to focus on understanding the extent of social media usage, their addiction levels based on demographic factors, and help understand the implications arising from addictive use of the same social media.

Without the researcher looking at these underlying gaps and processes discussed above, this study may be obscured due to inappropriate study information and evidence, limiting sound arguments on the students' social media usage, addiction, and implications. In that case, the empirical research cited throughout has given a background of understanding to identify where research on this essential topic lacks and warrants more investigation.

2.7 Summary

This chapter reviewed related literature on students' social media usage, addiction, and possible consequences among college students. Scholars' literature seems to be characterized by inconsistencies and similarities. The contradictory nature may be seen as a result of the considerable dynamic of social media, which is constantly evolving. Despite the notable

variations, literature appears to hold a consensus that one of the demographics that have primarily accepted social media technology into their lives is the contemporary college-age. The literature also indicated that nearly all the students were social media users. However, the adoption of social media platforms varied. Equally, the literature presented has highlighted evidence on the usage of social media in terms of the number of years students have been using it, how frequently they visit social media and the amount of time they spend on it. According to the literature, different studies have found that college students spend a lot of time on social media, which is worth for investigating in other places Zambia in particular.

Subsequently, this chapter has also reviewed literature on the extent to which students use social media by demographic factors, namely gender, age, year of study, and college status. Interestingly, results that have been discovered in most of these studies on demographic characteristics have come up with conflicting conclusions, resulting in gaps. Regardless of the outcome, there appear to be problems with specific study methodologies in the literature. For example, this chapter has reframed the question of sample size. It has argued that some studies employ a large sample size while others use a small sample size. In most cases, quantitative research necessitates a large sample size to generate reliable results that can be easily generalized to other areas (Creswell & Creswell, 2018). Thus, a limited sample size might lead to inaccurate conclusions, leading to contradictions. Furthermore, varying statistical programs may also contribute to variations in some studies. Some research, for example, merely used percentages and descriptive statistics in their studies. They did not use more complex statistics such as the binary regression statistical package to evaluate the results further and derive actual meaning from the data gathered. Thus, this chapter has shed more light on the issue of methodology, which appears to be a critical aspect that needs proper consideration.

The chapter has also highlighted the issue of motivation for college students' use of social media. Most of the intent in literature seems to point at leisure and pressure as they quest for gratification. Despite social media having numerous benefits, this chapter has also shed light that social media use also seems to be more than its services. Some drawbacks can be listed, such as sharing inappropriate pictures and videos that might give rise to a lousy reputation in interpersonal relationships. Due to its well-known captivity, some students may indulge in

sending unscrutinized and improper content to known and unknown friends. This experience may cause destructive behaviors, leading to social life challenges.

Until now, available knowledge on the social media addiction levels of students is still limited because research on this aspect has been scattered. This makes it more difficult to gain the broad perspective needed to fully comprehend the benefits of the phenomena. Nonetheless, this chapter has attempted to look into various arguments made by some scholars. Thus, it is possible to conclude that the addictive characteristics of students on social media differ significantly. There are differences in their levels of addiction. Some studies revealed low levels of addiction, while others revealed moderate or mild levels of addiction, while still others revealed higher levels of addiction. Hence, the chapter brought out varying arguments. The situation creates a large gap that necessitates additional research in various settings in order to gain a clear picture of the phenomenon. However, it is thought that the differences are because of how social media technology has changed over time. This calls for a thorough investigation in a variety of settings.

Through further exploration, this chapter has also noted that there is a growing body of research showing the relationships between social media addiction with specific social life consequences, like depression, stress, anxiety, sleep deprivations, and many others. Students seem to ignore the adversely and continue to use social media excessively. In these studies, researchers have presented numerous contradictory arguments which require special attention. Some academics have found addictive social media usage positively correlated with depression, anxiety, and stress. In contrast, others have yielded negative associations between the variables. This brings to the understanding that literature on the exact nature of the relationship between variables still appears to be somewhat inconclusive.

Therefore, this chapter has provided insight into how students use social media, how they become addicted to it, and the consequences that result from it. It has also been indicated that even though the literature on social media has gained wide scholarly attention in recent years, few studies have critically summarized empirically-based outcome research in this emerging area in Zambia. Worse, in colleges of education on the Copperbelt, which seem to be characterized by a lack of empirical information, probably because social media is a relatively new area within

academic literature to date. Thus, there is still a lot of ground to be covered within the field. Precisely, it is necessary to investigate the various contexts in different regions, current time, sample diversity, and data collection procedures and tools for specific cases. In this way, this chapter has tried to give some ideas and assumptions that might be worth looking into from the arguments of some scholars.

CHAPTER 3: METHODOLOGY

3.0 Overview

This chapter provides a presentation of the research methodology used in the study. Bryman (2016) explained methodology importance as the component that provides a sense of vision regarding what the researcher wants to do in the research process. The techniques and procedures provide the means of bringing that vision into reality. Thus, the chapter discusses methodology under the following subtheme: paradigm choices impelling the research methodology, the rationale for choosing Post-positivist paradigm; research design; target population, study sample, sampling procedure, research instrument, validity and reliability of data collection procedure, data analysis, and ethical consideration.

3.1 Paradigm Choices Impelling the Research Methodology

Researchers understand the world's realities from different angles. They have created varying novel methods of reasoning as their quest for information and thoroughly interpreting it to obtain the truth (Scotland, 2012). In that case, researchers are guided by their ways when dealing with the research itself. Thus, before discussing the research design and methodology that this study utilized, it is essential to clarify the fundamental philosophical paradigm structure that outlined its establishment. Mackenzie and Knipe (2006:2) stated that "without nominating a paradigm as the first step, there is no basis for subsequent choices regarding methodology, methods, literature or research design." In agreement with Mackenzie and Knipe's observation, it can be argued that since paradigms influence the research method, instruments used, and interpretations, it is essential to state clearly the research paradigm.

There are many definitions of a paradigm that relate to the foundations of an inquiry. The term paradigm describes a researcher's 'worldview' (Mackenzie & Knipe, 2006). Accordingly, McGregor and Murnane (2010:419) defined a paradigm as "a set of assumptions, concepts, values, and practices that constitutes a way of viewing reality." In a similar vein, Kivunja and Kuyini (2017) notice that paradigms are subsequently significant on the grounds that they provide beliefs that impact what ought to be examined, how it ought to be considered, and how the aftereffects of the investigation ought to be interpreted. Whereas, Guba and Lincoln (1994) observed that;

> *a paradigm may be viewed as a set of basic beliefs (or metaphysics) that deals with ultimate or first principles. It represents a worldview that defines, for its holder, the nature of the "world," the individual's place in it and the range of possible relationships to that world and its parts, as, for example, cosmologies and theologies do. The beliefs are basic in the sense that they must be accepted simply on faith… (p. 107).*

In support of the preceding observations, Khatri (2020) argues that the research paradigm comprises the researcher's perspective, abstract beliefs, and rules shaping how the researcher sees the world, interprets it, and acts within it. It is the point of convergence through which a researcher looks at the research topic and examines the methodological parts of the exploration work founded on a particular philosophical establishment. In this case, paradigms guide how problems are solved, and they directly influence a researcher's choice of methods. A paradigm comprises several building blocks of knowledge that are viewed as presumptions through which reality, knowledge, methodological approaches, and values are defined (Mackenzie & Knipe, 2006). Paradigms also constitute of components that helps in detailing one's research (Guba & Lincoln, 1994). Amplifying the assertion, Kivunja and Kuyini (2017:26) explained that such components include "Ontology Epistemology Methodology, Axiology." In this study therefore, the paradigms components were largely used to help describe and focus on certain approaches and perceptions to research to give its appropriate direction. However, researchers must be aware that each paradigm component contains critical elements that are quite influential in classifying and explaining the various paradigms across some inquiries.

Scotland (2012) classified research paradigms into three; positivism, interpretivism or constructivist, and critical theory paradigms. Guba and Lincoln (1994) proposed four paradigms; positivism, post-positivism, constructivism, and critical theory. Similarly, Saunders et al. (2019:144-145) classify paradigm into five key elements; "positivism, critical realism, interpretivism, post-modernism, and pragmatism." Okesina (2020:60) preferred four key features; "positivism, interpretivism/constructivism, critical paradigm/theory, and pragmatic paradigm." A critical review by Mackenzie and Knipe (2006) suggests a four-type classification model comprising positivist/post-positivist, interpretive/constructivist, transformative, and pragmatic. As such, it is essential to argue that researchers' classifications of the paradigms vary. In addition, one must understand that the identified paradigms are not static but continuously

evolving. Its dynamics forces arise from conflicting opinions on the acceptable number or classification model best described in the inquiry (Punch, 2009). However, the classification is based on each researcher's quest for knowledge regarding the problem at hand. Hence, this research outlines Mackenzie and Knipe's (2006) fundamental philosophical paradigms known as interpretivism/social constructivism and positivism/post-positivism. After that, the research delves into the Post-positivism paradigm in-depth, as this was the study's guiding principle.

3.1.1 Interpretivism/Social Constructivism

An interpretative approach in the social sciences stems from the assumption that the social world is ontologically different compared to the natural world. Emphasis is placed on understanding the individual and their interpretation of the world around them. The interpretivism approach emphasizes the researcher being part of the research process alongside the subject. As argued by Kivunja and Kuyini (2017:33), "the researcher and their subjects are engaged in interactive processes in which they intermingle, dialogue, question, listen, read, write and record research data." Thus, the interpretive paradigm's central endeavour is to understand the subjective world of human experience.

The interpretive tenet is that "the reality is socially constructed" (Kivunja & Kuyini, 2017:33). This is the reason why sometimes it is called a Constructivist worldview (Gringeri et al., 2013). In this regard, it is primarily concerned with the subjectivity of social phenomena to evaluate attitudes, views, and behavior when focusing on the entire set of data (Berg & Lune, 2012). However, academicians have questioned researchers on certain methodological limitations that the approach exhibits. For example, Cohen and Morrison (2011:21) pointed out that “subjective methods employed by the qualitative approach users may be wrong, inaccurate, and misleading.” The authors' criticism was based on ontological and epistemological paradigms, that is, how the researchers understand and negotiate the situation.

In this approach, interpretivism aims to improve the understanding of events within the context's complexities. This implies that its ontological view tends to be subjective rather than objective (Kivunja & Kuyini, 2017). Thus, it limits the generalization of the findings to other populations and situations (Berg & Lune, 2012). Besides, the size of some small sample studies also raises

issues of lack of generalisability in interpretivism research. In this regard, it tends to leave a gap in evaluating the validity and usefulness of study findings (Cohen and Morrison, 2011). Consequently, data interpretation and analysis may be more challenging or complex, as argued by some researchers who (Berg & Lune, 2012:4) commented that, "Qualitative research is a long hard road, with elusive data on one side and stringent requirements for analysis on the other." As such, it calls for expertise to realize the study goals. In a nutshell, study findings are unquestionably influenced by the researcher's interpretation, belief system, ways of thinking, or cultural preference, resulting in several biases. This is a complete rejection of the interpretive' concept of Subjectivism in this study.

3.1.2 Post-positivism Paradigms

Positivism is the paradigm that investigates phenomena using static empirical methods (Mackenzie & Knipe, 2006). Its philosophical assumptions lead to the belief that there is only one accurate version of an event and that the purported scientific method is the only way to determine truth and objective reality (Crotty, 2003). Positivist asserts that the natural sciences' methods, techniques, and procedures provide the best framework for investigating the social world (Morris, 2006). However, some scholars have questioned Positivist assumptions. They argue that "no matter how faithfully the scientist adheres to scientific methods, study outcomes are neither totally objective nor unquestionably certain" (Crotty, 2003:40). As pointed out by one scholar, Positivist asserts that there is an objective reality out there to be studied, captured, and comprehended in totality (Grix, 2004). In contrast, other scholars argue that reality can never be fully understood, only approximated (Gage, 1989: Crotty, 2003). Such controversial arguments gave birth to the second version of Positivism, known as Post-positivism, a contemporary paradigm that has dominated the social sciences to this point (Crotty, 2003; Grix, 2004).

According to Creswell (2009:6), Post-positivism is an extension of Positivism because it "challenges the traditional notion of the absolute and objective truth of knowledge in the social sciences." This opens up the possibility of developing alternative research strategies to find information in unusual and creative ways. Hence, Post-positivism is an attempt to address the flaws in the Positivist paradigm. Post-positivists believe that social scientists and natural scientists have similar research goals and investigate using similar methods (Kivunja & Kuyini,

2017). In fact, of late, most scholars prefer using the Post-positivism approach because it is described as flexible and a less strict form of Positivism (Crotty, 2003). Post-positivism also shares many philosophical assumptions derived from other paradigms that guide research. Ontology, epistemology, axiology, and methodology are examples of these. Therefore, it is imperative to note that the current study also took the root of these assumptions embedded in Post-positivism in understanding issues of social media usage and its effects on students.

In-depth, Khatri (2020) recently argued that the viewpoints of research paradigm pronounce ontology as nature of reality, which generates the ontological question such as the nature of reality (objective, constructed, subjective) and what is there in the world; that can be known about it? In short, ontology is concerned with our beliefs about the nature and kind of reality and what exists in the social world. However, one scholar assumed that the ontological stance of Post-positivism is that of critical realism (Grix, 2004). This philosophical assumption assumes that reality exists independently of the observer but can only be grasped imperfectly due to the complexities of social phenomena; it also acknowledges the possibility of the researcher's own beliefs and a value influencing what is observed (Grix, 2004). In that case, considering varying approaches to gain reality is critical. Regarding the current study little is known about how and why students use social media and the possible consequences. The quest for reality on the issue necessitated investigating the perspectives of students, each of whom may have a different complex version and perception of reality. Thus, it was assumed that Post-positivism’s flexiblity would provide the phenomenon's reality from the vast number of students' perspectives.

With regard to knowledge (epistemology), Crotty (2003:3) indicated that it "is a way of understanding and explaining how we know what we know." It is concerned with how humans go about uncovering knowledge of social behavior. In this regard, researchers must find answers to perplexing questions to learn about the situation. One guiding principle of the Post-positivism approach maintains that knowledge is approximately known (Gage, 1989). As such, it could be assumed that embracing Post-positivism as one begins to conduct research provides flexibility that could lead to a closer approximation of the true nature of what the researcher is investigating. For instance, the nature of question three in chapter one aimed to establish the students' addiction level. The question points directly to estimation or approximations in

revealing knowledge on the degree of students' addiction to social media in colleges of education on the Copperbelt. Thus, this study relies also on estimations using appropriate statistical procedures in the quest for knowledge on students' social media issues.

Besides, axiology is considered as one nature of ethics. It covers the role of values in inquiry and ethical considerations (Kivunja & Kuyini, 2017). Post-positivism holds that all inquiries should be value-free (Khatri, 2020). This means that the investigator's mind is thought to be separate from the world of objects, of what is investigated. Key to this ethical orientation is the identification of ethical virtues (Guba & Lincoln, 1994). Thus, researchers are obliged to observe varying ethical procedures at all stages of the research process to achieve objectivity and neutrality of reality during the inquiry process. Hence, extra care was employed in this study in the area of data collecting, analyzing, and interpreting to obtain valid and verifiable pieces of information that could easily be generalized.

In terms of Methodology, Crotty (2003:3) argued that it is "the strategy, plan of action, process or design lying behind the choice and use of particular methods to the desired outcomes." In that case, its goal is to describe, assess, and justify specific methods to obtain the appropriate information. Like other paradigms, the process is equally applicable in the Post-positivism paradigm (Kivunja & Kuyini, 2017). However, Creswell (2009) adds by indicating that Post-positivism relies on multiple strategies to capture as much reality as possible. This signifies that a researcher should be well vested in using varying research strategies and should carefully consider the best method for answering perplexing research questions.

Therefore, in this study, the contemporary approach (Post-positivism) was thought to resonate well in answering the students' how and what questions surrounding social media usage. The reason is that it necessitates flexibility in the adoption and use of strategies. As a result, particular consideration rests on the use of quantitative designs utilizing three data collecting instruments and multiple computer-assisted methods of analysis in SPSS to examine the social media reality among students. The rationale of using a quantitative approach in this study, which is considered the sole domain of the post-positivist paradigm, is discussed further down.

3.2 Justification for Choosing Quantitative Approach

As literature holds, there is no one optimal technique for conducting research. The decision is dictated by the researchers' objectives and topic matter. As such, the choice of a paradigm is based on whatever concepts are seen to be most relevant to the social context under investigation (Creswell & Creswell, 2018). In relation to the context of this study, the guiding philosophical approach adopted to investigate students' social media usage, addiction, and the possible consequences among students in colleges of education on the Copperbelt is a single approach (post-positivism/quantitative). Adopting the post-positivism approach places a premium on the viewpoint to answer the study questions outlined in chapter one.

In this regard, the nature of the phenomena study requires quantitative methods. Firstly, the subject area demands the recruitment of many respondents from various colleges on the Copperbelt. As such, a large number of the respondents were drawn from six colleges of education to allow for a broader study involving a more significant number of subjects and enhance the generalization of the results as guided by some scholars (Braun et al., 2014; Okesina, 2020). This approach helps the researcher generalize the study's findings to the whole research population. Also, worth considering in line with arguments discussed in chapter two, on how adoption and usage of social media applications differ from one person or group to another. It is essential to establish the extent of variations in social media engagement based on the broader perspective. This situation requires the researcher to obtain data from the larger sample, as in the case of this study.

In addition, quantitative studies advocate using survey methods that blend well with the help of questionnaires. In most circumstances, the researcher and the informants are two different entities that need not influence each other for the validity and reliability of the findings. To avoid influencing results, Post-positivists try to remain neutral and detach themselves from the respondents during data collection (Okesina, 2020). This indicates that a researcher would do research as far as possible, in a value-free way. They claim to be separate from the data gathering process because researchers can do nothing to change the data's content. In this regard, the issue of the researcher being biased in data collection will be highly eliminated when the researcher is not in direct contact with the respondents. In this case, the researcher obtained data through a

questionnaire. As such, the objectivity of the research will not be compromised. Secondly, this may guarantee respondent anonymity (Creswell & Creswell, 2018).

According to Apuke (2017) quantitative approach involves the use and analysis of numerical data using specialized statistical techniques to answer problems "like who, how much, what, where, when, how many, and how" (p.41) Therefore, a quantitative research method deals with quantifying and analysis variables to get results. Actually, to conduct statistical analysis, phenomena must be reduced to numerical values. Subsequently, quantitative research aims to test theories, determine facts, demonstrate relationships between variables, and predict outcomes (Braun et al., 2014). These variables can then be examined using instruments, allowing numerical data to be analyzed using statistical procedures (Creswell, 2014) to support or falsify the hypothesis (Braun et al., 2014). The overarching aim of a quantitative research study is to classify features, count them, and construct statistical models to explain what is observed.

In line with the above, it is essential to indicate that the nature of the research study, which took the root of quantitative, helped to gain a comprehensive understanding of the extent usage of social media by the student concerning the type of social media commonly used and frequency visitation, addictions and implications. The use of quantitative statistical powers enables the researcher to come up with levels of addictions and the associative nature of distraction among students. For example, the association between levels of addiction and demographic factors favored percentages, chi-squares, and binary regression statistical package to determine it. This is not attainable in a qualitative approach. Thus, the method helped gain more information regarding the association surrounding students' social media usage.

Additionally, analyzing collected data from many respondents using the Statistical Package for Social Science (SPSS) helped broaden the research. There was more information about the respondents' online activities, such as how they frequently use social media regarding the number of hours they spend per visit, their logging status, and the number of hours they spend sleeping while interacting with social media. Using statistical data for descriptions and analysis reduces the time and effort the researcher would have invested in describing his result. Data can be calculated using a computer SPSS which may enhance saving of time, energy, and resources.

3.3 Research design

A good understanding of the research design and methodology is a prerequisite for quality research. A research design is the framework of methods and techniques used to collect and analyze the variables in the research problem (Bless & Achola, 1988). According to Kombo and Tromp (2013:70), "research design is used to structure the research, to show how all of the major parts of the research project work together to address the central research questions." Subsequently, research designs are "procedures for collecting, analyzing, interpreting and reporting data in research studies" (Creswell & Clark, 2018:53). In this sense, a research design provides the researcher with a clear research framework. It guides the methods, decisions and sets the basis for interventions.

As stated in the previous section, the main objective of the study was to investigate students' social media use, addiction levels, and perceived impacts on their social lives in colleges of education. To achieve this, it demands the utilisation of statistical and quantitative results from all colleges of education on the Copperbelt. For example, to answer the question of how many respondents preferred the use of a particular platform, level of addition, and the association involved, the study seeks to provide quantifiable results emanating from the larger population. Therefore, the pertinent research design is obviously a descriptive research design.

Accordingly, Kombo and Tromp (2013) stated that descriptive research is survey research that involves collecting data in order to test hypotheses or to answer questions about the opinions of people about some topic or issue. Other scholars indicated that descriptive research design involves the utilization and analysis of numerical data using specific statistical techniques to answer questions like who, how much, what, where, when, how many, and how (Braun et al., 2014). Besides, Creswell and Creswell (2018) specified that survey research designs are procedures in quantitative research in which investigators administer a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviors, or characteristics of the population. Therefore, descriptive research design involves a quantitative research process that deals with quantifying and analyzing variables in order to get results. Precisely, it deals with the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute alternative knowledge claims.

In this case, the descriptive research design was appropriate and convenient for data collection because it targeted six cohorts of respondents defined by differences in their levels of study but tested them all together (Creswell & Creswell, 2018). The primary rationale behind the adoption and use of descriptive research is that subjects are generally measured once (Robson, 2002), a notion that serves time. Besides, the design involves observing and describing the behavior of a subject without influencing it in any way, thus minimising biaseness (Saunders et al., 2019). Similarly, it strives to establish connections between variables. It may involve a sample population of hundreds or thousands of people to ensure that a valid estimate of a generalized relationship between variables has been achieved. In the case of this study, more respondents were recruited, as discussed in the next paragraphs.

3.4 Target Population

Research is usually defined by the subject of the population in a particular area. Best and Khan (1993:13) define a population as a "group of individuals that have one or more characteristics in common that are of interest to the researcher." Parahoo (1997) also describes a study population as the total number of units from which data can potentially be collected. The units may be individuals, organizations, events, or artifacts (Kombo & Tromp, 2013). Thus, it is often not appropriate or feasible to recruit the entire population of interest.

Hence, the study population comprised all the diploma students (both private and public colleges) pursuing their tertiary education in colleges of education within Zambia's Copperbelt province. The nature of the problem concerning social media usage, addiction, and the possible consequences made it necessary to focus on students as units. Therefore, the researcher picked students as the research target group because most students are young and have been reached and influenced by social media (Yang et al., 2018). A young generation is more likely to accept and use new technologies than older ones. Subsequently, the researcher thought that students pursuing tertiary education level might better understand the questions under study.

3.5 Sampling and Techniques

Bless and Achola (1988) defined the term sample as the sub-set of the whole population, which a researcher investigates and whose characteristics are generalized to the entire population.

Additionally, Parahoo (1997) says that a sample is a fraction or part of a defined population's total number of units. A sample helps provide meaningful conclusions drawn from the entire population. As such, in every study, a researcher is mandated to calculate the required sample size before beginning the study, and that size remains a constant target throughout the survey (Boschetti et al., 2016). However, when a descriptive research design is used as in the case of the current study, a researcher should be mindful of sampling procedures that satisfy quantitative approaches. As Bryman (2016) advanced, probability sampling is the form of sampling procedure that helps come up with a sample. Such a procedure is used to obtain the samples used to generate the necessary information based on the questions or objectives.

A probability sample is described as one in which each population element has a known non-zero probability of being selected (Creswell & Creswell, 2018). Each sample has an equal chance of getting selected. This approach helps the researcher generalize the study's findings to the whole research population, and it resonates well with quantitative research design. Within probability, some types include simple random sampling, stratified random sampling, systematic random sampling, cluster sampling, and or multi-stage systematic sampling. However, it should be noted that each sampling procedure has an equal chance of being picked (Bryman, 2016). Thus, sampling techniques, namely simple random and stratified random sampling drawn from probability sampling, were utilized to obtain the sample (Patton, 2015).

Simple random sampling is a type of probability sampling in which a researcher selects a subset of a population at random. Each element of the population has the same chance of being chosen. Whereas stratified random sampling (also known as proportional random sampling) is a probability sampling technique in which the total population is divided into homogenous groups (strata). After stratification, then simple random sampling is conducted separately in each stratum (Kombo & Tromp, 2013). Thus, stratified random sampling was utilised to sampled colleges. These include three public collges namely, Mufulira College of Education, Kitwe College of Education, and Luanshya Technical Vocational and Training College (TVTC). Additionally, three private colleges were incorporated (Mufulira Professional, Nkana College and Lubuto College). All the colleges were drawn from one single province Copperbelt.

The rationale for selecting the named colleges was based on their population statistics, geographical position, and status (private or public). As a result, the province's private and public colleges were represented. Simultaneously, the research targeted colleges with a higher number of enrolments for more representation of the participants. It was also expected that each area would be represented based on its geographical location. As for inclusion and exclusion issues, the study included only colleges registered under the Teaching Council of Zambia (TCZ), respectively (MoGE, 2016). Those that had not registered by the data collection period were excluded. This was done to have colleges that had been granted permission to operate for legitimate data.

Accordingly, the first step in the sampling process is to clearly define the target population. However, scholars indicate that the absolute size of the sample is selected relative to the complexity of the population, the aims of the researcher, and the kind of statistical manipulation that will be used on the data (Taherdoost, 2016). There are numerous approaches to this effect, which incorporate a number of different formulas for calculating the sample size for categorical data. However, in this study, the **n = p (100-p) z2** formula was employed to determine the study sample size. Precisely, **n** is the required sample size, **P** is the percentage occurrence of a state or condition, **E** is the percentage maximum error required, and **Z** is the value corresponding to the level of confidence required. Data on student enrolment in the 2019 academic year obtained from sampled colleges stood at Fourteen Thousand, Three Hundred and Thirty-Four (14,334) as of February 5th, 2019. Hence, a total of six hundred (600) respondents were drawn from the population using the adopted formula. The researcher followed the guidelines stipulated by quantitative researchers on the percentage occurrence of a state or condition and the level of confidence when calculating the sample (Taherdoost, 2016).

As earlier stated, simple random was also utilized to obtain the sample. As such, to obtain the sample from each cohort the researcher used a simple random sampling. The rationale was to give all subsets of the sample frame equal selection probabilities. Bearing in mind that the population sample size was six hundred (600), each institution was tentatively allocated hundred (100). However, to allow for equal representation of students from each stratum, the study used proportionate Stratified Random Sampling formula drawn from stratified sampling to select the

specific number of respondents. The formula includes nh = (Nh / N) * n, Where **nh** is the sample size for stratum *h***, Nh** is the population size for stratum *h***, N** is the total population size, and **n** is the sample size (Boschetti et al., 2016).

When the formula was applied on the enrollment statistic on each college, One Hundred and Fifty-Four (154) Mufulira College of Education students were sampled; One Hundred and Sixty-Three (163) Kitwe College of Education students were also sampled, while One Hundred and Twenty-One (121) TVTC students were sampled. Besides, Seventy-Seven (77) Mufulira Professional College students were sampled, while Fifty (50) Nkana College of Education students were also sampled. Lastly, Thirty-Four (34) Lubuto College of Education students in Chingola were sampled (Table 1).

Table 1 Sample distribution of the participants (2019)

College	Number of students enrolled	Sample	Year of study		
			Year1	Year2	Year3
Mufulira college of education	3687	154	51	51	52
Kitwe college of education	3901	163	54	54	55
TVTC	2907	121	40	40	41
Nkana College of Education	1829	77	25	26	26
Mufulira professional College	1203	50	16	17	17
Lubuto College of Education	807	34	11	11	12
Total Six (6) colleges	14334	599	197	199	203
Total Sample				599	

3.5.1 Demographic Characteristics

As a reminder, simple random sampling obtains a representative sample covering different characteristics, such as gender. In this regard, the researcher obtained class lists from each cohort (years one, two, & three). The lists were used as sampling frames. Names were assigned numbers and randomly selected using the same numbers. However, the sample selection was also constrained by the inclusion and exclusion criteria. For example, all respondents were required to be social media users, preferably owning a smartphone or being members of any social group such as Facebook, WhatsApp, and Twitter for at least six months or more. Equally, the respondents were supposed to be over seventeen (17) years old to obtain informed consent. The view was not to include those who were not eligible.

Based on the preceeding guidline, 600 questionnaires were distributed; out of which 579 were returned, giving a response rate of 96.5%. The respondents selected from six (6) colleges of education included three (3) public and three (3) private colleges. In terms of sample representations, 74.9% of the respondents were from public colleges while 25.0% were from private colleges. The numbers of respondents in terms of gender were almost the same. 50.4% of the total respondents were female, whereas 49.6% of the respondents were male. When broken down by age, 56.5% of respondents were aged between 21 and 25 years. It was followed by the age band that was over the age of 26, which accounted for 27.6%, whereas 15.9% of the rest of the participants were aged between 19 and 20. Furthermore, 33.7% of the respondents were in the first year, 34.0% were in the second year, while 32.3% were in the third year (Table 2).

Table 2: Demographic Characteristics (N= 579)

Variables	Values	Frequency	Percentage
College status	Public	434	74.9%
	Private	145	25.1%
Gender	Male	287	49.6%
	Female	292	50.4%
Age in years	19-20	92	15.9%
	21-25	327	56.5%
	Above 26	160	27.6%
Year of Study	Year One	195	33.7%
	Year Two	197	34.0%
	Year Three	187	32.3%

3.6 Data collection instruments

Data collection is the strategy of gathering information on variables of interest. It is done in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes (Kombo & Tromp, 2013). Quantitative data collection relies on random sampling and structured collection instruments that are easy to summarise, compare and generalize (Creswell & Creswell, 2018). Hence, the study used the questionnaire divided into three sections: Section A: was on the personal data of the respondents (demographic information) such as gender, age, year of study, and name of the college. Section B was centered on assessing the extent of social media usage, the motive of engagement, and evaluating students' social media addiction levels. Whereas section C aimed at examining the potential

consequences that may arise from students' addictive social media use regarding to symptoms of depression, anxiety, stress, and sleep quality.

The use of the questionnaire is justified by its capacity to give reasonably inexpensive, rapid, and efficient ways of acquiring significant amounts of information from a large sample. Subsequently, different scholars have utilized questionnaires; moreover, the tool has been in existence for quite a long time (Pell, 2005). In the previous decades, the questionnaire has constantly shown it's popular in measuring numerous variables in research, such as attitude, character, and personality traits of individual persons (Likert 1932; Creswell & Creswell, 2018). Despite their popularity in collecting quantitative data, some scholars have argued on its methodological pitfalls and limitations (Jamieson, 2004; Pell, 2005; Goyder, 1986). They cited some misunderstandings, misconceptions, and abuses on using the scale for data collection. They have indicated that measuring such an individual's characteristic in a quantitative form is challenging. It was due to the perceived need to transform an individual's subjective views, opinions, and attitudes into objective reality (Guba & Lincoln, 1994; Joshi et al., 2015).

Despite such arguments, recent studies have dispelled such misunderstandings and brought out counter-arguments stating that the questionnaire scale is factual and correct (Carifio & Perla, 2007; Gadermann et al., 2012; Creswell & Creswell, 2018). Hence, the current study adopted a questionnaire involving three measuring non-clinical instruments, namely, Social Media Addiction Scale (SMAS), Depression Anxiety Stress Scale (DASS), and Pittsburgh Sleep Quality Index (PSQI) scale described in depth in the subsequence paragraphs.

SMAS, developed by Tutgun-Ünal and Deniz (2015), was used as a data collection tool on the variable social media usage and addiction. The scale follows the component model given by Griffiths (2013), which highlights the importance of dimensions in social media use and addictions. Initially, the scale development studies started with Facebook addiction Scale (FAS). Andreassen (2012) developed the Facebook addiction scale, consisting of 6 factors (salience, tolerance, withdrawal, mood modification, relapse, conflict). The assessment tool was unable to follow the ever-changing situation in social media use. However, considering the rapid increase in various social media usage among the users (Sharma & Shukla, 2016; Nasirudeen et al.,

2017), FAS was modified to accommodate other social media platforms (Andreassen et al., 2012). Hence, the FAS modification involves replacing the word Facebook with social media to incorporate Facebook, WhatsApp, Twitter, Instagram, and the like in the participants' instructions (Griffiths, 2013). SMAS constructs correspond with diagnostic addiction criteria (American Psychiatric Association, 2013). Moreover, Shahnawaz and Rehman (2020) reported that a score on the SMAS represents endangered problematic use of social media.

In this regard, Tutgun-Ünal and Deniz developed a scale to detect the social media addiction of students, and the scholars performed all validity and credibility tests. The scale consists of 41 items and 4 factors (occupation, mood modification, relapse, and conflict)measured on It is a 5 point Likert scale (Appendix 6) with "Always," "Often," "Sometimes," "Seldom," and "Never." SMAS was constructed using rigorous processes that included exploratory and confirmatory factor analyses, test-retest, and internal consistency tests to ensure stability over time and internal reliability. The specific internal consistency coefficient was found to be .97 by researchers who developed the scale and supported measurement invariance across gender (Lin et al., 2017). As for the current study, the SMAS internal consistency was supported by several indicators, such as the Cronbach's alpha coefficient scores that ranged from 0.7 to 0.9, and factor determinacy values were found to be high, in line with those reported by other studies (Monacis et al., 2017).

SMAS has been successfully utilized in other social media studies worldwide to collect data on students' social media usage and addiction. However, each study set the cut-off values for different addiction levels (Abdulahi et al., 2014; Ndasauka et al., 2016; Baltacı, 2019; Tutgun-Unal, 2020; Silomba & Akakandelwa, 2021). For example, in the initial study by Tutgun-Ünal and Deniz (2015), the lowest and highest scores obtained from SMAS were 41 and 205. The scores between 41-73 indicate no addiction, while the scores between 173-205 indicate too much social media addiction. The higher scores signify an increase in social media addiction. While in a related study by Silomba and Akakandelwa (2021) showed that scores between 8-15 were rated average; 16–23 was rated mild; 24–31 was rated moderate, and 32–40 was rated high.

Subsequently, the study adopted and slightly modified the Depression Anxiety Stress Scale (DASS) to assess the symptoms of depression anxiety and stress arising from social media usage

(appendix 7). The scale is a widely used instrument developed by Lovibond and Lovibond (1995). The DASS is made up of three self-report scales that are used to assess an individual's social, psychological, and emotional well-being, particularly depression, anxiety, and stress. Originally, all items were rated on a 4-point Likert with higher scores indicating higher psychological distress levels (Lovibond & Lovibond, 1995). The rationales for the adoption of DASS rests on its relatively high acceptable internal consistency (α = .84 for depression, .91 for anxiety, and .86 for stress) and validity (concurrent validity r = .40 - .65) in assessing stress, anxiety, and depression (Lovibond & Lovibond, 1995; Iwamoto & Chun, 2020). Moreover, the scale has also been utilized successfully in other social media studies (Labrague, 2014; Dehghani & Mahmoodabadi, 2018; Franco & Carrier, 2020; Iwamoto & Chun, 2020).

In the case of this study, the depression scale assessed the experience of upset, emotions, giving up on essential activities, disturbances, hopelessness, devaluation of life, lack of interest, or involvement in previously enjoyed activities. The anxiety scale assessed autonomic arousal, situational anxiety, rush, restlessness, worry, nervousness, and subjective experience of anxious affect. The stress scale provides insight into how respondents experienced difficulty relaxing, nervous arousal, easily upset, irritable or over-reactive low concentrations, and impatience. Before administering the scale to the participants, DASS was subjected to extensive peer review for validity purposes. Subjects were asked to use 5-point Likert scales to rate the extent to which they have experienced each state over the past six weeks while using social media excessively. Scores for depression, anxiety, and stress were calculated by summing the scores for the relevant items. The study also assessed the internal consistency and construct validity of the DASS. For example, the DASS subscales' internal consistency in this study almost replicated previous studies as it yielded high Cronbach's alphas of 0.773, 0.890, and 0.851 for depression, anxiety, and stress, respectively.

Additionally, the study used the Pittsburgh Sleep Quality Index (PSQI) to assess sleep quality. PSQI scale developed by Buysse et al. (1989) is a commonly used instrument to evaluate sleep quality and is believed to be valid and reliable (Xu et al., 2016; Zhang et al., 2016). The scale has 10 questions and seven no-clinical themes (Appendix 7). It includes subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbance, sleeping medication,

and daytime sleepiness (Buysse et al. (, 1989). The benchmark for measurement is that the higher the score, the lower the quality of sleep. In the current study, six items were adapted and utilized, and the Cronbach alpha for overall sleep quality was .846.

The modified psychological scales had varying questions, measured on a 1-5 Likert scale. The respondents were asked to choose one statement from each question that best described their experience. The standard cut-offs varied with the number of items involved. Depression items, for example, were rated on a scale of 1 to 5 for frequency of recurrence of the depression symptom. On this scale, the maximum score is 40, while the minimum score is 15 or less. When the score-test is higher, it implies a more remarkable perceived depression symptom exists. As such, the highest scores indicated the presence of more endangered symptoms of addiction effects (table 3).

Table 3: Psychological construct measurement

Psychological Variable	Tool	Items	Cronbach Alpha	Scoring (1-5)			
				Low	Moderate	High	Very High
Depression,	DASS	8	.773	8-15	16-23	24-31	32-40
Anxiety,	DASS	6	.851	6-11	12-17	24-35	24-30
Stress	DASS	8	.890	8-15	16-23	24-31	32-40
Sleep deprivation	PSQI	6	.846	6-11	12-17	24-35	24-30

After obtaining approval from the University of Zambia Research and Ethics Committees (UNZAREC), questionnaires' distributions commenced. The researcher was assisted by three (3) research assistants drawn from the colleges under study. The research assistants were trained in the basic ethics and procedures of collecting data using a questionnaire. The researcher also ensured that he recruited those teaching computer studies in their respective colleges. Equally, the researcher captured those that had also done a course in research either at degree or Master's degree. The administering of the instruments to the participants was done after they willingly agreed to participate. This was confirmed by them filling in a consent form. The researchers' follow-ups while administering questionnaires and collection contributed to the overall positive response rate of 96.5% (579 out of the 599).

3.6.1 Reliability and validity

This section addresses the instruments' reliability and validity which are integral components of instrument development. The issues of instrument reliability and validity are critical for quantitative research (Creswell & Clark, 2007). As the reminder, questionnaires were used to obtain quantitative data. Using a wide range of sources for the literature review on how previous scholars have applied reliability and validity techniques in their social media studies (Lovibond & Lovibond, 1995; Abdulahi et al., 2014; Bányai et al. 2017; Monacis et al., 2017; Iwamoto & Chun, 2020) provided unique perspectives and approaches on how the current study instruments needed to be handled bearing in mind the Zambian cultural context. These studies provided valuable knowledge in developing appropriate tools essential to answer the inquiry in this study.

3.6.1.1 Reliability

The reliability of research instruments measures the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda & Mugenda, 1999). Creswell & Clark (2011) refers to reliability as the extent to which the findings of one study may be used in other contexts. To ensure reliability in this study, the researcher ensured that different respondents understood the same questions in the same way. An attempt was made to talk to all students at once. Questions from the questionnaire were read aloud to determine if they understood what each question was asking. The researcher revisited the question where students expressed ignorance of the question.

Equally, Cronbach's Alpha was computed to ascertain whether the instruments were reliable and had internal consistency. This procedure is standard in measuring the reliability of any instrument (How2statsb, 2015). According to Tavakol & Dennick (2011), the reliability coefficient Alpha ranges typically between 0 and 1. As such, research that indicates Cronbach's Alpha between 0.70 and 0.90 or higher is acceptable (How2statsb, 2015). The researcher calculated the Cronbach's Alpha for each dimension separately to measure the consistency of scores across items. Using SPSS, the Cronbach's Alpha coefficient for the items ranged between 0.7 to 0,9, the accepted level. Thus, the reliability analysis in the current study exhibited acceptable internal consistency.

3.6.1.2 Validity

The extent to which an instrument accurately reflects or assesses the particular notion or construct that the researcher aims to test is called Validity (Mugenda & Mugenda, 1999). Punch (2014: 239) looks at Validity as "the extent to which an instrument measures what it claimed to measure." Using simple terms, Validity refers to how well an instrument measures what it is intended to measure. It has been explained that study results can meet external Validity when the findings from an investigation can be generalized to other samples, populations, or settings. Thus, similar studies may still find the same results in different education colleges in other provinces. In this study, items of the survey were developed based on content validity.

According to Hamed Taherdoost (2016:30), content validity encompasses the "evaluation of a new survey instrument to ensure that it includes all the essential items and eliminates undesirable items to a particular construct domain." Thus, the degree to which a set of items accurately reflects a content domain is known as Validity. DeVellis (2003) believes that assessing beliefs or attitudes may be evaluated for content validity by having items vetted by experts for relevance to the subject of interest. Subsequently, Hamed Taherdoost (2016:30) adds by indicating that the "judgmental approach to establish content validity involves literature reviews and then follow-ups with the evaluation by expert judges or panels." Even though the social media instrument were adapted from well-validated scales, it is imperative to confirm the Validity in the current context. This study explicitly explored students' social media usage, addiction, and possible consequences in education colleges on the Copperbelt by following reliable and valid scale development procedures that DeVellis (2003) and Hamed Taherdoost (2016) recommended.

Given the foregoing, experts from colleges and Universities with track records in quantitative research methods were invited to validate the social media instruments. Experts with sufficient expertise and at least one publication after 2015 were chosen to validate the questionnaire. This is because they can better understand new patterns in social media use, particularly in the Zambian cultural context. Two of the experts had Ph.D. degrees in Educational Psychology and Sociology of Education. Three had master's degrees in Special Education guidance and Counseling. All the five experts had excellent knowledge about emerging social media trends in Zambia and had vast knowledge in Psychology, Sociology, Guidance, Counseling, and Special

Education. After receiving the acceptance of experts, adapted versions of the instruments were sent through e-mail to them. The experts were mandated to review the instrument to ensure that the items accurately measure Copperbelt College students' behavioral trends in using social media and consequences. When the items were thoroughly evaluated, feedback encompassing suggestions was sent back to the researcher. After that, the researcher revised some of the survey items according to their suggestions (Appendices 1&2).

Furthermore, closeness in responses collected from the different places gave a sign that the questions were straightforward. Besides, there was an adequate representation of responses from all the samples. This was proven through cross-tabulations and correlations performed among the respondents from different colleges. As such, construct Validity was achieved, and the impression is in line with Creswell (2014), who contended that Validity should be centered on establishing Validity (e.g., construct) for each database (Appendices 1&2).

3.7 Data analysis

Data analysis is a systematic way of assessing the collected data using analytical and logical reasoning to describe, illustrate, condense, recap, and evaluate various data (Creswell & Creswell (2018). Therefore, the essence of data analysis is to obtain an insight into the situation under study from the multiple responses drawn from the participants. As Dawson (2002:110) contended, analysis of collected data "will depend on whether you have chosen to conduct qualitative or quantitative research, and this choice will be influenced by personal and methodological preference." Hence, the data analysis format follows the researcher's design preference (Dawson, 2002). As previously stated, this study used a descriptive design based on the use of a quantitative method.

Quantitative data includes number scores, rankings, tally marks, percentages, statistical measures, and various types of graphs (Creswell & Creswell, 2018). Analyzing quantitative data involves a tedious process (Cohen et al., 2007). In this regard, after the questionnaires were gathered, the researcher ensured that the questionnaires were thoroughly screened in terms of the eligibility criteria to ascertain if respondents thoroughly answered the questions and ensure that an accurate response rate was obtained. Before analysis, data entry and cleaning were done with

SPSS version 23.0. Then, the data were inspected by descriptive statistics, which included: means, standard deviations, minimum, maximum, and Cronbach's alpha reliability scales (Tabachnick & Fidell, 2013). As guided by Tabachnick and Fidell (2013:79), "a continuous screening variable for normality is an important early step in almost every multivariate analysis, particularly when inference is the goal." Hence, screening should not be underrated.

In making data analysis easy, categorical data were given codes, such as gender (Female 0 & Male 1). Subsequently, the researcher performed a binning process that divides a list of continuous variables into groups (Tabachnick & Fidell (2013). It is done to discover a set of patterns in continuous variables, which are challenging to analyze otherwise. For example, the four initial categories of the variable named "Duration of social media use" were reduced to two levels, namely "below five years" and "above five years." The five initial categories (displayed in Table 6) of the variable named "frequency of social media visits" were reduced to two levels, namely "daily" and "weekly" visits. The third variable, "time spent on social media per visit," that had three initial categories, was also reduced to two categories, namely "less or equal to one hour" and "above one hour." The exact process was also performed when organizing data for social media addictions levels. Statistical errors are common in scientific literature, with about half of all articles containing at least one error (Ghasemi & Zahediasl, 2012). In an endeavor to reduce such errors, SPSS was employed to check for the normality of data. Imputed data sets were checked to determine if variables were normally distributed using SPSS ('Analyze' then 'Descriptive Statistics' and finally 'Explore'). Besides, the researcher conducted a correlation analysis by generating scatterplots between social media usage and other variable involved (Appendix 4). This was done to inspect the distribution of data points and determine the direction of the relationships between variables.

All numerical analyses were done using IBM SPSS (version 23) software at a significance level of $p < 0.05$. The study performed Chi-Square tests and Pearson correlation statistical analyses. These analyses addressed the fundamental question of assessing students' social media usage, addiction behaviors, and possible consequences. Regarding the hypothesis of gender, age, year of study, college status, Chi-Square tests were conducted to assess their relationship with social media usage. The independence chi-square test is a nonparametric statistic that "is one of the

most useful statistics for testing hypotheses when the variables are nominal" (McHugh, 2013:143). The chi-square test for independence was an appropriate strategy for evaluating the relationship between each category variable included in the study.

Additionally, independent sample t-test, Anova and a binary logistic regression was conducted to predict the relationship between gender, age, year of study, college status, and addiction. The identified statistical package has the advantage of displaying the significant associations between the dependent and multiple independent variables. It also enables a comparison of the impacts of variables measured on various scales (Statistics, 2015). Thus, this approach was appropriate because the outcome variable of the model was dichotomous (1 = below five years and 2 =above five years, 1 = daily and 2 = weekly per visits, 1 =less or equal to one hour and 2 =above one hour). The study sought to determine the impact of each independent variable on the likelihood of the outcome. In this form of regression, the independent variables must be dichotomous or continuous; therefore, the categorical independent variables in this study were dummy coded before an input for analysis.

The data were further analyzed using Pearson Correlation tests with significance at the 0.05 level **(**Correlation's matrix Appendix 4). The bottom line of using 0.05 is that if the null hypothesis has a 5%, they are chance of being significant, whereas a nonsignificant P value means that there is no difference between groups. The analysis provides the means for the test hypothesis to be accepted or rejected. The analysis delivered a clear picture of how social media may exert pressure on college students' social well-being. Results from other remaining constructs were primarily analyzed using frequencies and percentages. The rationale behind the use of SPSS lies in its broad coverage of formulas and statistical routines. SPSS can also import the data from other programs, and it is annually updated to increase value and sophistication.

3.8 Ethical concern

This research is purely for an academic reason, and given the often-sensitive relationships between researcher and respondents, it was vital to obtain a permit. As stipulated by the University of Zambia Research and Ethics Committees (UNZAREC), ethical guidelines were followed. Reasonable safeguards were built based on ethical considerations and requirements.

Mingers & Walsham (2008) observed that ethics are observable behavior that shows how a researcher acts or judges actions as good (right) or bad (wrong). Cohen (2007) also emphasized the same meaning by indicating that ethics is the standards or norms of behavior that guide moral choices about our behavior and our relationships with others in research. This entails that undertaking studies involving human subjects require awareness of ethical or legitimate and professional standards. Such ethical actions can benefit the trust established between researchers and participants. Ethical challenges may emerge at any research stage, such as when researchers make the research plan, contact respondents, collect, analyze and present the data (Saunders et al., 2019). Researchers must be alert to all the stages in the research process adopted.

In this regard, the current study paid attention to ethical considerations meant to protect participants involved in the research. Among the critical aspects of concern included were to ensure that the participants were kept anonymous during and after the study. This was to assure them of their protection from personal information disclosure and general respect for their privacy. Therefore, in the case of electronic data, files were housed on a password-protected computer. Also, hard copy data files were kept under lock and key. The researcher also ensured that the data from the participants were treated as purely academic.

Equally, confidentiality for safety reasons on the social and psychological well-being of the participants was observed. In that case, respondents' names, contact (phones) were not made available on the demographic part of the questionnaire. Besides, respondents were informed of procedures for contacting the investigator within a reasonable period if any stress, depression, potential harm, or related questions or concerns arose. Where research procedures may have unfavorable effects on respondents, the researcher was quite aware that it was his responsibility to detect and eliminate or correct these effects.

Conversely, the researcher provided sufficient and clear information to help the respondent decide whether to participate in the research. Hence, participants were given a consent form to sign before participating before in answering the questionnaire. The consent form had sufficient information. It stipulated the purpose of the study, the participant's rights to withdraw from the research, and not to answer any question that seemed not to be comfortable to them. Lastly, the

research proposal was passed through one of the University of Zambia Research and Ethics Committees (UNZAREC) for approval before data collection and other preliminary processes.

3.9 Summary

This chapter served as background information to the study that aimed at exploring students' social media usage, their addiction behaviors, and the possible consequences of social media addiction in colleges of education on the Copperbelt, Zambia. The research employed the Post-positivism paradigm using descriptive research design to carry out the research. Quantitative research methodologies with regard to the research population, sample, and sampling method have been discussed in detail. The study sample included students from private and public colleges drawn from the Copperbelt education colleges.

Subsenquently, respondents were assessed using adopted standardized social media instruments, namely the SMAS, DASS and PSQIS. The three scales were subjected to experts to come up with valid instruments. Equally, the three scales were utilized to supplement one another, thus, enhancing the validity and reliability of the process. The data collection and analysis procedures used in the study have been spelled out. Subsequently, the results collected were analyzed using the SPSS to generate conclusions. The statistical procedures included were the Chi-Square tests, binary logistic regression, and Pearson Correlation tests, which were utilized with the help of percentages, frequencies to analyze the information collected. Data were presented in the form of tables. The focus of Chapter 4 is to present statistical data obtained from the six-sample college.

Chapter 4: Findings

4.0 Overview

This chapter presents findings from this study, whose primary purpose was to explore Copperbelt colleges of education students' social media usage, their perceptions of addiction levels, and the seeming impact on their social lives. The results of the statistical analyses conducted are presented with the key findings highlighted for each research object. These results are based on the data collected through a questionnaire administered to student teachers in selected education colleges. In the previous chapter, the researcher provided a detailed description of the research design. The researcher divides the chapter into six sections for the logical presentation of the research findings.

The first section presents findings from the research on the "first theme," which examines how much students use social media. Furthermore, the results based on "theme two," which is demographic differences in the extent to which students use social media, are presented in the second section. The third section, referred to as "theme three," is concerned with the motivations that drive students' use of social media. The data on the extent to which students are addicted to social media is presented in the fourth section as "theme four." The results of object five, which was designed to investigate the perceived potential impact of social media addiction on students' social lives, are contained within in the fifth section and presented as "theme five." Finally, the findings are summarized in section six.

4.1 Extent usage of social media by students

Data to address this research objective were collected from all the sampled students which were based on the variables namely; how long respondents have been using social media (in years), frequency of visits on social media platforms and time spent on social media per visit. However, before determining the extent usage of social media, it was considered necessary to identify the most common types of platforms used by students, as well as the number of followers and their logging statuses. Accordingly, it was the view of the researcher that the variables may serve as anchors for other variables being discussed in subsequent chapters.

4.2.1 Commonly used Social Media Platform

Respondents were asked to identify the most common type of platform which they use repeatedly. Thus, results from the survey show that the type of social media platform used by the majority of the respondents was Facebook, with a percentage of 59.2%, followed by WhatsApp (34.2%) and YouTube (4.1%). The social media platforms used by the least number of respondents were Snapchat, Twitter, LinkedIn, and Instagram. When bundled together, they accounted for only 2.4% of the respondents. Despite differences in social media platform adoption, the results revealed that all of the sampled students (579) were social media users, with some using more than one social media platform (Table 4).

Table 4: Commonly used Social Media Platform

Social Media Platform	**Frequency**	**Total**
Facebook	343	59.2%
WhatsApp	198	34.2%
YouTube	24	4.1%
Others	14	2.4%
Total	579	100%

4.2.2 Students' Logging Status and Number of Followers

Respondents were also asked to determine how long they stayed logged on their social media sites during the day. Table 5 reveals that 86% of the respondents were permanently online during the night, while 80.3% were ever online during both day and night times. The results further revealed that 13.3% of the respondents had 1-10 followers, 12.4% had 11-50 followers whereas 11.7% had 51-100 followers. Lastly, the majority of the respondents (62.5%) had above 500 followers (Table 5).

Table 5: Logging status and the number of followers

Variables	Responses	Frequency	Percentage
Permanently offline during	No	498	86.0%
bedtime till morning	Yes	81	14,0%
Permanently online during day	No	114	19.7%
and night	Yes	465	80.3%
	1-10	77	13.3%
Number	11-50	72	12.4%
of Followers	51-100	68	11.7%
	>500	362	62.5%

4.2.3 Duration, frequency and time spent on social media

As earlier stated, the duration, frequency, and time students spent per social media visit were also assessed to determine the extent to which students' utilised social media. Results illustrated in Table 6 show that the majority of respondents (53.4%) have been using social media for a period ranging from 1 to 5 years. This implies that this group of respondents had been using social media since 2015. The results further reflect that 28.6% of the respondents had been using social media for one year only at the time of data collection. On the other hand, only 18.1% of the respondents had been using social media for over five years.

Regarding the frequency of social media visits, results displayed in Table 6 show that a very large proportion of the respondents (78.1%) had been visiting social media platforms on a daily basis as opposed to 17.2%respondents who had been visiting social media platforms weekly. Results also show that only 4.7% of the respondents had not visited any social media platforms at the time of data collection

Concerning the time spent on social media per visit, results displayed in Table 6 show that majority of the respondents (42.5%) had been spending 1 hour or less for each visit. A substantial proportion (36.8%) of the respondents spent about two to three hours per social media visit. Only 20.7% of the respondents indicated spending at least four hours per social media visit.

Table 6: Period, Frequency and Time Spent on Social Media (N 579)

Variables	Values	Frequency	Percentage
Duration of social media use	< 6 months	35	6.0
	12 months	131	22.6
	1-5 years	308	53.4
	> 5 years	105	18.1
Frequency of visits on social media platforms	Several times a day	271	46.8
	Once every day	181	31.3
	Twice per week	57	9.8
	Once per week	43	7.4
	Rarely	27	4.7
Time spent on social media Per visit	30-60 minutes	246	42.5
	2-3 hours	213	36.8
	4 hours and above	120	20.7

4.2 Demographic Usage of Social Media

This section presents results arising from objective two, which determines whether there are any significant differences in social media usage among students by gender, age, college status, or academic year. Before delving into the association between the extent of use and demographic factors, the four initial variables named "length of social media use" were reduced to two levels, namely "below five years" and "above five years". The five initial categories (displayed in Table 6) of the variable named "frequency of social media visits" were reduced to two levels, namely "daily" and "weekly" visits. The third variable, "time spent on social media per visit," which had three initial categories, was also reduced to two categories, namely "less or equal to one hour" and "above one hour."

After ensuring that the response variables were converted to dichotomous variables, a binary logistic regression was performed on each of the three variables with the four demographic factors, namely gender, year of study, age, and college type. This was done to determine whether any of the three response variables (displayed in Table 6) could be associated with any of the four demographic factors (used as covariates in the analysis). In other words, the following Logit Link Function was used to regress each of the response variables $Y_1, Y_2, and\ Y_3$ on four demographic factors $X_1, X_2, X_3, and\ X_4$:

$$Ln\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

$Y_1 = Length\ of\ social\ media\ use, Y_2 = Frequency\ of\ social\ media\ visits, and\ Y_3 = Time\ spent\ on\ social\ media\ per\ visit$ on four demographic factors namely, $X_1 = Gender,\ X_2 = Age,\ X_3 = Year\ of\ study, and\ X_4 = College\ type.$ The logit function displayed in this equation is simply the natural logarithm (Ln) of the odds that Y equals one of the categories as specified earlier. For instance, Y_1 has two categories, “below five years” and “above five years” that have been coded as 0 and 1 respectively for analysis purposes. Using the case of Y_1, P could be interpreted as the probability that a particular student (research participant) has been using social media for over five years. That is, the probability that $Y_1 = 1$. Table 7 displays the logistic regression output for “length of social media use” on all four demographic variables.

Table 7: Logistic Regression Output on the Length of Social Media Use

Demographic Variable	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	*Upper*
Gender	-0.183	0.218	0.707	1	.400	0.833	0.543	1.276
Age	0.489	0.233	4.406	1	.036	0.613	0.388	0.968
Year of Study	0.229	0.135	2.869	1	.090	1.257	0.965	1.637
College Type	-0.201	0.245	0.669	1	.413	0.818	0.506	1.323
Constant	-1.389	0.394	12.458	1	.000	0.249		

Based on the results displayed in Table 7, it can be inferred that the duration of social media use is significantly (p = .036) associated or related to the participant's age while controlling for all other variables. This means that every unit increase in age predicts an average increase in duration of social media use by close to half a year $(\beta = 0.489)$. Taking the exponential of 0.489 gives the odds ratio of 0.388. This indicates that the length of social media use is 0.388 higher in older students than that of younger students.

On the other hand, results displayed in Table 7 indicate that none of the other three demographic variables (gender, year of study, and college type) showed a significant relationship with the length of social media use. However, it should be noted that a respondent's year of study increases the logit of the estimated log-odds of the length of social media use by an average of 0.229. Taking the exponential of this value $(\beta = 0.229)$, it suffices to point out that after controlling for other variables in the model, every additional year of study increases a respondent's odds of the length of social media use by nearly 26% $(Exp(\beta) = 1.257)$.

Table 8 illustrates the binary logistic regression output for the frequency of social media use on all four demographic variables. It can be inferred that none of the four demographic variables reflects a significant relationship with the frequency of social media use, since all the probability values are way above 0.05, the conventional level of statistical significance. This implies that the frequency of social media use is independent of a respondent's gender (male or female), age, year of study, and college type (public or private).

Table 8: Logistic Regression Output on Frequency of Social Media Visits

Demographic Variable	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	*Upper*
Gender	-0.058	0.206	0.081	1	0.777	0.943	0.630	1.411
Age	-0.242	0.227	1.137	1	0.286	0.785	0.503	1.225
Year of Study	0.141	0.127	1.233	1	0.267	1.151	0.898	1.477
College Type	-0.072	0.236	0.092	1	0.762	0.931	0.587	1.478
Constant	-1.368	0.377	13.148	1	0.000	0.255		

Nevertheless, one notable inference from Table 8 results is that a respondent's year of study increases the logit of the estimated log-odds of frequency of social media use by an average of 0.141. Taking the exponential of this value ($\beta = 0.141$), it is worth noting that after controlling for all other variables in the model, every additional year of study increases a respondent's odds of frequency of social media use by nearly 15% ($Exp(\beta) = 1.151$). Table 9 shows the results of the binary logistic regression of the estimated time of social media use per visit. Similarly, these results reflect no significant relationship between any of the four demographic variables and the estimated time of social media use per visit.

Table 9: Logistic Regression Output on Time Spent on Social Media per Visit

Demographic Variable	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	*Upper*
Gender	-0.062	0.167	0.141	1	0.708	0.939	0.678	1.302
Age	-0.104	0.189	0.301	1	0.583	0.901	0.622	1.306
Year of Study	0.085	0.103	0.686	1	0.407	1.089	0.890	1.331
College Type	-0.126	0.192	0.426	1	0.514	0.882	0.605	1.286
Constant	-0.040	0.308	0.017	1	0.897	0.961		

Like the other two response variables in Table 7, and Table 8, results displayed in Table 9 also reflect that a respondent's year of study increases the logit of the estimated log-odds of time of social media use per visit by an average of 0.085. The odds ratio of 1.089 indicates that an additional year of study that a respondent belongs to increases their estimated time of social media use per visit by approximately 9%.

4.3 Motivation for students' use of social media

Descriptive statistic tests were utilized to address objective three that aimed at determining students motivates of social media engagement. Table 10 lists the reasons that compel respondents to use social media. The most prevalent reason to use social media by the respondents is to read the latest news (93.6%), to provide entertainments through songs, games and cartoons (92,0%), check what was going worldwide (91.5%), connecting with others (86.1%) and to update their status (84.8%). Subsequently, others use it for public messaging (81.8%), seeking information/surveillance (79.6%), see friends on WhatsApp videos (75.6%). Others love to learn new things online (73.0%). Data also revealed that other respondents use it to post selfish (71.6%), making plans (68.5%), reduce restlessness (63.0%), spread rumours (46.2%) and for searching educational materials (44.5%) (Table 10).

Table 10: Motivation for using Social Media

	Responses		
	N	Percent	Percent of Cases
Reading latest news and updates	541	9.0%	93.6%
Entertainments through songs, games, cartoons	533	8.8%	92.0%
Checking what was going on online	529	8.7%	91.5%
Connecting with others in other places	499	8.2%	86.1%
Updating own status	490	8.0%	84.8%
Public messaging	473	7.7%	81.8%
Seeking information/surveillance	461	7.5%	79.6%
Love to see a friend on WhatsApp videos	437	7.2%	75.6%
Love to learn new things online	423	7.0%	73.0%
Posting selfies	414	6.8%	71.6%
Through social media I can make plans	396	6.5%	68.5%
To reduce restlessness/boredom	364	6.0%	63.0%
Spreading rumours	267	4.4%	46.2%
Searching educational materials	258	4.2%	44.5%
Total	6085	100.0%	676.6%

The items on the student's motive for using social media were further analyzed and synthesized into specific motives. Identical items were grouped together based on their statistical analysis, found in table 10 above. As a result, figure 3 depicts the combined items or motives that have been classified into three distinct outcomes. In this regard, majority of the respondents (43.0 %) perceived that they use social media for social gratification. This was followed by those who

indicated that they use social media for instrumental gratifications (34.2 %), with the least (22.8 %) who use it for entertainment gratifications.

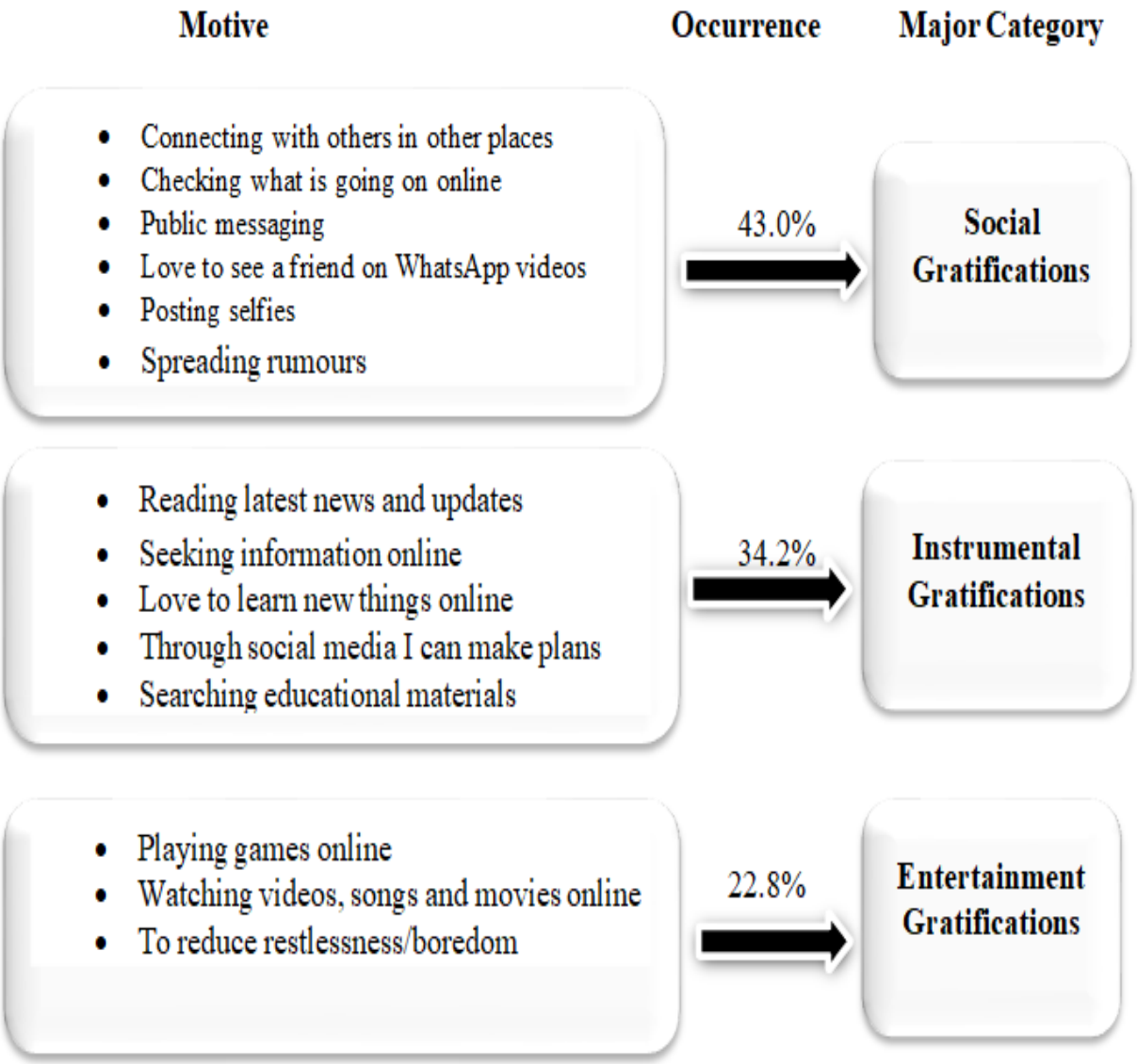

Figure 3: Motives for using social media

4. 4 Students addicted to social media

This section displays the results of the data used to analyze object four, which was designed to determine the level of students' social media addiction. However, before determining their perceived levels, it was thought necessary to assess their extent addiction to social media using key indicators gathered from their interactions with social media over the previous six months.

4.4.1 Level of student' addiction to social media

Regarding the level to which students are addicted social media a comparison was done to ascertain their current usage in comparison with the past. In this regard most of the respondents (55.3%) rated themselves very heavy users of social media, whereas 25.9% of the respondents rated themselves, heavy users. Equally, 14.7% of the respondents rated themselves, moderate users of social media; while the minority (4.1%) rated themselves rare users of social media when compared to the past (Table 11)

Table 11: Extent of social media use

Type of user	Frequency	Percentage
Rare user	24	4.1
Moderate user	85	14.7
Heavy user	150	25.9
Very heavy user	320	55.3
Total	579	100.0

In an attempt to support the preceding information obtained in table 11 above, further analysis of the data was conducted. As such, the level of addiction was measured using an eight (8) item Likert scale which was scored 1-5 namely: very rarely, rarely, sometimes, often and very often.

However, for easy presentation of the statistical data, 'often' and 'very often' have been banded together. As such, results in Table 13 showed that 72.7% reported that people complained about the respondents' usage of social media; 73.1% felt that their use of social media had gone out of control; 70.1% thought that they spent more time on social media than they had initially planned for; 67.3% kept on thinking about social media even after logging off; 64.8% were not aware of the amount of time they spent on social media; 66.0% often became troubled if they were prohibited from using social media; 63.6% spent time thinking about social media and 62.6% had tried to cut down their use of social media without success (Table 12).

Table 12: Level of addiction

Construct	Very Rarely	Rarely	Some times	Often	Very Often
People complain that I use too much social media.	9.0%	3.6%	14.7%	16.9%	55.8%
My social media use is beyond the control	4.1%	4.7%	18.1%	20.4%	52.7%
I spent more time than planned for	6.7%	4.8%	18.3%	18.1%	52.0%
I keep thinking about social media even if I logged off	14.0%	3.5%	15.2%	15.7%	51.6%
I don't get aware of the time I spend on social media	6.7%	6.9%	21.6%	18.0%	46.8%
Become troubled if prohibited social media	7.4%	3.5%	23.1%	20.9%	45.1%
I spent time thinking about social media	8.8%	4.0%	23.7%	22.5%	41.1%
I Tried to cut down without success	3.8%	2.9%	30.7%	25.6%	37.0%

As already stated, the level of addiction was measured using an eight (8) item Likert scale which was scored 1-5 namely: Very Rarely, Rarely, Sometimes, Often and Very Often. In order to come up with the measure of addiction, the scale was categorised into four measurable groups, namely not addicted, partially addicted, addicted and very addicted. These categories were spaced equally between the minimum and maximum points. Hence, the maximum score was 40, while the minimum score was 8. Respondents who scored 8-15 were rated not addicted; respondents who scored 16-23 were rated partially addicted; respondents who scored 24-31were rated addicted; and respondents who scored 32-40 were rated very addicted. The results were used to establish the extent students were addicted to social media. The results are presented in Table 13 below. The results reveal that 1.2% of the respondents were not addicted, 5.9% were partially addicted, 35.6% were addicted, and 57.3% were very addicted to social media. These results, therefore, reveal that 98.8% of the respondents were addicted to social media.

Table 13: Level of addiction among participants

Level	Frequency	Percentage
Not addicted	7	1.2
Partially addicted	34	5.9
Addicted	206	35.6
Very addicted	332	57.3
Total	579	100.0

4.5 Potential impact of social media addiction on students' social life?

This section presents data based on research object five. Respondents were asked to respond to the experiences they thought using social media excessively had on their social lives with reference to psychological symptoms. Depression, Anxiety, Stress, and Sleep deprivation symptoms have all been identified as subthemes. As earlier stated in chapter three, the indicators have been developed based on the multiple questions that were developed using standardised DASS and PSQI scales (appendix 3). Cross-tabulations, frequency descriptions, chi-square statistics, and the scatter plot were utilised to assess possible consequences of social media addiction that may impact their social live.

4.5.1 Students' social media addiction and Depression Symptoms

In this subcategory, respondents were asked eight different questions about their experiences with excessive social media use in the previous six months. The study established that 79.7% felt depressed when not logged on social media; 72.9% felt upset when trying to cut downtime on social media; 73.6% indicated that people's comments left them helpless and confused; 71.3% used to be happy if they have more social media friends and unhappy with less; 67.2% felt emotionally exhausted; 61.7% used to lose interest in other activities. 57.6% felt life to be meaningless or worthless; whereas 54.1% wanted to give up on everything (appendix 3).

Depression symptoms among respondents were determined using eight items measured on a 1-5 Likert scale. The depression symptom levels were categorised as Very high (32-40), high (24-31), Moderate (16-23), and Low (15-22). The results are summarised in Table 14; and 38.3% of the respondents scored very high, 36.4% scored high, 18.5% scored moderate, and 6.7% scored low depression symptoms levels. When very high and high are combined, the results show that 74.7% of the respondents experienced high levels of depression symptoms.

Table 14: Table Degree of Depression Symptoms

Degree	Frequency	Percent	Cumulative Percent
Very High	211	36.4	36.4
High	222	38.3	74.8
Moderate	107	18.5	93.3
Low	39	6.7	100.0
Total	579	100.0	

4.5.2 Students' social media addiction and Anxiety Symptoms

As a reminder, this segment was derived from objective five, which was meant to assess the potential impact of social media addiction on students' social lives. The displayed results are based on the extent of agreement respondents felt on some statements related to symptoms of anxiety and their media usage in the past six months.

Thus, results obtained from the survey indicate that 79.7% felt excited or alert always for incoming notifications; 69.8% were worried about missing out important things when offline; 62.2% felt restless or tensed up and ready to explode when offline; 62.0% felt some rush or emotionally high; 57.9% felt increased blood pressure, body trembling and rapid heartbeat whenever they saw a notification whereas, 53.6% felt worries and emotional when they came across the displeasing contents (appendix 3).

Just like in depression psychological indicators presented above, anxiety among respondents was determined using six items (6) measured on 1-5 Likert scale and were categorised as Very high (24-30), high (18-23), Moderate (12-17), and Low (6-11). In this regard, Table 15 below shows, 37.1% of the respondents scored a very high degree of anxiety indicators, and 28.0% scored high degree, 23.7% scored moderate, and the least scored 11.2%. When two levels (very high and high are combined), the results showed a high level (65.1%) of anxiety among the respondents.

Table 15: Degree of Anxiety symptoms

Degree	Frequency	Percentage	Cumulative Percentage
Very High	215	37.1	37.1
High	162	28.0	65.1
Moderate	137	23.7	88.8
Low	65	11.2	100.0
Total	579	100.0	

4.5.2 Students' social media addiction and Stress Symptoms

Just like in the preceeding sub theme, stress symptoms were also assessed in relation to the potential impacts of social media addiction on students' social lives (objective five). The outcomes are based on how much respondents agreed with certain statements about stress symptoms and media usage in the previous six months. It was also necessary to capture how

respondents were stressed when using social media using eight item statements. In this regard, 75.0% used to feel symptoms of stress after receiving intimidating messages; 64.4% felt nervous and stressed out for being judged for using untrustworthy comments; 61.5% used to fear missing essential things when not online; 55.8% felt upset for no reason and found it difficult to relax; 54.0% tended to over-react to situations for no apparent reasons; 52.3% used to find it hard to concentrate or think properly; 51.7% were intolerable to anything that prevented them from progressing, while 49.5% believed they were not worth much as a person (Appendix 3).

Stress among respondents was determined using eight items (8) measured on 1-5 Likert scale and were categorised as Very high (32-40), high (24-31), Moderate (16-23), and Low (8-15). The results are summarised in Table 16 below. Hence, 36.4% scored a very high symptom of stress level, 19.9% scored high level and 28.3% scored moderate level while 15.2% scored a low level. When very high and high levels are combined, the results seem to indicate a high level (56.3%) of stress symptoms amongst the sampled college students.

Table 16: Degree of stress Symptoms

Degree	Frequency	Percentage	Cumulative Percent
Very High	211	36.4	36.5
High	115	19.9	56.4
Moderate	164	28.3	84.8
Low	88	15.2	100.0
Total	578	99.8	

4.5.3 Students' social media addiction and Sleep deprivation

Sleep deprivation was also evaluated based on object five. When determining the impact that social media had on respondent's quality of sleep various attributes were captured through varying questions. In the first place, respondents were asked to estimate the number of hours they spent sleeping at night. There were notable variations on the results among respondents.

As shown in Table 17, 19.7% used to sleep 8 hours and above whereas the majority (51.3%) used to sleep between 5 and 7 hours and the rest (29.0%) slept below 5hours. Overall, it becomes very clear that 80.3% of the respondents spend less than 7 hours sleeping as they spend most of the night on social media.

Table 17: Time spent sleeping after visiting social media at night

Time	Frequency	Percentage	Cumulative Percent
8hours and above	114	19.7	19.7
Between 5 and 7 hours	297	51.3	161.4
Below 5 hours	168	29.0	100.0
Total	579	100	

Further more questions were asked that aimed at determining possible symptoms of sleep deprivations with regard to their excessive social media use in the past six months. The scale which had six items in the survey showed that 66.8% found it difficult to sleep because of fear of missing out; 66.2% use to experience headaches, pain in the eyes or body weakness due to too much sitting or lying down during bedtime; 64.7% failed to follow own set rules of not visiting social media for specific a period during bedtime; 64.4% phone screen light kept on disturbing them even when they had switched off their phone during bedtime; 60.8% experience difficulties going back to sleep once they woke up to check on the notifications whereas 64.3% used to dose in class because of using social media at night (Appendix 3).

As earlier stated, sleep deprivation was measured using six (6) items which were scored on a 1-5 Likert scale. In this regard, sleep deprivation levels were classified as Very High (24-30), High (18-23), Moderate (12-17), and Low (6-11). The results are summarised in Table 18; and 39.6% of the respondents scored very high levels of sleep deprivation symptoms, 23.5% scored high, 26.4% scored moderate, and 10.5% scored low Sleep deprivation symptom levels. When the first two levels (very high and high) are merged, the results show that 63.1% of the respondents experienced high levels of sleep deprivations symptoms.

Table 18: Degree of Sleep Deprivation Symptoms

Degree	Frequency	Percentage	Cumulative Percent
Very High	229	39.6	39.6
High	136	23.5	63.0
Moderate	153	26.4	89.5
Low	61	10.5	100
Total	579	100.0	

4.5.4 Association between Social Media Addiction and impact on student's social life

A Pearson correlation test was performed to determine whether social media addiction level was associated with the perceived impact on a student's social life based on psychological symptoms, namely Depression, Stress, Anxiety, and Sleep deprivation. The test was conducted at an alpha level of 0.01 to examine the relationship between the variables.

Results are presented in Table 19 and they reveal that the level of addition was negatively correlated with depression (rho = -0.158, p = 0.001), anxiety (rho = -0.099, p = 0.017), stress (rho = -0.160, p = 0.001), and sleep deprivation (rho = -0.113, p = 0.006) based on the negative association obtained. Similarly, the scatter plot analysis was used to either refute or confirm the negative correlation found on all four variables (Appendix 4). After analysis, the results matched perfectly. The plot reveals that high values of X are associated with low values of Y, implying that the two variables change in the opposite direction (if one increase, the other decreases and vice versa).

Results taken together signify that when there is a spike in students' social media addiction, their social lives get threatened by the psychological variables (depression, anxiety, stress, sleep deprivation). In contrast, when students become less addicted to social media, their social lives improve and vice versa (inversely). Therefore, a negative correlation exists between the variables that impact students' social lives.

Table 19: Correlations Results of Perceived Psychological Symptoms (n=579)

Perceived Symptoms	Mean	SD	Pearson Correlation	P Value	Comment
Degree of Depression	18.82	7.433	-.158**	000	Negative correlation
Degree of anxiety	14.78	6.496	-.099*	.017	Negative correlation
Degree of stress	20.90	9.167	-.160**	.000	Negative correlation
Degree of sleep deprivation	14.41	6.861	-.113**	.006	Negative correlation

**. When the correlation is significant at the 0.01 level (2-tailed).

*. When correlation is significant at the 0.05 level (2-tailed).

4.6 Summary

The results that were obtained through quantitative research design indicate that Facebook and WhatsApp are the most popular social media platforms, followed by YouTube. In terms of extent of usage, this study showed that all students had been using social media for more than two years. Equally, the chapter has also shown that students were visiting social media platforms once or several times a day. On visitations, students were spending less than three hours and more than 30 minutes daily (30 > 3 hours). This situation explains why they were reported to be staying permanently online during the day and night.

It was further shown that the length of social media use is significantly ($p = .036$) associated with or related to the participant's age while controlling for all other variables. This means that every unit increase in age predicts an average increase in the length of social media use by close to half a year ($\beta=0.489$). On the other hand, results indicate that none of the other three demographic variables (gender, year of study, and college type) showed a significant relationship with the extent of use of social media. Results also indicate that majority of survey respondents which accounted for 43.0 % use social media for social gratifications. This was followed by those who indicated that they use social media for instrumental gratifications (34.2 %), with the least (22.8 %) who use it for entertainment gratifications.

Furthermore, levels of social media addiction have also been presented. The addition level is based on students' past and present experience of social media use, which has been categorised as: not addicted, partially addicted, addicted, and very addicted. Overall, the analysis presented indicates a high level of addiction among the students. Regarding students' impacts of students' social media usage on their social lives, results showed that students' usage of social media was associated with symptoms of depression, anxiety, stress and sleep deprivation. Further analysis also yielded a weak negative correlation across all the psychological variables (depression, anxiety, stress, and sleep deprivation), which signified the presence of an inverse association. This signifies that psychological variables threaten students' social lives when there is a spike in social media addiction (depression, anxiety, stress, sleep deprivation). Students' social lives improve when they become less addicted to social media, and vice versa.

Chapter 5: Discussion of the Findings

5. 0 Introductions

This chapter addresses the study's findings, focusing on the meanings, significance, and applicability of the findings. It concentrates on describing and interpreting the results, demonstrating how they connect to the literature review and research objectives, and presenting an argument to support the study's conclusion. The findings are discussed in the very same way as they were in the previous chapter and relate to the extent to which students use social media, differences in social media usage among students by demographic factors, and motives that compel students to engage in social media use. The chapter also discusses students' levels of social media addiction as well as the perceived impact of addiction on students' social lives.

5.1 Extent usage of social media

This section discusses the extent to which students use social media based on the variables of commonly used social media platforms, duration of social media use (in years), frequency of visit, and time spent on social media per visit. It also incorporates logging status and the number of followers students have online.

The current study found that all the sample students in the Copperbelt colleges of education were social media users. This is due to the fact that, in the survey, all 579 respondents reported using one or more social media platforms. However, when compared to the old ways of social media acceptance, the discovery illustrates how the social media industry is attracting students in terms of adoption. This situation was quite different in previous decades due to a few students who were using the media by then (Pretext, 1998). The result conforms to previous findings (Apuke, 2018; Shilip & Arun-Kanti, 2019), which also found that the entire sample of students were social media users.

Building from the above, the current study identified Facebook (59.2%) and WhatsApp (34.2%) as the most popular platforms among students. The general explanation surfaced on the adoption could be that the two platforms are easier to navigate, very user-friendly and most of their followers use them (Nyagah et al., 2019). Moreover, it is not surprising to note that Facebook is one of the popular sites considering that it was initially invented for college students to

communicate with one another (Smith & Anderson, 2018). When the current results are compared to previous scholars, an almost similar trend in students' preferred platform adoptions was found (Pempek et al., 2009; Apuke, 2018; Nyagah et al., 2019). In contrast, other studies done in different years and on diverse demographic populations have brought forward contradicting findings (Ahad & Lim., 2014; Meşe & Aydın, 2019). These studies found that Facebook was no longer the predominantly used platform among the students. However, when the adoption issue is viewed worldwide (Facebook, 2020), it may be prudent to counter-react and argue that some platforms such as Facebook have maintained their dominance and stability. Nevertheless, it could be explained that the variations incurred in other regions may be driven by the fast growth rate of social media technologies. Social media technological advancement varies from one country to another (Social Media Fact Sheet, 2018). For example, if Zambia is compared to China, which appears to be more advanced in media technology, differences in the adoption of preferred platforms may be observed. Countries with advanced social media technology, as opposed to those with less, can easily incorporate social media apps that may make the platforms more appealing to adopt.

Besides, the study found that an overwhelmingly large proportion (71.5%) of students have been using social media for more than one year. Thus, it is worth mentioning that a significant proportion of contemporary college-age students began interacting with social media at a young age before they entered college. The reason for this could be that computers have been available in their homes and at school throughout their childhood, and the phone became a part of daily life before they entered college (Manasijevic et al., 2016). As such, this study joins other academics that argue that contemporary college students are one of the demographics that have largely accepted media technology into their lives and began using it at a tender age (Win et al., 2017; Ahmer & Tanzil, 2018).

However, a relatively small number of students, which accounted for 6%, reported being on social media for less than six months. This situation may indicate that some students experience specific gaps in learning new technology, primarily attributed to lagging in terms of social media applications and usage. Ideally, modern social media differs from traditional media in accessibility, interactivity, usability, and ubiquity (Ahmer & Tanzil, 2018). It is quite compelling

to join (Sasikumar & Pitchandi, 2020). Hence, the relatively small number of students could be caught in the web of the inability to acquire advanced communication gadgets. Such media hindrances may include a lack of a smartphone, a lack of Internet accessibility, and some may also have less experience using the ever updated media platforms (Saleem & Mengyan, 2017).

Subsequently, it appears that the widely accepted social media use by students corresponds to an increase in the amount of time individual students spend online. For example, this study established that most students visit social media platforms once or several times a day. Students were also spending less than three hours and more than 30 minutes daily (30 > 3 hours) per social media visit, a situation that may be regarded as a high extent of usage (Tutgun-Unal, 2020). This circumstance is seen as the reason they are reported to be staying permanently online during the day and night. The finding conforms to various previous studies that observed an almost similar trend (Akakandelwa & Walubita, 2017; Shilip & Arun-Kanti, 2019). However, results in this study suggest that students spend a significant portion of their social lives on media websites, particularly Facebook and WhatsApp. One possible explanation for the perceived exceptionally high use of social media is that students are less free from parental oversight and adult supervision when they join college. As a result, they make independent, self-directed decisions online. They have the option of remaining online indefinitely without being bothered by anyone, a condition that forces them to participate in constant surfing (Lenhart et al., 2015).

Additionally, the study discovered that students had more than 500 social media friends, particularly on Facebook and WhatsApp, which were highly favored. One probable explanation for such a high number of friends online could be that students are in the habit of developing the desire to increase the size of their community on social media with the view of growing affirmation, recognition, and support from followers (Buran & Doan, 2018). This could mean that online interaction is the primary source of their accepted living. The results obtained may be related to three previous studies with similar findings. For example, Buran and Doan (2018) discovered that students had more than 250 friends. Petersen and Johnston (2015) asserted that students had between 301 and 400 Facebook friends, whereas Johnston et al. (2013) found between 100 and 150 Facebook friends.

Even though the numbers of followers in the current and previous studies vary, it could be argued that having more than 100 followers is enough for a student to be overwhelmed. This is because they will be able to attend to their own social media needs and those of their followers (seeking and obtaining gratification). They may choose to be perpetually online to fulfill their gratification. This notion supports the U & GT; accordingly, students with a vast number of online friends' networks have a lot of online gratification demands. These needs may include responding to calls, attending tags, watching friends' live streams, commenting on friends' posts, and many other activities (Buran and Doan, 2018). As such, it is uncommon to find students disregarding any friend requests made online. This is because it makes them more satisfied, even though this could lead to addiction (Shilip & Arun-Kanti, 2019).

Besides, it was discovered that most of the respondents used to be online continuously during the day and night. This implies that their Internet data used to be almost permanently on 24/7, a situation which may have attracted constant checking of incoming calls and notifications. This scenario gives a clear picture of why the majority of the students reported frequently visiting social media several times a day. Data obtained in this study supports Lenhart et al. (2015) and Shilip and Arun-Kanti (2019), who found that most of their sampled students used to go online almost constantly. Thus, the outcome of the current study supports the U & GT, which entails that if the results arising from social media are satisfying, then constant surfing may be enhanced. Users may log in several times in search of gratification (Charney & Greenberg, 2002). Consistency in the desire to satisfy needs creates a conditioned situation of visiting social media several times a day. The circumstance illustrates how students become overwhelmed by social media and how it may lead to unhealthy social lifestyles. Students may opt to disregard essential social life activities because they may favor online gratification.

Generally, this study established that all the sampled students were social media users and had been using social media for more than two years, particularly Facebook and WhatsApp, which were highly favored. This offered students more experience in social media at a tender age. The research further discovered a higher extent in students' use of social media based on their behavioral tendency to visit social media platforms once or several times a day and spend less than three hours and more than 30 minutes daily (30 > 3 hours) per social media visit. Equally,

the research also established that students had more than 500 social media friends, and most of the respondents used to be online continuously during both day and night. Therefore, results are concerning as student appeared to be overwhelmed with online activities, a circumstance that requires urgent interventions.

5.2 Demographic Usage of Social Media

The data from objective two, which was generated to determine the extent of social media use regarding demographic factors, are discussed in this section. The variables utilized in the analysis are identical to those used in the first objective. These include the duration students have been using social media, the frequency of visits, and the time spent on social media.

The results of this study confirmed a statistically significant difference ($p = .036$) in the association between duration regarding social media use and age components of the respondents, while controlling for all other variables. This inferred that every unit increase in age is related to an average rise in the period of social media use by the students. The rational explanation for the results may be that most respondents had been using social media for more than one year. In that case, it could be indicated that some students had vast experience in the use of social media compared to those who had fewer periods of use. Individuals with more Internet experience use social media more often and spend more time in such venues (Andreassen et al., 2017).

Variation in the duration (experience) and age matches the genuine reality of the situation on the ground, as most of the respondents in the survey had just graduated from social media-restricted secondary schools a few years before this study commenced. Most secondary schools have enacted school-based practices prohibiting students from bringing their phones onto the school or into class, but this is not the case in educational colleges. As a result, they may have less experience using social media in such schools compared to when they entered college. This means that the amount of experience gained from using social media for a longer period is linked to the students' age. The findings may be supported by a previous study (Win et al., 2017), which found that over 75% of students who joined social media for the first time increased their usage as they got older. Practically, results provide knowledge on how college counselors can take into account students' experiences when addressing problematic social media issues.

In contrast, this study established insignificant results when gender (0.777), age (0.286), year of study (0.267) and type of college (0.762) in conjunction with the frequency and time spent per visit were analysed, while controlling the variable of duration. The results were not significant since all the probability values obtained were way above 0.05, the conventional level of statistical significance. The general assumption here is that the extent of social media usage is the same across the demographic variables. When explaining the likely cause of the similarities, it may be prudent to focus on the variable of age range. As revealed by the this study, all the 579 sampled students were social media users and were almost all in the same age range (19–35), the youthful stage. As such, a variation may not be attainable because most youths display similar social media behavioral tendencies. For example, platform adoption preferences were similar (Facebook & WhatApp); they all had more social media followers. They all visited social media frequently, with essentially identical motives. The time they spent on social media also appeared to be related. As a result, the circumstances lessened the likelihood of disparity in their social media usage. Thus, achieving significant results in the analysis seems not to be attainable. Findings seem to agree with the other four studies despite being conducted in different countries by different researchers at different times (Budden et al., 2007; Perrin, 2015; Sasikumar & Pitchandi, 2020; Pérez et al., 2021). These studies showed that students use social media at nearly comparable levels with related motives.

The results of the insignificant are essential for two reasons. First, they suggest that young people exhibit similar behavior regarding social media usage. Subsequently, they adapt to new technology more quickly than elderly ones. They have a more instinctive and spontaneous engagement with digital technology than the older generation (Bányai et al., 2017). As such, the addictive level among youth is likely to be the same. Secondly, they give the impression that student' social media usage may continue to rise with similar tendencies regardless of gender, age, academic year, or the type of college. This is due to social media technology's rapid progress (Andreassen et al., 2017), which is occupying every available space on the Copperbelt and Zambia as a whole (ZICTA, 2018). The practical implication of the findings could be that remediation intervention strategies could be similar and could be easily applied once alarming levels are noticed. This is due to similarities in social media usage, which may not necessitate the consideration of separate remedies because all remediation procedures may be the same.

5.3 Motivation for Social Media Use

This section discusses the motivators that compeled students to engage in the use of social media. The motives have been categorized as intrinsic and extrinsic motivators. The details are presented in the subsequent paragraphs.

The study discovered several intrinsic motives that characterized students' use of social media. In particular, what emerged from the analysis as the highest driver of social media use among the students was reading the latest news and updates, an item which summed up to 93.6%, followed by entertainment (92.0%). The findings are not surprising because students do not like missing out on what is going on worldwide. Perhaps that could be why some respondents said that they used social media to check what was going on online. One probable explanation for such perceptions could be that social media provides a preferred environment for up-to-date information. Even in the area of entertainment, students could have enjoyed looking for the most recent movies, songs, and other information, as they provide amusement and fancy (Guliz & Basak, 2018). Moreover, this study established that respondents (63%) used social media to kill boredom. Since entertainment attracts less restlessness (Tsai et al. 2017), it is conceivable that social media is used to offset boredom in certain circumstances as students surf online. Hence, it could be assumed that students intrinsically engaged in social media solely as an area of information utility, relaxation, and entertainment (videos, live video, sharing photos, games, chatting), which intrinsically provided them with self-gratification. This study backs up previous research (Meşe & Aydn, 2019), which found that college students use social media because it enhances enjoyment as students read the most up-to-date information.

Another interesting motive established in this study is that respondents intrinsically engaged in social media use to enhance connections with others. Along this line, respondents were in the habit of striving to create social ties with others in other places, because a majority (81.8%) of the respondents preferred public messaging. In this regard, students were intrinsically using social media to create networks with others. This connection helped them with varying motives, such as posting selfies as they looked for online friends. As such, social media plays a crucial role in promoting collaboration and linkage to develop virtual communities across regions. In

line with other scholars, it is clear that social media is the most efficient way students make frends within the campus and in faraway places (Eid & Al-Jabri, 2016).

Subsequently, surveillance, which is an extrinsic motive, appears to have also provided a suitable route for students to spy on and monitor what other students were doing without their knowledge. Hence, the most likely explanation could be that students' used social media to get updated secret information through surveillance as most (79.6%) of the students cherished it. However, one would wonder if spying would not raise privacy issues and legal implications owing to the nature of the concept. Social media could be seen as a fertile ground through which secret information could be obtained and misused (Salminen & Degbey, 2015). Nonetheless, the alleged use has the potential to engage students in gathering data that would otherwise be difficult to get within and outside of college. This implies that caution needs to be exercised once the quest for secret information-seeking dominates students' minds to avoid legal issues.

Furthermore, this research found that students used social media to express autonomous opinions by spreading rumors both within and outside of college. Ideally, gossip could be possible because social media appears unrestricted. Students freely connect to a school's campus life 24/7 through the power of their smartphones. As such, it could be argued that Facebook and WhatsApp provided a safe environment where most students found it easier to post their hearsay to groups or the general public without any restrictions. This significant finding is in congruence with previous research (Tsai et al. 2017), which detected gossip as the most cherished motive that compelled students to engage in social media usage. However, the students should exercise caution when their need for disseminating hearsay arises. At times, the motives may generate a detrimental effect on the social life of students once it is done inappropriately (Aydin, 2021).

Consequently, it is concerning to note that the use of social media for education purposes was the least motive obtained in the study. In that case, one would question the direction in which the students are facing. As the implication suggests, students are not yet proficient at utilizing social media values in academia (Casale & Fioravanti, 2017). They seem to be using social media more for recreational purposes and significantly less for educational purposes. It also explains why the Facebook and WhatsApp platforms were the top listed social media platforms amongst students

in the current study because they provide recreational activities (Karakose et al., 2016). The results correspond to one study that established that most students use Facebook for social purposes other than for education (Manasijevi et al., 2016).

Based on the preceding observation, the behavioral aspect appears to contradict their core purpose of being on the campus. Since the core purpose of Facebook and WhatsApp for the youth is centered mainly on leisure, students may find themselves worn out. Such a situation may be due to excessive usage of social media and a failure to shut it down preciously during learning. The trend may adversely affect their studies (Sandra & Ismail, 2016). In practice, while students may enjoy all of the benefits that social media provides, they should keep in mind that the same platforms may make it difficult to pursue their academic goals (Casale & Fioravanti, 2017). It could be advantageous if lecturers considered students' social media motives and encouraged them to also use social media effectively in the learning process. These findings show that colleges should put in place awareness mechanisms aimed at helping students rationally think about their purpose of being on campus while exercising their social media motives in their daily lives.

Generally, when the results were almalgamented, the study discovered that most of the students (43%) used social media more for social gratification (connecting with others; facilitating interaction with friends; keeping up with what others are doing). This was trailed by instrumental satisfactions (information seeking, learning new things), which accounted for 34.2%, and the least, which added up to 22.8%, was for leisure gratifications (killing idle time; entertainment). These were the most effective uses and gratifications that motivated students to use social media. As a result, the motives appear to point to the establishment of social ties, as they used it for information utility and pleasure. Hence, it is more common for students to join and participate in media platforms as they try to seek and obtain pleasure content (Karakose et al., 2016). This shows that college students have a strong desire to pursue both their internal and external gratifications (Munsaka & Matafwali, 2013).

In a nutshell, this study has discovered that social media helps bridge the recreation gap and access to information as students interact and communicate. It seems to be an entirely acceptable

way of living amongst students (Andreassen et al., 2017). In that case, it is possible to attribute that social media platforms such as Facebook have unique features that facilitate accessibility and flexibility in interactions. The findings are explained based on U & GT and the MSDT. They show how dependence and gratification on using a specific medium lead to an intrinsic and extrinsic desire to engage in media usage. Practically, the results offer a fertile ground for lecturers to decide which teaching technique can provide social, instrumental, or recreational opportunities to enhance learning via preferred media platforms.

5.4 Level of Addiction to Social Media

This theme focuses on objective four, which was meant to determine the students' levels of social media addiction among college students. Details are discussed in the following paragraphs.

This study found a significant shift in students' social media usage compared to their past. Overwhemingly, 81.2% of respondents perceived that they were more active social media users than previously. A plausible explanation for the observed surge could be attributed to smartphone acquisitions. Of late, most students find it easier and more enjoyable to interact using smartphones (Al-Menayes, 2015). Such phones come with advanced features that encourage students to spend more time online than before (Sasikumar & Pitchandi, 2020). Thus, it is uncommon to find students disregarding social media. Results from this study affirm previous research findings that indicated significant increases in students' social media usage over time (Nyagah et al., 2019). However, the implication of the dramatic change in media engagement in the current study is that students will be increasingly likely to use these platforms heavily and dangerously in the coming years based on the constant development of captivity apps (Sasikumar & Pitchandi, 2020). This is a situation that was completely out of the question less than a generation ago. As it stands now, it requires urgent attention.

Furthermore, this study discovered that the majority of students (64.8%) were not aware of the amount of time they spent online. In particular, students spent more time on social media than they had initially planned. This shows that students dedicate so much time and effort to social media that it ruins their attention spans for gauging the amount of time they used to spend online. This circumstance explains why most (73.1%) of them perceive online usage to be beyond their

control. Failure to have a good road map for social media visitation and use has been reported by some academics to be a potential behavioral drive of social media addiction (Idubor, 2015; Elhai et al., 2016). Hence, the current result suggests that students were able to develop the psychological problem commonly known as "fear of missing out," which has been described by Alt (2015) as a pervasive apprehension that other students might be having rewarding experiences from which one is absent. The desire could have forced students to stay continually connected with what others were doing, resulting in their failing to cut down their usage. This situation compels students to be addicted to social media, a circumstance that is consistent with previous scholars' descriptions of social media addiction (Tutgun-Unal, 2020). Such students significantly lose a sense of time control as they frequently use social media (Jelenchick et al., 2013). Because of this, it is not surprising to observe that 67.3% of students kept thinking about social media even after they had logged off. This is due to the value they attach to social media.

The aftermentioned results are noteworthy for two reasons. First, they seem to demonstrate that students' heavy social media use is based on three distinct dimensions; the user's experience, time spent on social media, and social media satisfaction. The three aspects are quite significant in enhancing social media addiction among respondents (Tutgun-Ünal & Deniz, 2015). Students who spend more time online and have been using social media for a long time, as in the case of this study, are more likely to fall into the category of addiction due to the gratification they seek from friends online and those that they obtain through surfing alone.

Secondly, the study seems to indicate that awareness of the negative aspect of excessive social media usage is lacking among students. Precisely, most of the students were never aware of the time they spent online, a situation that may indicate that they used to put off some important tasks because of social media demands. This explains why most of their social media friends used to complain. However, RAT refutes the assertion by guiding that addicts understand and recognize addictive behaviors but rationally choose to continue with them because they value the addictive behavior over the potential adverse costs of said behavior (Kwon et al., 2015). Along this line, it could be stated that the outcome is problematic based on the number of tasks that students execute daily, as some activities, such as academic work, may suffer.

Supporting the preceding discoveries is the amalgamated outcome the current study yielded. Thus, this research established a high level of social media addiction among the students. This is in view of the added up statistical data of 92.9% that was obtained. Along this line, it is reasonable to assume that a higher addiction level characterized students' usage of social media. In that case, students appeared to be overwhelmed with online activities. Nowonder, most of them reported being permanently online; a situation which is by all accounts troubling. This is due to their lack of awareness of their social media excessive usage tendencies. Results are consistent with previous studies outside Zambia (Ahmer & Tanzil, 2018; Simsek et al., 2017; Atalay & Tekdemir, 2020). These studies found a higher level of addiction to social media usage among students. However, the probable explanation for the higher level of social media usage in the current study could be based on the rapid technological developments that have so far engulfed the social media industry. For example, lately, Zambia has been witnessing a boom in the easy accessibility of communication gadgets such as smartphones and computers, coupled with an increase in social media connectivity and networking advancements from 2G, 3G, and 4G mobile band strength (Mambwe, 2015; Barreto et al., 2016). These services greatly accelerate the students' social media usage (ZICTA, 2018; Sasikumar & Pitchandi, 2020).

Therefore, the current status appears to be frightening as of late, given the increasing trend in usage and consistent social media industry advancements. Undoubtedly, the situation may spiral out of control in the near future, given the easy accessibility of social media nearly everywhere (ZICTA, 2018). This reaffirms the guidance given by MSDT which advocates that when users chose a particular media, they develop higher dependence on it, a situation which induces addictions and other negative consequences such as experiencing potential symptoms of depression (Cramer & Inkster, 2017). Equally, RAT also support by indicating that the more addicted a person becomes, the consumption of the product increases, and the myopic view of the present grows with less forward-thinking (Becker & Murphy, 1988). This unpleasant observation points to why some scholars have made various recommendations on the urgent need to institute practical, effective institution alleviation strategies to reduce media adverse impacts on students' social lives (Vondrác & Gabrhelk, 2016; Akakandelwa & Walubita, 2017; Dubicka & Theodosiou, 2020). For this reason, a call for profound urgency in the provision of the right step is required. Any lapse may cause havoc in colleges of education on the Copperbelt.

5.5 Perceived impact of social media addiction on students' social life

This segment delves into data from study objective five, which aims to investigate the potential impact of social media addiction on students' social lives. Depression, Anxiety, Stress, and Sleep deprivation symptoms are the perceived impacts under discussion.

5.5.1 Students' social media addiction and Depression symptoms

It was apparent in this study that the majority of respondents (79.7%) used to feel depressed when not signed onto social media. Perhaps, failure to be online in certain instances could be the source of their observed sentiments of bewilderment, meaningless life, restlessness, and loss of interest in other activities, which some scholars have identified as having a negative impact on students' social lives (Kalkan and Bhat, 2020). Undoubtably, it could also be argued that their increased need for social media usage may have contributed to this predicament in totality. In contrast, it was unexpected to learn that when students used social media excessively, they considered cutting connections with it, though again, they used to feel upset with such action, circumstances that are confusing to comprehend.

Based on the preceding findings, it is possible to assume that students were trapped on two webs. On one side, they used to experience meaningless life when not signed on, and on the other side, they used to develop the desire to cut ties with high social media use while feeling miserable again. As it is known, social media is, by all means, captivity (Niranjjan et al., 2017). Students may not stay offline longer once they are not logged on due to their higher demand for social media gratifications. Results appear to indicate that increased social media usage is related to depression symptoms and these results seem to be intertwined in some ways. To some extent, findings uphold that in the study by Aydin (2021), who found that increased use of social media tools like the internet, social media, and smartphones in daily life has a crucial role in addictions that can result in symptoms of depression.

Connecting the current results to the theory, RAT indicates that addicts have consistent preferences and make utility-maximizing decisions about whether or not to take an addictive product and the ability to consider the repercussions of present intake on future consumption. Undoubtedly, students were frequently confused as to whether or not to continue surfing due to

the presence of both positive and negative social media behavioral tendencies. This could be why most of them (67.2%) stated that they felt emotionally drained when using social media. Confusion, feeling emotionally exhausted, restlessness, and loss of interest in activities are considered psychological behavior problems associated with symptoms of depression and may adversely impact students' social lives (Andreassen et al., 2016).

Subsequently, when the presented study findings were amalgamated, statistical results summed up to 74.7% of the respondents who perceived to have experienced high levels of depression symptoms. Thus, the overall high perceived level of depression among the respondents was discovered. In explaining the probable cause of a higher depression outcome, it could be ideal to focus on the high number of online friend that students befriended. More importantly, it was stated in the present study that those with more friends were happier than those with fewer. Essentially, scholars (Steers et al., 2014; Andreassen et al., 2016) advocate that spending more time on Facebook attending to a massive number of friends, by implication, induces depression, only if a student is in the habit of making irrational social comparison with others. Therefore, it could be thought that unrealistic comparisons on social media may give students the impression that others are happier than they are which may trigger feelings of sadness. This psychological problem may lead to higher symptoms of depression (Baker & Algorta, 2016; Aydin, 2021). Taken together, the reults supports the recent research done by Kalkan and Bhat (2020) which revealed a higher level of depression symptoms.

Furthermore, the current research discovered a complicated relationship between excessive social media use and depression symptoms. The obtained information showed a weak negative correlation with the average collective score of -158**. The result implies that when there is a spike in social media addiction, students’ depression is threatened. In contrast, when the use of social media becomes minimal, students' depression improves. As such, the study revealed a possible inhibition of depression symptoms the more a student engages in social media and vice versa. This may mean that addiction to social media is associated with symptoms of depression. The negative correlation result obtained in this study is similar to previous studies conducted in different regions by Bilgin and Taş (2018) and Ibrahim (2019). These studies found a similar negative correlation between the variables, despite having been done in varying areas.

5.5.2 Students' social media addiction and Anxiety Symptoms

As previously indicated, this subcategory discusses data from objective five, which aims to investigate the potential impact of social media addiction on students' social lives, regading anxiety symptoms.

Several anxiety indicators were identified as psychological components perceived to possess the ability to influence students' social lives. As revealed by the study, 79.7% of respondents used to feel excited or alert about incoming notifications when online. Besides, the study also discovered that the majority of the respondents used to get worried about missing important things when offline. This circumstance could have been the reason respondents felt restlessness, increased blood pressure, and trembled upon seeing notifications when online. It was also surprising that students had distressing situations and emotions when they came across displeasing content, such as those with exaggerated, ambiguous, and demeaning content. The observed psychological characteristics are linked to anxiety symptoms and are thought to have a negative impact on student's life (Rosen et al., 2013). The findings uphold those of Muflih and Amestiasih's (2018) study, which found that students often experience anxiety, nervousness, deep sadness, fear, regret, and feelings of inadequacy, despair, and doubt when using social media excessively.

Another aspect of interest in this study was the perceived degree of anxiety. When all the analysis was amalgamated, the study discovered a high perceived addiction level, which comprised 65.1% of the anxiety symptoms among the students. The findings are concerning because, when anxiety becomes chronic and persistent, it can have a significant influence on a person's social and psychological well-being, often spreading to areas of life other than the source of concern (Rosen et al., 2013). Even a small percentage of it can have the capacity to disturb the social life of an individual student, as most of the time; students with anxiety tend to experience excitement and tense up moments or apprehension accompanied by physiological arousal (Azher, 2014). The situation is inconsonant with the survey conducted by Hou et al. (2019), who revealed similar evidence. Implications of the current findings could mean that the dangerous usage of social media may soon go out of their hands. Suppose the perceived impact of anxiety on students' social lives is left unnoticed or unattended. In that case, the impact of anxiety symptoms may pervade every aspect of a student's life (Calancie et al., 2017).

Furthermore, the Pearson correlation test showed that anxiety symptoms were negatively correlated with social media addiction (rho = -099*, P = 0.017). The present findings imply that the increase in the addictive levels of social media had the capacity to reduce students' levels of anxiety. In contrast, a decrease in social media use induced students' anxiety levels. For example, it was evident that the virtual of not receiving good content online as students were striving to meet their self-evaluation needs induced high levels of social media addiction. Subsequently, upon meeting their demand, developing low anxiety levels became possible. Low levels of social media usage, on the other hand, were associated with significant levels of worry, particularly during power outages or when occupied with other activities and unable to respond to incoming alerts. As a result, perceived anxiety levels appear to be associated with the extent to which students are addicted to social media. This assertion is supported by Blasco et al. (2020), who discovered an inverse relationship between social media addiction and anxiety.

5.5.3 Students' social media addiction and Stress

As a reminder, this subcategory addresses data from Objective five, which seeks to establish the potential impact of social media addiction on students' social lives in terms of stress symptoms.

Thus, in the context of stress, the present study discovered a high perceived level of stress symptoms (56.3%) among the students. This situation leaves more pertinent questions than answers regarding what made students develop such high levels of stress symptoms. In an attempt to respond to the question, it is vital, in the first instance, to refer to the activities students perpetually engage in as they use social media. Towbes and Cohen (1996:201) pointed out that among the stressors colleges experience are "academic performance, peer relations, family relations, romantic relationships, lifestyle, and health." In this regard, one of the perennial stressors discovered in the current study appears to be generated by peer relationships as one of the sources used to trigger stress symptoms in their online interactions.

Given the above, this study discovered that fear of being judged and untrustworthy comments experienced online in peer relationships was quite disturbing and had the capacity to induce nervous feelings that perpetuated stress (Xiang-Ling et al. 2019). Students used to feel stressed after receiving negative or intimidating messages and had become intolerant of anything that

kept them from getting online. Although judgment is a natural instinct, it could be argued that specific online comments cause nervousness and bad tempers, which in turn cause hurt feelings and social pain. In supporting this assertion, literature holds that "hurt feelings are a sub-type of social pain that is experienced specifically in handling perceptions of social injury" (Philip & Gerald, 2009:542). This may imply that negative, intimidating messages may cause tremendous social pain, a situation which may adversely impact students' social lives. As a result, it could be indicated that students need to be compassionate and learn to think deeply before disseminating knowingly harmful content online.

Furthermore, it was observed in this study that most of the students used to feel nervous and were intolerant of anything that kept them from getting online, probably for fear of missing out on essential things. Since social media is seen as highly captivating (Andreassen et al., 2016), it could be argued that any circumstance that may lead to being offline may generate difficulties in relaxing. As reported earlier in this study, college students use social media as their essential social association source. They are probably spurred to do so, to some extent, since social media utilization fulfills their fundamental belonging needs (Boursiera et al., 2020). Thus, it could be argued that increased exposure to missed events evokes severe stress symptoms (Fabris et al., 2020). This may also account for why high levels of stress symptoms were discovered in this study. Ideally students who are afraid of missing out on important information online are more likely to overuse social media. Subsequently, an inability to access online content leads them to stressful moments (Walrave et al., 2016). This view explains why most (52.3%) of the respondents used to find it hard to concentrate or think properly and over-react to situations for no apparent reason when some circumstances obstructed their being online. The findings uphold those of Muflih and Amestiasih's (2018) study, which found that students often experienced distress and feelings of inadequacy when online. However, the results of the current study appear troubling because they display distressing situations as students interact online.

Just like in other preceding variables, this study also revealed a negative correlation between social media addiction and the degree of stress (-160**). Although a weak negative correlation was evidenced, results show that when there were spikes in the level of social media addiction, students' stress levels were able to reduce, probably due to their capacity to attend to online

activities. On the other hand, when the reduction in social media addiction was apparent, students experienced substantial stress. The rational explanation for the induced stress may be that students were afraid of missing out on their essential scenes or activities online. This finding is consistent with previous research. For example, Ibrahim (2019) concluded in his study and found a significant negative association between Internet addiction and stress in people who used the Internet excessively. Based on current and previous research, it is clear that students who are addicted to social media are more likely to be stressed.

5.5.4 Students' social media addiction and sleep deprivation

As a reminder, this section addresses sleep deprivation data captured from objective five, which was set up to look into the possible impacts of students' social lives.

Hence, this study discovered an unsatisfactory or poor quality of sleep in more than half of the sampled population (63.1%). Most of the respondents acknowledged experiencing problems when using excessive social media at night. For example, when the analysis was made on the scores of sleep deprivation that were captured through varying indicators, a significantly high level that accounted for 63.1% of sleep deprivation symptoms was established among the students. The findings highlight a concerning issue, as bedtimes, in some situations, function as a resting period while one prepares for the next day's activities. As a result, it may be argued that a lack of adequate sleep, both in terms of quality and quantity, has a substantial impact on students' social lives. The findings are consistent with those of Levenson et al. (2017) and Alamer et al. (2020). According to the scholars, all of the students were active social media users during bedtime and had considerably poor sleep quality.

Supporting the preceding argument, this study established that overwhelmingly, respondents, representing 80.3%, usually spend less than 7 hours sleeping as they spend most of the night online. Surprisingly, some students were in the habit of sleeping less than five hours a night due to social media demands. However, when it comes to the number of hours students usually sleep, the situation appears to be problematic. For example, the American Academy of Sleep Medicine and Sleep recommends between eight and nine hours of sleep per night regularly for young adults (Hirshkowitz et al., 2015; Watson et al., 2015). Thus, with such a number of hours, it is

nearly impossible to have a satisfactory or good quality of sleep for the students. As a result, the findings of this study raise concerns about the quality and quantity of sleep that students get around bedtime, which are discussed in more detail in the following paragraphs.

In this regard, this study discovered several factors believed to have contributed to sleep deprivation. For example, disrupted sleep caused by fear of missing out on essential tasks had the capacity to put students in a stressful situation. Students were afraid of missing out on critical online activities, so they opted to stay online permanently. Also, premature awakening led students to abnormal patterns of the sleeping cycle, like sleep style. Students claimed they experienced difficulties going back to sleep once they woke up to check on the notifications. Thus, it could be argued that an obligation to attend to social media demands such as maintaining social interaction (Nowell & Thompson, 2020) was one of the significant activities that made students exceed their intended bedtime and wake up prematurely. Sadly, it was also discovered that some students were having problems with academic tasks. They used to doze off in class. The behavioral tendencies are more worrisome as this situation can potentially influence their academic performance negatively (Sandra & Ismail, 2016). This calls for urgent intervention on students' social media behavioural tendencies during bettime.

Another interesting outcome was the failure to obey their set restrictions or regulations. Students failed to adhere to their own rules of not visiting social media whenever they set a specific time offline. This situation may indicate that students could not control their social media gratification, particularly at night (McQuail, 2010). Based on U & GT, it could be argued that students' social media gratifications were based on the desire to attend to the notification. It is conceivable that students used to stay watchful for incoming social media alerts. They equally used to react to them during the night, increasing excitement but adding to the challenges of falling asleep (Alamer et al., 2020). In practice, interventions that encourage simple, practical steps like setting "do not disturb" periods through online media apps can be used to deal with the problem of getting alerts.

Subsequently, a correlation between sleep deprivation and the level of students' social media addiction was conducted, and it yielded complex information that requires more attention. The

results revealed that the level of social media addition was negatively correlated with sleep deprivation (rho = -0.113, p = 0.006). Although a weak negative correlation was evidenced, the results show that when the social media addiction level is high, the poor quality symptoms become apparent. Similarly, when addiction levels are low, students tend to experience high levels of good quality sleep symptoms. In that case, it is possible to assume that social media is a double-edged sword for students. Students use social media at night to satisfy positive gratification needs such as social gratification, leisure gratification, and instrument gratification. On the other hand, it is worth noting that a shorter duration of sleep at night increases sleep deprivation and may induce poor academic performance due to dozing off in class (Gulden & Kubra, 2018). In this regard, the present study's findings may support the discoveries that have been made recently by Yang et al. (2019) and Lin et al. (2019). These studies found a significant negative association between the degree of Internet addiction and sleep quality. In this regard, the concerns about sleep deprivation and sleep hours in the current and prior studies appear frightening and require immediate attention. Thus, it is important to have some good programs and strategies that help students become more aware of the vice.

In a nutshell, the current study results have demonstrated a relationship between social media addiction and the perceived psychological variables (depression, anxiety, stress, and sleep deprivation symptoms), believed to have an adverse impact on students' social lives exist. However, a conjoint analysis of the variables revealed a negative association between heavy social media usage and the perceived psychological variables. In short, the results indicate the possibility that the processes could be cyclical in nature, as they bring countless benefits to students and also carry risks. When users interact with two or more forms of social media, as many do, the risk of experiencing depression, stress, anxiety, and poor sleep quality increases. It is also suggested that social media can become beneficial for a good social life if it enhances effective collaboration among students. This dual relationship makes it difficult to establish appropriate connections between the two. However, the practical implication could be that the fluctuations in the students' social media use could be a coping tool to protect against social life challenges once they consider using it for beneficial purposes in a minimal way.

5.6 Summary

Social media is very prevalent throughout society in the present era, making it hard to avoid. As such, the study was undertaken to enhance students' understanding of social media usage, addiction, and the perceived impact it bears on their social lives. Efforts have been made to reveal, confirm, and extend knowledge of the present results on this topical issue.

Thus, the study discovered that Facebook and WhatsApp were the most popular social media platforms. The extent of social media usage based on duration, frequency, and time spent on social media, the number of social media friends students make, and their logging statuses have been discussed. Results in this area have shown that most study respondents indicated that they had been social media users for over two years. The behavioral aspect signifies that social media has embedded itself in the college culture. They have also become a part of the college student's daily life, as most respondents log on to social media platforms once or several times a day, for less than three hours and more than 30 minutes daily (30 > 3 hours) on visitations.

Furthermore, the chapter has attempted to explain the findings from objective two, which is intended to examine the amount of social media usage by demographic characteristics. In this vein, the study discovered that age and duration were the variables that produced differing results in terms of social media consumption. This was determined by a statistically significant difference (p =.036).These findings show that the quantity of experience gained from utilizing social media for a longer period of time is related to the students' age. In contrast, the chapter discovered that the degree of social media use was negligible. This was when the research took into account gender, year of study, and type of college, as well as the duration, frequency, and time spent per visit on social media, and found that all of the probability values obtained were significantly higher than 0.05, the conventional level of statistical significance. The results entail a significant incremental development in their social media usage, and it was similar across all the demographic factors.

The motive behind the platform's use is centered on leisure gratifications (kill idle time; entertainment), social gratifications (connect with others; facilitate interaction with friends; keep up with what others are doing), and instrumental gratifications (information seeking, learning

new things). These are the most effective uses and gratifications that motivate students to use social media. As such, the motives seem to point at the provision of pleasure as they interact with others. This reflects college students' strong incentives to pursue their inner and external gratifications, and it infers that online intrinsic and extrinsic motivators were at play.

The study further found a tremendous change in social media usage compared to the past. Most of the respondents rated themselves as higher users of social media in their current situation and less in the past. High perceived levels of social addiction, on the other hand, were detected among the students. Students' high social media use levels were triggered by unplanned social media appearances and fear of missing out on essential activities online. Also, their lack of awareness of the amount of time they used to spend online also induced the quest to be online constantly. Equally, they seem to demonstrate that social media usage among students is pointing in the direction of constant higher addiction usage, and it is heading towards out of control.

The study further found high symptoms of depression, anxiety, stress, and sleep deprivation in the social media lives of individual students, which were perceived to impact their social lives. For example, their quest for online appears to impact sleep quality. Students used to have difficulty sleeping due to insufficient sleep quantity as most students slept for less than 8 hours due to social media demands. However, a conjoint analysis of the variables (depression, anxiety, stress, sleep deprivation) revealed a weak negative correlation between media addiction and its impacts on the student's social life. The result implies that when there is a spike in the addiction to social media, the social life of students gets threatened by the psychological variables In contrast, when the use of social media becomes minimal, social life improves (inversely).

Given the findings, it is reasonable to presume that when students seek various gratifications through their favored platforms for an extended period online, they are often caught up in stressing circumstances of being addicted to social media. Such situations expose them to an assortment of social life complications. Thus, it is indispensable to have some fruitful programs and strategies to enhance students' knowledge and awareness of the use of social media. Along these lines, the current discoveries expand upon the existing literature globally and within the country regarding social media use and its perceived impacts on college students.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Overview

This chapter concludes the study on students' social media use, addiction levels, and perceived impact on their social lives in colleges of education on the Copperbelt, Zambia. The chapter is segmented into five sections. The first section presents the summary of the study, the second section provides the conclusion of the study, and the third section focuses on the implications of the study. The fourth section provides the recommendations, whereas the fifth section concentrates on future research endorsements.

6.2. Summary of the study

The study's thesis is that the extent to which students in Copperbelt colleges of education use social media and its impact on their social lives is unknown. Since social media has become an integral part of students' lives, they will continue to benefit from new social media as its technology grows more powerful. However, a concerning scenario has emerged. Students' access to social media has risen dramatically. Consequently, there are a host of negative perceptions fueling concerns about the potential impacts associated with social media that seem to compete with their online gratification demands. Despite the concern, literature that might refute or validate any claim about the potential risks of social media use appears to be scarce in colleges of education on the Copperbelt, thereby creating a gap. The situation necessitates more investigation for local evidence than simply relying on a few studies conducted in other provinces, particularly Lusaka, and those conducted outside of the country. As such, the following section provides the main study findings and conclusions.

6.2.1 The Main Research Findings and Conclusions

As a reminder, the focus of this thesis was to determine the extent to which students used social media, their levels of addiction, and their perceived impact on their social lives in colleges of education on the Copperbelt, Zambia. The study sought to have the following questions answered;

1. What is the extent to which students utilize social media?

2. Are there any significant differences in social media usage among students in terms of gender, age, college status and academic year?
3. For what purposes do students use social media?
4. What is the level of students' addiction to social media in colleges of education?
5. Are there any potential consequences of social media addiction among students?

The study has established that all the sampled students were social media users and were well exposed to various social media platforms, particularly Facebook and WhatsApp, the most commonly utilized for varying gratifications. The research further discovered that students had been using social media for more than two years, implying that they had vast experience in social media usage. Equally, a higher extent of social media use was also discovered. Students visit social media platforms once or several times a day. They also spent less than three hours and more than 30 minutes daily (30 > 3 hours) per social media visit. Subsequently, students used to be online continuously during day and night. The behavioral tendency suggests that college students spend a significant portion of their daily lives on social media because they offer instant gratification as guided by the uses and gratification theory. Due to the constant development of captive social media apps, it is anticipated that heavy and dangerously frequent usage within the coming few years will engulf students' social use. As a result, the situation is concerning, and immediate action appears to be required.

Furthermore, the study also assessed whether there are any significant differences in the extent to which students use social media (duration, frequent use, and time spent per social media visit) regarding the demographic variables of gender, age, college status, or academic year. Along this line, the study discovered that age and duration varied in the extent to which students utilized social media. This was determined by a statistically significant difference of p =.036.These findings entail that the experience gained from utilizing social media for a longer period of time is related to the students' age, whereas the duration variable was insignificant across all the remaining demographic variables, namely gender, college status, and academic year. In contrast, the study also discovered that the extent of social media use was insignificant across all demographic variables since all the probability values obtained were way above 0.05, the conventional level of statistical significance. The insignificant results are attributed to the fact

that all the respondents were social media users and were in the youthful group. However, the results give the impression that student social media usage may continue to rise with similar tendencies regardless of gender, the level of education one is pursuing or acquiring, or the type of college. The practical implications of the findings could be that remediation intervention tactics could be the same for all students because they use social media in the same way.

In addition, the study reveals extrinsic and intrinsic motivators regarding the students' motives in the use of social media. Through the power of their smartphones, students were extrinsically using social media to connect with others, seek online friends, and obtain advice from them. Subsequently, they express independent thoughts, exchange secrets, and circulate information to seek recognition and obtain gratification extrinsically. On the aspect of intrinsic motivators, students engage in social media solely as an area of information utility and entertainment, which elicits a great deal of intra-personal attention. Nonetheless, the general explanation raised in this study is that students use social media for leisure gratifications (killing idle time; entertainment), social gratifications (connecting with others; facilitating interaction with friends; keeping up with what others are doing), and instrumental gratifications (information seeking, learning new things). As such, the motives seem to point to the provision of pleasure, a tendency that bridges the recreation gap as they interact and communicate. The trends reflect students' strong incentives to pursue their inner and outer gratifications. Due to the higher usage of social media for pleasure, the implication could be that students are not yet proficient in taking advantage of social media values in academia, which needs particular attention from lecturers.

Subsequently, the study discovered that students' social media usage varied dramatically based on their past and current circumstances. The results entail a significant incremental development in their social media usage. Students' levels of social media use were very high and appeared to be triggered by: social media use experience; extended time spent on social media; social media satisfaction; and lack of awareness on online time appearance. Results seem to demonstrate that students' media usage is pointing toward continuous higher addiction usage. This is due to consistency in the development of captivity social media apps. Hence, the outcome is problematic based on the daily tasks students execute. Practically, the higher level of addiction must be controlled. Among the alarms that must be observed are the need to be connected for

more time, the increase in discomfort due to its lack of use, and the difficulty of disconnecting. It is critical to raise awareness among students and assist them in understanding that though social media engagement comes as a natural desire, they should be using it cautiously.

Finally, the study revealed potential consequences, such as depression, anxiety, stress, and sleep deprivation, perceived to impact their social lives. Precisely, on perceived depressive symptoms, the student expressed feelings of emotional weariness on offline occasions as a result of their heavy social media use. On the other hand, they become agitated when the need arises to discontinue their increased social media usage. Equally, they used to experience anxiousness and phobia of missing out on essential things online, circumstances that induced stressful moments, and inattentiveness in other social life activities. The study also depicts a gloomy picture of the quality of sleep. Some students sleep fewer hours than recommended during bedtime. The study also discovered a negative correlation between heavy social media usage and the psychological variables (depression, anxiety, stress & sleep deprivation) perceived to impact students' social lives. Findings suggest that when a spike in the online media's compulsion levels becomes evident, risky social life behavior overwhelms. The results have revealed a possible inhibiting of ill social life the more a student engages in social media. In contrast, when great social life wellness is achieved, a decrease in the elevated level of online media usage becomes apparent. Students are therefore caught up in a spiral web. These results taken together indicate the possibility that the relationship between social media addiction and its impact on a students' life could be cyclical in nature or bidirectional. Therefore, the study patterns seem to suggest that social media has both positive and negative effects. That is to say, if students can positively use social media, it can help them live a healthier social lifestyle.

6.2.3 Conclusion

This study is a revelation for the future of students' social media usage addictions and implications. It achieved the objectives and answered the research questions raised. In general, it has been discovered that social media usage has three distinct dimensions. The user's familiarity, time spent on social media, and social media satisfaction. It also reflects that the behavioral tendency in usage is quite alarming due to the perceived higher social media levels. This study has also found evidence suggesting that excessive social media use is associated with depression,

anxiety, stress, and sleep deprivation symptoms. The findings shed the severity of the issue. It is worrisome that if something positive is not done, social media will continue to cause havoc to college students as the world of social media science and technology improves. However, there is still room for addressing the reported impacts based on students' fluctuation in social media usage. Timely prevention and detection of social media addiction and its consequences should be given priority. All responsible college personnel are considered vital in addressing this social impact.

6.3 Implications of the study

The study's conclusion has a number of theoretical, practical and policy implications, which are discussed in the following section:

6.3.1 Theoretical implications

The social media landscape is constantly evolving, enabled by the quick update of functions embedded in various platforms, in particular Facebook and WhatsApp, which have been considered the most preferred platforms by students. Looking to the future, it is presumed that social media will continue to adapt to fit the new gratification needs of students and become even more prevalent, making accessibility widespread as it continues to evolve. Other social media applications or websites may also come into play. As a result, it is reasonable to anticipate that several advancements in social media applications will occur over the next ten years, enhancing various motivations for usage. Consequently, with the notable behaviour of constantly visiting social media several times a day, spending more time per visit, and higher levels of addiction coupled with the perceived negative impacts on the social lives of students, it is anticipated that the behavioral aspect may be more problematic in the near future. The usage may continue to pose various risks in terms of psychological, physical, and social aspects.

In this regard, theories combining concepts from social psychology and communication theory that indicate factors of social media addiction must be developed in the near future. Developing a specific theory revolving around social media use and social media addiction could be very helpful in continuing research on students, which is seen moving in parallel with the introduction of social media technology. This could entail combining concepts from U & GT, MDT, and RAT

with psychological, physiological, and sociological issues to create a valid social media addiction theory. Equally, social media addiction should be clearly defined in the next edition of the Diagnostic and Statistical Manual. This would place a greater emphasis on social media addiction and draw attention to its causes and treatment options. However, as of today, this study still contributes to the growing body of literature on social media usage by demonstrating that the U& GT, MDT, and RAT are still valid and relevant to students' use of social media and, as a result, should be given prominence.

6.3.2 Practical implications

With regard to practical implications, the study underpins the importance of looking at the future of social media practices to enhance appropriate usage for the betterment of students' daily lives. Colleges could potentially look to embrace social media in their institutions with caution. However, attempting to block access to social media or limiting access to platforms by blocking access via Wi-Fi on the other hand, maybe a futile task. The reason for this is that most students can still access social media platforms through smartphones that have Internet coverage, allowing them to continue using these platforms.

As social media grows and continues to become a part of students' daily lives, there is a need for awareness programs in colleges of education to educate students about social media's impact on their social lives. As a way to enlighten students on the impact of social media addiction, authorities such as college guidance and counseling personnel need to come up with a well-defined college-based awareness programs and implement them (Ndhlovu, 2015). This appears to be one way to reduce their chances of falling prey to its harmful impacts. This may also minimize time wasted on chatting and other irrelevant engagements that are not of significant importance in their present lives. In short, students should learn to control the amount of time spent on social media. Awareness should also cover symptoms arising from excessive usage of social media that may lead to the dangers of developing depression, stress, anxiety, and poor quality of sleep.

To reduce docile moments, particularly on weekends, college administrations may encourage students to participate in sports, theater, conferences, and other activities. Subsequently,

guidance and counseling professionals need to be on the lookout. It should be attended to any noticeable adverse psychological impacts that have been noticed with emergence. Collaboration with stakeholders such as psychologists, guidance and counseling lecturers, health personnel, and mobile providers would provide substantial expertise knowledge when conducting awareness programs. It will be necessary to implement such action plans as soon as possible, taking into consideration the dynamic of the social media landscape. This will also make the diagnosis and attending to such types of behavioral addictions easier and enhance the advocacy for rehabilitation and diagnosis centers to be established.

6.3.3 Policy implications

Policy surrounding social media usage is limited as it is still in its early stages and continuously evolving. In this regard, it is argued that Zambia does not have a comprehensive legal structure to deter adverse social media addictive behaviour among the youthful country's populous (Hanyama & Banda, 2017). The legal inadequacy may imply that many jurisdictions experience gaps and weaknesses in the current Zambian social media code of conduct guidelines and worse in colleges where social media policies are silent or not available. As such, the noticeable higher addictive levels and perceived impact of social media in colleges of education necessitates the need for specific policies in the area of social media usage.

Colleges should advocate for the enactment of college-based social media policies and regulations, a strategy that points to government effort through parliament. The government should develop a statutory regulatory framework that would tackle inappropriate content generation and transmission in the country. Perhaps, policies meant to censor what individuals post should be put in place. For instance, to reduce the stress of receiving intimidating messages for fear of negative evaluations, user-generated content should be thoroughly censored by ZICTA. Notably, a censorship policy would deter students from sending sensitive and mind-deteriorating information if they knew it would be censored. Censoring policies will help colleges come up with effective strategies to deter students from inappropriate excessive usage of social media as it will be backed by law. Ideally, creating a social media statutory regulatory framework has been seen as a powerful preventive strategy in some countries that have adopted the approach (Lopez-Fernandez, 2020). The system appears to be quite valuable even in Zambia

and beyond because of the escalating problematic usage of social media, particularly among the younger generation, college students not exceptional.

6.4 Recommendations of the study

Based on the findings and conclusion of the study, the following recommendations are made for further action and research:

1. Due to the students' heavy reliance on social media, colleges should provide interactive online ‘podiums’ like on Facebook and whatApp where students can demonstrate how they can positively use social media regarding time spent and frequency of visits.
2. Since demographics have comparable trends in social media use, college professionals are recommended to provide similar remediation intervention techniques to all college students. Students can participate in group or class discussions to share their perspectives.
3. To minimize excessive social media usage on pleasurable activities, colleges should be encouraging students to invest their social media time wisely and focus more on using it for their studies than on leisure gratifications.
4. College authorities should prioritize developing disseminating awareness programs through seminars, workshops, and conferences about the dangers of media addiction in order to minimise high level of social media addiction among the students,
5. As the results of the perceived harmful impacts of social media addiction, colleges should;
    a) activate the counseling units to educate students about the dangers of social media addiction in their social lives.
    b) incorporate topics relevant to social media use in some educational courses, including the benefits and drawbacks, so that students can make informed decisions and use social media responsibly.

6.5 Direction for future research

Exploration of any subject in education is endless and thorough. Such a statement should always shape the minds of education researchers and scholars. It is the contention that demonstrates that if there is nothing amiss with a part of education, at that point, researchers ought to be investigating prospects of improving it before something goes wrong. As the findings,

discussions, and limitations have indicated, there was already something wrong in the current study. There is a need to do extensive research in many other areas targeting social media usage, addiction, and the impact they exert on the lives of students in colleges of education. Social media addiction and its consequences are still relatively new topics or concepts that should stimulate a researcher's interest. Because of this, continued and further research is necessary. Therefore, the following areas are being suggested here as areas for further study:

1. A longitudinal inquiry can be conducted to ascertain whether a relationship exists between a student's addiction to social media and the impact on the student's social life.
2. Conduct a similar study using a qualitative method in order to explore the perception of students from an experiential perspective.
3. A similar study can be done targeting colleges such as Mansa, Chipata, Mongu, and Charles Lwanga to ascertain the extent to which students in peri-urban colleges of education.
4. Conduct research using a wide area targeting all colleges of education in Zambia.
5. Come up with a study on the impact of social media addiction on students' life using clinically accepted tools to establish causal relationships between the variable.

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APPENDIX 1: Modified Questionnaire

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

SCHOOL OF EDUCATION

Dear respondent

I am a PhD student carrying out an academic research study in which your assistance is very important. The purpose of this study is to explore students' social media use, addiction levels and its perceived impact on their social life in the Copperbelt colleges of education, Zambia. Please kindly respond as truthful as possible to the items in the instrument **by a tick (√) or an explanation in the spaces provided.** The information you will give will be treated with utmost confidence and will only be used for the sole purpose of this particular study.

Thanking you in advance for your assistance

Silomba Harry Jordan

Phone +26097999777/+26095559977/+260965542174.

Email: harrysilomba12@yahoo.com

Instructions

Do not write your name on this questionnaire.

Do not mention any name of other people in this questionnaire.

Read the questionnaire items carefully before you answer them.

SECTION A

(Demographic Data) College…….Sex: ……..Male ( ) Female ( )

Age: 19- 20 ( ), 21 – 25( ) 26 and above ( ) Year of study……..

SECTION B. (SMAS)

Most social media platform used (please **tick only one,** what best describe you)

Do you use any form of social media site?

Yes	No

1. Which social media platforms do you use most often?

Facebook	Twitter	Instagram	Snapchat	WhatsApp	LinkedIn	YouTube

Others, specify below

……

Extent use of social media (please **tick** what best describe you)

2. Roughly how long have you been using social media?

Less than 6 months	6 month – 1 year	1 year – 5 years	More than 5 years

3. How often do you visit social media platform? (**Tick** one box only).

Several times a day	Once a day	Twice a week	Once a week	Rarely

4. How much time do you spend on social media daily?

30 minutes- 1hour	2-3 hours	4 hours and above

Motive behind use of social media

5. Why do you visit a social-media platform? (tick as many as you like)

	Yes	No
To make new friends.		
To keep in touch with family and friends		
Reading latest news updates from friends		
To share photo/music/video/selfies		
To be like others (most friends use it)		
To play games		
Sending Rumors		

Level of students addicted to social media

6. Kindly indicate your experience on the usage of social media in last six month (please **tick** what best describe you)

	Very rarely	Rarely	Sometimes	Often	Very often
I spent a lot of time thinking about social media					
I have tried to cut down on the use of social media without success					
I become restless or troubled if i have been prohibited from using social media					
My use of the social network sometimes seems beyond my control.					
I don't become aware of the time I spend navigating social media platforms					
People complain that I use the social network too much.					
I often keep thinking about the social network well after I have logged off.					
I often Spend more time than planned on social media.					

7. Do you use social media platform during your sleeping time at night? (**Tick** one box only)

Very rarely	Rarely	Sometimes	Often	Very often

8. How do you consider the level of your social media use (**Tick** ONE box only)

Rarely use	Moderately use	Heavy use	Very heavy use

9. Using social media has become natural and part of my day to day activity

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

SECTION C

Adapted and modified DASS

Instruction:

You are presented with a statement about your relationship on student's social media usage, addiction and the possible consequences in colleges of education on the Copperbelt, Zambia. over the last six months. Read each pair of statements below about what comes closest to describing your feelings and beliefs about yourself. State your level of agreement or disagreement by indicating whether you: **Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), or Strongly Disagree (SD).** Please tick your answer of your choice.

Potential consequences of social media addiction

Psychological symptoms	**Measurable item**	**SA**	**A**	**U**	**D**	**SD**
	Potential Consequences					
	I felt depressed when I was not logged online					
	I felt upset when I had to cut down the amount of time I spent on social media					
Depression	I felt emotionally exhausted after social media use					
Depression Anxiety Stress Scale (DASS)	I felt that I wanted to give up on everything I do					
	I used to be happy if i have more social media friends and unhappy with less friends					
	Negative comments on social media left me helpless, confused, hopeless, worthless and unhappy					
	I felt that life was meaningless after use of social media					
	I felt worthless after using too much social media					
	I felt excited while using social media					
Anxiety	When on the social network, I often use to feel a kind of "rush" or emotional high.					
Depression Anxiety	I felt tense or restless when I knew I received a social					

Stress Scale (DASS)	media message but could not look at it immediately					
	I used to become worried about missing things when offline					
	I felt nervous not getting on social media					
	I felt like I was ready to explode when offline					
Stress Depression Anxiety Stress Scale (DASS)	I found it difficult to relax after social media use					
	I found it hard to think properly or concentrate					
	I was intolerant of anything that kept me from getting on with what I was doing					
	I felt upset for no reason and finding it difficult to relax					
	I felt not worth much as a person					
	tended to over-react to situations for no apparent reasons;					
	used to fear missing out essential things when not online					
	I felt stressed after receiving intimidating messages;					
Sleep Deprivation Pittsburgh Sleep Quality Index (PSQI) scale	I used to find it difficult to sleep shortly after using social media.					
	I could not sleep because of thinking about social media things that I have to get done.					
	The screen light kept on disturbing me at night after social media use and even if I have switched off					
	I used to experience headache and pains in the eyes					
	I used to doze in class because of visiting a good number of social media platforms during bed time					
	I start used to catch a sleep after midnight because of too much use of social media platform					

10. Do you ever stay up late or get up early to check out on your social media platform account? (**Tick** one box only)

Very rarely	Rarely	Sometimes	Often	Very often

11. How many hours on average do you normally sleep at night after visiting any social media platform?" (please tick what best describe you in the space provided below)

9 hours or more	Around 9 hours	Around 8 hours	Around 7 hours	Around 6 hours	Around 5 hours	Around 4 hours	Around 3 hours

Thanks very much for participating.

APPENDIX 2: Potential Impacts Analysis

DEPRESSION

Construct		Frequency	Percent	Cumulative Percent
Felt depressed when not logged in	Strongly Agree	295	50.9	50.9
	Agree	167	28.8	79.8
	Undecided	28	4.8	84.6
	Disagree	18	3.1	87.7
	Strongly Disagree	71	12.3	100.0
	Total	579	100.0	
Felt upset when I had to cut down amount of time	Strongly Agree	275	47.5	47.5
	Agree	147	25.4	72.9
	Undecided	32	5.5	78.4
	Disagree	66	11.4	89.8
	Strongly Disagree	59	10.2	100.0
	Total	579	100.0	
Felt emotionally exhausted after use	Strongly Agree	232	40.1	40.1
	Agree	157	27.1	67.2
	Undecided	59	10.2	77.4
	Disagree	58	10.0	87.4
	Strongly Disagree	73	12.6	100.0
	Total	579	100.0	
Felt as if I wanted to give up on everything	Strongly Agree	199	34.4	34.4
	Agree	114	19.7	54.1
	Undecided	51	8.8	62.9
	Disagree	73	12.6	75.5
	Strongly Disagree	142	24.5	100.0
	Total	579	100.0	
Used to be happy if they have more social media friends and unhappy with less	Strongly Agree	242	41.8	41.8
	Agree	171	29.5	71.3
	Undecided	28	4.8	76.2
	Disagree	65	11.2	87.4
	Strongly Disagree	73	12.6	100.0
	Total	579	100.0	

Comments left me helpless, confused and worthless	Strongly Agree	232	40.1	40.1
	Agree	194	33.5	73.6
	Undecided	30	5.2	78.8
	Disagree	28	4.8	83.6
	Strongly Disagree	95	16.4	100.0
	Total	579	100.0	
Felt that life was meaningless or worthless	Strongly Agree	214	37.0	37.0
	Agree	119	20.6	57.5
	Undecided	39	6.7	64.2
	Disagree	48	8.3	72.5
	Strongly Disagree	159	27.5	100.0
	Total	579	100.0	
Used to lose interest in other activities	Strongly Agree	238	41.1	41.1
	Agree	119	20.6	61.7
	Undecided	27	4.7	66.3
	Disagree	45	7.8	74.1
	Strongly Disagree	150	25.9	100.0
	Total	579	100.0	

ANXIETY

Construct		frequency	percent	cumulative percent
Felt excited or alert always for incoming notifications	Strongly Agree	207	35.8	35.8
	Agree	254	43.9	79.6
	Undecided	41	7.1	86.7
	Disagree	47	8.1	94.8
	Strongly Disagree	30	5.2	100.0
	Total	579	100.0	
Felt a kind of a rush or emotionally high	Strongly Agree	195	33.7	33.7
	Agree	164	28.3	62.0
	Undecided	50	8.6	70.6
	Disagree	82	14.2	84.8
	Strongly Disagree	88	15.2	100.0
	Total	579	100.0	
Felt restless or tensed up and ready to explode when offline	Strongly Agree	199	34.4	34.4
	Agree	161	27.8	62.2
	Undecided	50	8.6	70.8
	Disagree	91	15.7	86.5
	Strongly Disagree	78	13.5	100.0

	Total	579	100.0	
Worried about missing out important things when offline	Strongly Agree	195	33.7	33.7
	Agree	209	36.1	69.8
	Undecided	29	5.0	74.8
	Disagree	61	10.5	85.3
	Strongly Disagree	85	14.7	100.0
	Total	579	100.0	
Felt increased blood pressure, body trembling and rapid heartbeat whenever i saw a notification	Strongly Agree	176	30.4	30.4
	Agree	159	27.5	57.9
	Undecided	39	6.7	64.6
	Disagree	97	16.8	81.3
	Strongly Disagree	108	18.7	100.0
	Total	579	100.0	
Felt worries and emotional when i came across the displeasing contents	Strongly Agree	192	33.2	33.2
	Agree	118	20.4	53.5
	Undecided	28	4.8	58.4
	Disagree	109	18.8	77.2
	Strongly Disagree	132	22.8	100.0
	Total	579	100.0	

STRESS

Construct		Frequency	Percent	Cumulative Percent
Used to fear missing out essential things when not online	Strongly Agree	219	37.8	37.8
	Agree	137	23.7	61.5
	Undecided	33	5.7	67.2
	Disagree	105	18.1	85.3
	Strongly Disagree	85	14.7	100.0
	Total	579	100.0	
Used to find it hard to concentrate or think properly	Strongly Agree	161	27.8	27.8
	Agree	142	24.5	52.3
	Undecided	36	6.2	58.5
	Disagree	109	18.8	77.4
	Strongly Disagree	131	22.6	100.0
	Total	579	100.0	
Intolerant of anything that kept me from getting on	Strongly Agree	162	28.0	28.0
	Agree	137	23.7	51.6
	Undecided	51	8.8	60.4
	Disagree	115	19.9	80.3
	Strongly Disagree	114	19.7	100.0
	Total	579	100.0	
Felt upset for no reason and finding it difficult to relax	Strongly Agree	198	34.2	34.2
	Agree	125	21.6	55.8

	Undecided	59	10.2	66.0
	Disagree	96	16.6	82.6
	Strongly Disagree	101	17.4	100.0
	Total	579	100.0	
I tended to over-react to situations	Strongly Agree	164	28.3	28.3
	Agree	149	25.7	54.1
	Undecided	41	7.1	61.1
	Disagree	87	15.0	76.2
	Strongly Disagree	138	23.8	100.0
	Total	579	100.0	
Felt not worth much a person	Strongly Agree	171	29.5	29.5
	Agree	116	20.0	49.6
	Undecided	44	7.6	57.2
	Disagree	112	19.3	76.5
	Strongly Disagree	136	23.5	100.0
	Total	579	100.0	
Felt nervous and stressed out for being judged using untrustworthy comments	Strongly Agree	249	43.0	43.0
	Agree	124	21.4	64.4
	Undecided	15	2.6	67.0
	Disagree	92	15.9	82.9
	Strongly Disagree	99	17.1	100.0
	Total	579	100.0	
Felt stressed after receiving intimidating messages	Strongly Agree	291	50.3	50.3
	Agree	143	24.7	75.0
	Undecided	21	3.6	78.6
	Disagree	67	11.6	90.2
	Strongly Disagree	57	9.8	100.0
	Total	579	100.0	

Sleep deprivations

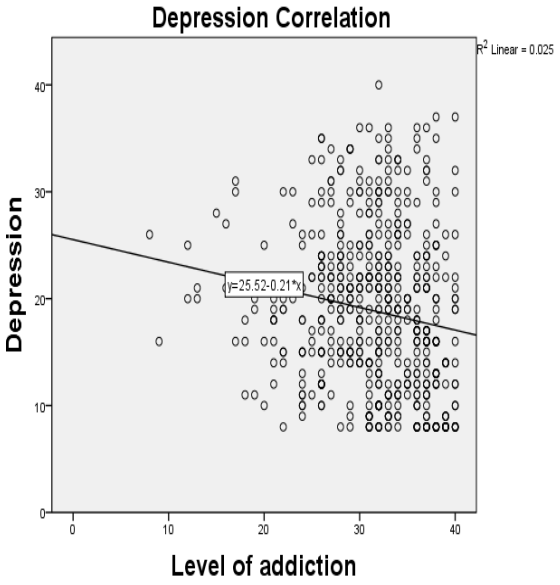
Construct		Frequency	Percent	Cumulative Percent
Found it difficult to sleep after social media use because of fear of missing out of important things online	Strongly Agree	245	42.3	42.3
	Agree	142	24.5	66.8
	Undecided	33	5.7	72.5
	Disagree	72	12.4	85.0
	Strongly Disagree	87	15.0	100.0
	Total	579	100.0	
Could not sleep because of thinking about social media for things not done	Strongly Agree	259	44.7	44.7
	Agree	116	20.0	64.8
	Undecided	26	4.5	69.3
	Disagree	74	12.8	82.0
	Strongly Disagree	104	18.0	100.0
	Total	579	100.0	

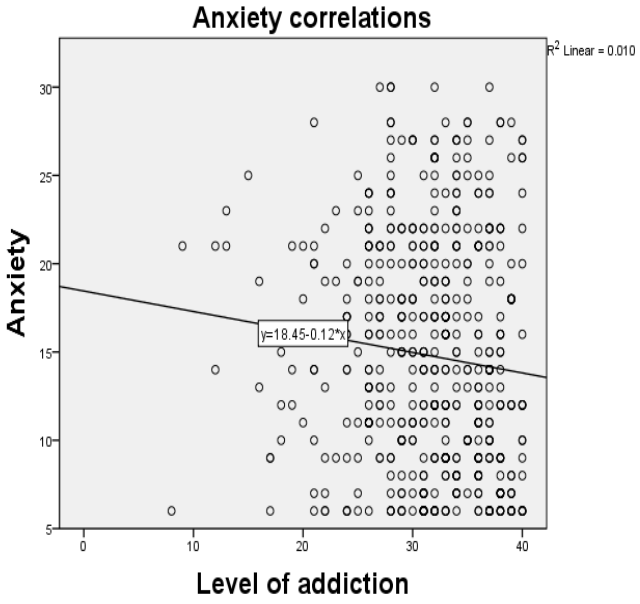
Screen light kept disturbing me at night even if i have switched off	Strongly Agree	248	42.8	42.8
	Agree	125	21.6	64.4
	Undecided	39	6.7	71.2
	Disagree	78	13.5	84.6
	Strongly Disagree	89	15.4	100.0
	Total	579	100.0	
Used to experience headache and pain in the eyes	Strongly Agree	235	40.6	40.6
	Agree	148	25.6	66.1
	Undecided	37	6.4	72.5
	Disagree	65	11.2	83.8
	Strongly Disagree	94	16.2	100.0
	Total	579	100.0	
Used to doze in class because of social media use at night	Strongly Agree	220	38.0	38.0
	Agree	152	26.3	64.2
	Undecided	41	7.1	71.3
	Disagree	64	11.1	82.4
	Strongly Disagree	102	17.6	100.0
	Total	579	100.0	
Catch a sleep after midnight because of too much social media use	Strongly Agree	227	39.2	39.2
	Agree	125	21.6	60.8
	Undecided	36	6.2	67.0
	Disagree	92	15.9	82.9
	Strongly Disagree	99	17.1	100.0
	Total	579	100.0	

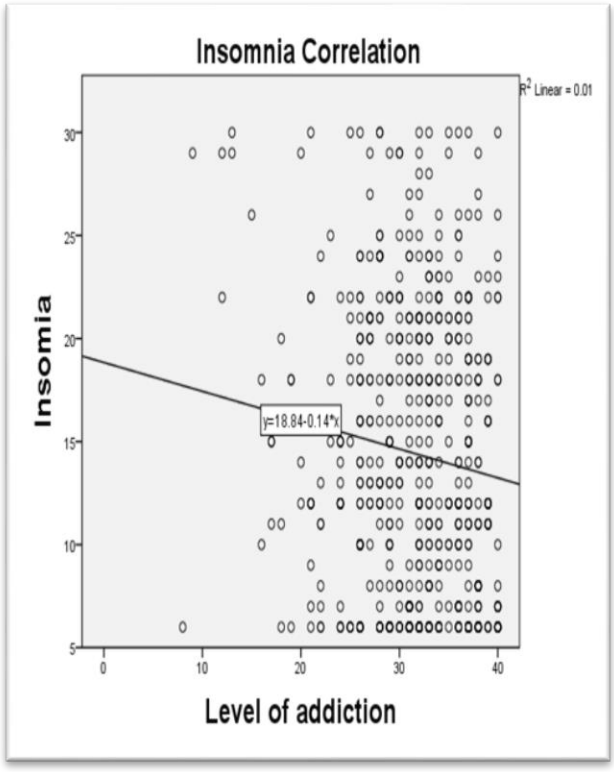
APPENDIX 3 SMA Correlations Matrix Analysis

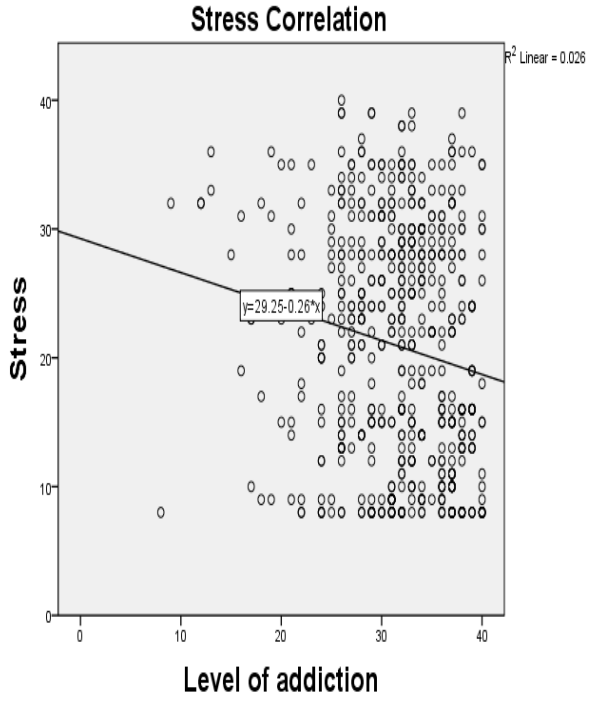
		Level of addiction	Depression	Narcissism	Anxiety	Stress	Insomnia	Loneliness
Level of addiction	Pearson Correlation	1	-.158**	-.233**	-.099*	-.160**	-.113**	-.125**
	Sig. (2-tailed)		.000	.000	.017	.000	.006	.003
	N	579	579	579	579	578	579	579
Depression	Pearson Correlation	-.158**	1	.539**	.430**	.448**	.367**	.354**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	579	579	579	579	578	579	579
Anxiety	Pearson Correlation	-.099*	.430**	.646**	1	.744**	.623**	.670**
	Sig. (2-tailed)	.017	.000	.000		.000	.000	.000
	N	579	579	579	579	578	579	579
Stress	Pearson Correlation	-.160**	.448**	.597**	.744**	1	.738**	.689**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	578	578	578	578	578	578	578
Insomnia	Pearson Correlation	-.113**	.367**	.509**	.623**	.738**	1	.719**
	Sig. (2-tailed)	.006	.000	.000	.000	.000		.000
	N	579	579	579	579	578	579	579
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

APPENDIX 4: Impacts Scatterplot Aanalysis









APPENDIX 5: Standardised SMAS

Annex-1. Social Media Addiction Scale (SMAS)

Item No	Items	Never	Rarely	Sometimes	Often	Always
1	I pretty much think about what's going on at social media recently.					
2	If there's anything I have to do first I check the social media.					
3	When I don't check the social media for a while, the thought of checking it occupies my mind.					
4	I think that my life would be boring, blank and tasteless without social media.					
5	When I'm not connected to the internet, I intensely think of checking the social media.					
6	I wonder of what's happening at social media.					
7	There are times that I spent more time at social media than I think.					
8	Each time I decide to cut my connection with social media, I tell myself "a few more minutes".					
9	I can't give up using social media for a long while.					
10	There are times that I use social media more than I plan.					
11	I can't understand how time passes while using social media.					
12	I allocate long periods to actions (games, chat, viewing the photographs etc) relevant to social media.					
13	I use social media in order to forget my personal problems.					
14	I spend time at social media at times when I feel alone.					
15	I prefer surfing at social media in order to be relieved from negative thoughts regarding my life.					
16	When I get bored of my problems, the best place that I shelter is social media.					
17	I forget about everything along the period that I use social media.					
18	There happens to be times when I try to stop using social media and become unsuccessful.					
19	I desire intensively to regulate my use of social media.					
20	I make useless efforts in order to leave the use of social media.					
21	I make useless efforts in order to regulate the use of social media.					
22	I try to decrease the time that I spent at social media, and I become unsuccessful.					
23	I use social media more although it negatively affects my profession/studies.					
24	I give less priority to my hobbies and leisure activities due to social media.					
25	There happens to be times that I neglect my spouse and family members due to social media.					
26	There happens times that I neglect my friends due to social media.					
27	Due to social media, I can not complete the activities that I start in a timely manner.					
28	In order to spend more time at social media, I neglect activities regarding school or work.					
29	I prefer spending time at social media rather than spending time with my friends.					
30	My school studies or works are interrupted due to the time I spent at social media.					
31	My productivity decreases due to social media.					
32	I prefer spending time at social media rather than going out with my friends.					
33	People criticize me for the time I spend at social media.					
34	I find myself trying to hide the time I spent on social media.					
35	There happens times that I forget eating due to social media.					
36	There happens times that I allocate less time to my personal care due to social media use.					
37	Alterations/disturbances occur in my sleeping order due to social media use.					
38	There happens times that I encounter physical problems (back, head, eye aches) due to social media use.					
39	The use of social media causes me to encounter problems in my relations with individuals who are important for me.					
40	The use of social media causes problems in my life.					
41	As the things I have to do increase, my desire to use social media increases at that rate.					

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APPENDIX 6: Standardised DASS

DEPRESSION ANXIETY STRESS SCALE (Lovibond & Lovibond, 1995).

DASS21

Name: Date:

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you **over the past week**. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree or a good part of time
3 Applied to me very much or most of the time

1 (s)	I found it hard to wind down	0	1	2	3
2 (a)	I was aware of dryness of my mouth	0	1	2	3
3 (d)	I couldn't seem to experience any positive feeling at all	0	1	2	3
4 (a)	I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5 (d)	I found it difficult to work up the initiative to do things	0	1	2	3
6 (s)	I tended to over-react to situations	0	1	2	3
7 (a)	I experienced trembling (e.g. in the hands)	0	1	2	3
8 (s)	I felt that I was using a lot of nervous energy	0	1	2	3
9 (a)	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10 (d)	I felt that I had nothing to look forward to	0	1	2	3
11 (s)	I found myself getting agitated	0	1	2	3
12 (s)	I found it difficult to relax	0	1	2	3
13 (d)	I felt down-hearted and blue	0	1	2	3
14 (s)	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15 (a)	I felt I was close to panic	0	1	2	3
16 (d)	I was unable to become enthusiastic about anything	0	1	2	3
17 (d)	I felt I wasn't worth much as a person	0	1	2	3
18 (s)	I felt that I was rather touchy	0	1	2	3
19 (a)	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0	1	2	3
20 (a)	I felt scared without any good reason	0	1	2	3
21 (d)	I felt that life was meaningless	0	1	2	3

DASS-21 Scoring Instructions

The DASS-21 should not be used to replace a face to face clinical interview. If you are experiencing significant emotional difficulties you should contact your GP for a referral to a qualified professional.

Depression, Anxiety and Stress Scale - 21 Items (DASS-21)

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress.

Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest / involvement, anhedonia and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset / agitated, irritable / over-reactive and impatient. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items.

The DASS-21 is based on a dimensional rather than a categorical conception of psychological disorder. The assumption on which the DASS-21 development was based (and which was confirmed by the research data) is that the differences between the depression, anxiety and the stress experienced by normal subjects and clinical populations are essentially differences of degree. The DASS-21 therefore has no direct implications for the allocation of patients to discrete diagnostic categories postulated in classificatory systems such as the DSM and ICD.

Recommended cut-off scores for conventional severity labels (normal, moderate, severe) are as follows:

NB Scores on the DASS-21 will need to be multiplied by 2 to calculate the final score.

	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

Lovibond, S.H. & Lovibond, P.F. (1995). Manual for the Depression Anxiety & Stress Scales. (2nd Ed.)Sydney: Psychology Foundation.

APPENDIX 7: Standardised PSQI

Subject's Initials_____ID#_____Date_____Time_____AM PM

PITTSBURGH SLEEP QUALITY INDEX

INSTRUCTIONS:
The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, what time have you usually gone to bed at night?

   BED TIME _____

2. During the past month, how long (in minutes) has it usually taken you to fall asleep each night?

   NUMBER OF MINUTES _____

3. During the past month, what time have you usually gotten up in the morning?

   GETTING UP TIME _____

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spent in bed.)

   HOURS OF SLEEP PER NIGHT _____

For each of the remaining questions, check the one best response. Please answer all questions.

5. During the past month, how often have you had trouble sleeping because you . . .

a) Cannot get to sleep within 30 minutes

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

b) Wake up in the middle of the night or early morning

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

c) Have to get up to use the bathroom

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

d) Cannot breathe comfortably

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

e) Cough or snore loudly

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

f) Feel too cold

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

g) Feel too hot

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

h) Had bad dreams

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

i) Have pain

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

j) Other reason(s), please describe_____

_____

How often during the past month have you had trouble sleeping because of this?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

6. During the past month, how would you rate your sleep quality overall?

Very good _____

Fairly good _____

Fairly bad _____

Very bad _____

7. During the past month, how often have you taken medicine to help you sleep (prescribed or "over the counter")?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

8. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

9. During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?

No problem at all _____

Only a very slight problem _____

Somewhat of a problem _____

A very big problem _____

10. Do you have a bed partner or room mate?

No bed partner or room mate _____

Partner/room mate in other room _____

Partner in same room, but not same bed _____

Partner in same bed _____

If you have a room mate or bed partner, ask him/her how often in the past month you have had . . .

a) Loud snoring

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

b) Long pauses between breaths while asleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

c) Legs twitching or jerking while you sleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

d) Episodes of disorientation or confusion during sleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

e) Other restlessness while you sleep; please describe_____

_____

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

Buysse DJ, Reynolds CF, Monk TH, Berman SR, Kupfer DJ: Psychiatry Research, 28:193-213, 1989.

APPENDIX 8 Ethical Clearance

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road | P.O. Box 32379 | Lusaka 10101 | **Tel:** +260-211-290 258/291 777
Fax: +260-1-290 258/253 952 | **Email:** director@drgs.unza.zm | **Website:** www.unza.zm

Approval of Study

4TH September 2019

REF. No. HSSREC: 2019 - APRIL – 014

The Principal Investigator
Mufulira College of Education
PO Box 40400
MUFULIRA

Dear Mr Silomba Harry Jordan

RE: "EFFECTS OF SOCIAL MEDIA ADDICTION ON THE MENTAL HEALTH OF STUDENTS IN THE COPPERBELT COLLEGES OF EDUCATION, ZAMBIA."

Reference is made to your submission. The University of Zambia Humanities and Social Sciences Research Ethics Committee **IRB** resolved to approve this study and your participation as Principal Investigator for a period of one year.

Review Type	Ordinary Review	Approval No. **HSSREC: 2019 APRIL – 014**
Approval and Expiry Date	Approval Date: **4Th Sept 2019**	Expiry Date: **3 Sept 2020**
Protocol Version and Date	Version-Nil	-
Information Sheet, Consent Forms and Dates	English.	To be provided

1

Consent form ID and Date	Version	To be provided
Recruitment Materials	Nil	Nil

There are specific conditions that will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

Conditions of Approval

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.
- All unanticipated or Serious Adverse Events (SAEs) must be reported to the IRB within 5 days.
- All protocol modifications must be IRB approved by an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review and approval. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by the IRB before they can be implemented.
- All protocol deviations must be reported to the IRB within 5 working days.
- All recruitment materials must be approved by the IRB prior to being used.
- Principal investigators are responsible for initiating Continuing Review proceedings. Documents must be received by the IRB at least 30 days before the expiry date. This is for the purpose of facilitating the review process. Any documents received less than 30 days before expiry will be labelled "late submissions" and will incur a penalty.
- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities And Social Sciences Research Ethics Committee IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.
- The University of Zambia Humanities And Social Sciences Research Ethics Committee IRB does not "stamp" approval letters, consent forms or study documents unless requested for in writing. This is because the approval

APPENDIX 9: Publications

Akakandelwa A. & **Silomba H.J.** (2021). The Impact Of Bedtime Compulsive Social Media Use On Students' Quality Of Sleep in the Copperbelt Colleges of Education, Zambia. EPRA *International Journal of Multidisciplinary Research* (IJMR) Volume: 7 | Issue: 3. Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2021:7.147 ||ISI Value: 1.188.

Silomba, H.J., Akakandelwa A., Kasonde S.N. (2021). Association between Social Media Addiction and Depression of Students in Colleges of Education on the Copperbelt Province, Zambia. *International Journal of Humanities Social Sciences and Education* Volume 8, Issue 2PP 157-165. https://doi.org/10.20431/2349-0381.0802015.

Silomba, H.J., Akakandelwa A., Kasonde S.N. (2021). Student's Perspectives on Prevention Strategies of Social Media Addiction Effects in Selected Colleges of Education on the Copperbelt Zambia. *Journal of Education and Practice* . ISSN 2222-1735. Vol.12, No.3. DOI: 10.7176/JEP/12-3-17.

Silomba, H. & Kasonde S.N. (2021). Variations in Social Media Use and Narcissism Conduct among Students in Colleges of Education on the Copperbelt, Zambia. *International Journal of Research and Innovation in Social Science (IJRISS)* |Volume V, Issue III. |ISSN 2454-6186 www.rsisinternational.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 7 | Issue: 3 | March 2021|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2021:7.147 ||ISI Value: 1.188

THE IMPACT OF BEDTIME COMPULSIVE SOCIAL MEDIA USE ON STUDENTS' QUALITY OF SLEEP IN THE COPPERBELT COLLEGES OF EDUCATION, ZAMBIA

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Article DOI: https://doi.org/10.36713/epra6502

ABSTRACT

This study investigated the relationship between bedtime Compulsive Social Media Use (CSMU) on students' sleep quality in the Copperbelt Colleges of Education, Zambia. Mixed method was utilised to solicit data from a sample of five hundred and seventy-nine (579) college students who were drawn from three (3) public and three (3) private colleges. Bergen Social Media Addiction Scale (BSMAS) and Pittsburgh Sleep Quality Index (PSQI) scale were utilised for data collection. Quantitative data were analysed using Statistical Package for the Social Science, whereas qualitative data was analysed using thematic analysis. Findings showed provision of pleasure as motive that compiled students to use social media during bedtime. Besides, it was established that students were spending less than 8 hours of sleep. However, the negative correlation between CSMU and sleep quality was evident. Therefore, the study recommends that college managements should conduct awareness programs to educate students on the negative effects of excessive usage of social media, particularly during bedtime.

KEY WORDS: *Bedtime; Social Media; College Students; Quality of Sleep; Copperbelt Zambia.*

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https://doi.org/10.20431/2349-0381.0802015
www.arcjournals.org

Association between Social Media Addiction and Depression of Students in Colleges of Education on the Copperbelt Province, Zambia

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***Corresponding Author:** *Harry Silomba Jordan, Mufulira College of Education, Zambia*

Abstract: *This study investigated the association between social media addiction and depression among students in colleges of education on Zambia's Copperbelt Province. The study utilised the survey method to solicit data from a sample of five hundred and seventy-nine (579) college students who were drawn from three (3) public and three (3) private colleges of education on the Copperbelt. Bergen Social Media Addiction Scale (BSMAS) and Patient-Reported Outcomes Measurement Information System (PROMIS) questionnaires were employed for data collection. Subsequently, Pearson correlation coefficient was employed to determine the relationship between social media addiction and depression. The findings indicated that social media addiction negatively correlates with depression and depression significantly predicts social media addiction.*

Keywords: *Social Media; College Students; Depression; Copperbelt Zambia.*

Journal of Education and Practice
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Student's Perspectives on Prevention Strategies of Social Media Addiction Effects in Selected Colleges of Education on the Copperbelt Zambia

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3. School of Education, University of Zambia, PO box 32379, Lusaka, Zambia

Abstract
Social Media Addiction (SMA) effects have been recognised as a significant psychological health problem in many countries. Yet, few investigations have been conducted on SMA effects intervention strategies globally and almost none in Zambia. This study sought to explore strategies that may lessen the adverse effects of SMA on student's psychological well-being in selected colleges of education on the Copperbelt province of Zambia. The study employed a qualitative case study research design involving 64 participants. Data were collected using the Focus Group Discussion (FGD), and interviews, whereas, the analysis was done with the help of a framework analysis approach to generate study themes. The results revealed that the student's addictive usage of social media adversely affected their psychological well-being. The study spelt out various intervention strategies centred on government, colleges and guidance and counselling interventions levels. Practically, it has been anticipated that the ideas discussed under each level may facilitate effective and tailored intervention programs to reduce SMA effects among the students.
DOI: 10.7176/JEP/12-3-17
Publication date: January 31st 2021

Variations in Social Media Use and Narcissism Conduct among Students in Colleges of Education on the Copperbelt, Zambia

Harry Jordan Silomba[1]*, Professor Sophie Kasonde Ng'andu[2]

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[2]*Senior lecturer, Department of Psychology Sociology and Special Education, University of Zambia*

Abstract: **This study investigated the variations in social media usage with regard to Narcissism conduct among students in colleges of education. The study utilised the survey method to solicit data from a sample of five hundred and seventy-nine (579) college students who were drawn from three (3) public and three (3) private colleges of education on the Copperbelt. Bergen Social Media Addiction Scale (BSMAS) and Narcissistic Personality Inventory (NPI 12) were utilised to determine student's social media use and narcissistic behaviour. The findings indicated that Facebook and WhatsApp were the commonly used platforms and that their adoption depended upon demographic variables of gender, age, year of study and college status.** ***The study also finds a high degree of narcissism in students that leads to troubling levels. Therefore, the study suggests early screening,*** **accompanied by effective counselling interventions to inculcate a sense of self-worth.**

most popular and commonly known include Facebook, WhatsApp, Twitter, Snapchat, Instagram, LinkedIn and YouTube, to mention but a few (Kircaburun et al., 2018). These platforms differ from each other in terms of their unique features. Global statistics rank Facebook as the most popular social media platform, followed by YouTube. The third one is Instagram, Twitter is sixth, Pinterest is eighth, and LinkedIn is number thirteen (Kallas, 2021). These platforms show variations in users' expectations, the high pace of creativity, complexity, and use (Kircaburun et al., 2018). Such a dynamic position means that researchers must keep up to date with the current growth of social media and it's usage regarding their psychological effects, Narcissism not exceptional.