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Analysing Differences in Social Media Use and Cyberbullying among Male and Female Students of University of Buea in Cameroon

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Abstract

Gender differences exist in social media use and cyberbullying among students of higher education in Cameroon. This research examines this disturbing and increasing phenomenon among male and female students at the University of Buea (UB). It uses the Diffusion of Innovations, Uses and Gratifications and Media Dependency theories. The quantitative approach and survey method are used for the research. Krejcie and Morgan's recommendation formed the basis on which a representative sample of 384 students was obtained from a population size of 33,000 students. The findings reveal that students at the University of Buea use social media to communicate with friends and loved ones (42% males; 41.1% females), for information acquisition (39.2% males; 36.8% females), and business purposes (25.3% males; 23.5% females). In addition, students use social media for academic purposes (42.3% females; 35.6% males) and to build relationships (27.6% females; 26.7% males). The findings further disclose that the precipitators of social media use vary between male and female students at the University. The students adopt social media because of its intriguing features (27.9% males; 23 females), trending nature (23.8% males; 18.4% females), cost-effectiveness (34.2% females; 28.4% males), resourcefulness (32.5% females; 32.5% males), and convenience (27.6% females; 27.3% males). Moreover, the results reveal that there is a significant mean difference in exposure to cyberbullying between male and female students at the University of Buea. Interestingly, male students experience social media harassment, privacy intrusion, uncontrolled arguments, hacking, and uncivil behaviour, more than female students but the effects of cyberbullying are uniform between the genders. This research, therefore, recommends that students should avoid sharing their social media login details and that their passwords should be a complex mixture of words, signs, and figures, to avoid online hacking and bullying. They should also

avoid sharing of unverified content on social media sites. Unverified content constitutes a form of social media bullying and tarnishes the reputation of others, which is punishable by Law No 2010-12 of 21 December relating to cybersecurity and cyber criminality in Cameroon.

Keywords

Gender Differences, Social Media Use, Cyberbullying, Students, University of Buea

1. Introduction

The advent of Information and Communication Technologies (ICTs) has intensified societal vices such as cyberbullying in the world. Cyberbullying is a form of harassment that occurs on social media platforms (Cassim, 2013). It takes place using instant messaging applications, online chat forums, and dating sites and it includes online harassment, name-calling, sharing of rumours, and blackmail. Cankaya & Tan (2011) enunciate that cyberbullying involves cyber aggression, unwarranted spreading of internet viruses, invading privacy through hacking into online accounts, spreading nude pictures, and using abusive language on people. These activities threaten the security of social media users across societies (Reddy, 2018 in (Chukwuere, Chukwuere, & Adom, 2021)).

Cyberbullying is visible in Cameroon. In January 2017, the government shut down the internet for 92 days (Ngange & Mokondo, 2019) due to frequent and severe online attacks on individuals, government officials, national symbols, and integrity, which jeopardised the peace and unity of Cameroon. Social media propagandists and terrorists excommunicated and declared some Cameroonians "wanted" while others were tagged as black legs (Ngange, Binebunwi, & Ndode, 2024).

Relationship scandals have also intensified cyberbullying in the nation. On June 8, 2022, in Buea, the capital city of the South West Region of Cameroon, four girls (Neris Ayuketang, Enjei Doris Kendra Assi, Sandra Sirri Ngomba and Bih Bernice Assi) molested their female friend Essou Marinette, whom they accused of dating one of their boyfriends. They stripped her naked, inserted pepper and sticks into her reproductive organs, took nude videos and pictures of her, and uploaded them on social media (Ngonmenyi, 2020). The Buea Court of First Instance sentenced the perpetrators to serve a six-month imprisonment term and pay three million FCFA to the victim, Essou Marinette, as damages.

The online media in Cameroon is also, abusively used for "revenge porn". "Revenge Porn" became a tool used by some Cameroonians to humiliate their former intimate partners (lovers) on social media. The concept emerged from Natalie Koah's book *"Revenge Porn"* published in February 2016. A few months after the book was published, a group of Cameroonian ladies based in Maryland, USA, released revenge porn on Facebook of another female Cameroonian

(Uchenna, 2016).

Defyhatenow Organisation reveals that some perpetrators of online cyberbullying create fake accounts to woo ladies, get their nude images and later blackmail them. For instance, on April 24, 2020, a Facebook user, Nakinti Besumbu Nofuru, raised an alert on a nude video linkage. In the post, she talks of a scammer trying to blackmail a young lady after getting her nude pictures. Akap (2016) reveals that the release of nudes is increasing in Cameroon despite the presence of a legal framework prescribing severe punishment for attacks on privacy using social media networks.

In 2002, the Cameroon National Agency for Information and Communication Technologies (ANTIC) was created following Presidential Decree No. 2002/092 of 8th April 2002. One of its missions is to mitigate cyberbullying and cybercrimes in Cameroon. The agency is placed under the supervision of the Ministry of Posts and Telecommunications and has varied functions ranging from the regulation, control, and monitoring of activities related to electronic security detection and provision of information on computer risks and cybercrime activities. It also carries out criminal investigations in collaboration with the Telecommunications Regulatory Board and judicial police officers (Borainea & Doris, 2019). ANTIC equally regulates the internet in Cameroon.

In November 2012, ANTIC organised a four-day seminar in Yaoundé to train 50 Cameroonians on the collection of electronic evidence and its deontology as well as techniques of preparing and drafting legal statements. The training provided an opportunity for the participants to acquire skills in investigating, detecting and prosecuting crimes committed with the use of information and communication technologies. The National Agency for Information and Communication Technologies revealed that over 90% of software and operating systems used in Cameroon are hacked including email addresses and social media accounts of businesses, individuals and government members resulting in lamentable losses for operators, individuals, businesses, and the state (Assongmo, 2016).

Cameroon signed a legal framework in 2010 to regulate cyberspace and punish cybercriminals (Borainea & Doris, 2019). Section 74 (1) of the Cyber Law punishes with imprisonment from one to two years and a fine from one to two million francs CFA anyone who uses any device to attach, record or transmit private or confidential electronic data without the consent of the author. Section 74 (4) of the Cyber Law punishes, with imprisonment from six months to two years or a fine from one to five million francs CFA or both, anyone who uses illegal means to collect the personal data of another to invade his or her privacy and undermine his or herself esteem. Section 78 (1) punishes, with imprisonment from six months to two years or a fine from five to ten million francs CFA or both, anyone who uses electronic communications or an information system to design, publish or propagate a piece of information without being able to attest its veracity or prove that the said piece of information was true.

In 2021, the Commission on Human Rights and Liberties of the Cameroon

Bar denounced the rising cases of cyberbullying in Cameroon and advocated for sanctions to be meted out to perpetrators. The commission expressed its dismay with the proliferation of videos depicting acts of torture, bullying and humiliation on social media (Mimi Mefo Info, 2021).

Attention is also given towards children in the fight against cyberbullying. ANTIC organised a three-day Child Online Protection Campaign in 2021 in six primary schools in the Mfoundi Division, Centre Region, to create safety awareness and ensure internet security. The pupils were groomed on dangers, notably: risks of sharing personal information such as name, photo, school, and home address to unknown persons met online; taking physical appointments with unknown persons met online; snapping and sharing intimate photos; cyberbullying; and risks inherent in downloading unknown applications. In the same vein, Geneva Internet Platform (2023) disclosed that Cameroonian Legislators are collaborating with Meta Platforms Inc. (Meta) specialists to develop methods of safeguarding individuals, especially children, from cyberbullying.

Voice of America (2011) reported that the rise of cyber criminality in Cameroon is attributed to the absence of severe punishment, the lavish lifestyles of most scammers and the slow response by the government to the problem. Also, Borainea & Doris (2019) explain that the inadequacy of the Law (the cyber law has not adequately deterred scammers from committing crimes because the sanctions are less severe); lack of expertise among investigating officers (the complex nature of cybercrimes requires expert knowledge in the recovery and interpretation of digital evidence); and lack of monitoring activities have led to the prevalence of cyber criminality in Cameroon.

Researchers have taken an interest in cyberbullying to examine its causes, forms, consequences, and mitigating strategies. However, they are divided on gender variation in the exposure to the phenomenon. While some researchers (Cassidy, Jackson, & Brown, 2009; Görzig & Ólafsson, 2013; Notar, Padgett, & Roden, 2013; Paglia-Boak, Adlaf, Hamilton, & Beitchman, 2012) state that girls are more likely to experience cyberbullying than boys, Olweus (2013) asserts the opposite that boys are more exposed to cyberbullying than girls. The existence of variances in previous findings on this issue evokes further reflections on whether female students are more exposed to cyberbullying than male students. More so, there is a paucity of scientific knowledge on the status quo in Cameroon; thus, limiting a fair comprehension of the subject. This necessitates that more research should be conducted on gender differences in social media use and cyberbullying to align, contrast or rewrite existing literature on cyberbullying in Cameroon.

The two objectives of this research, therefore, are to analyse gender differences in social media use patterns and exposure to cyberbullying; and then determine the consequences of cyberbullying on students at the University of Buea, Cameroon. To achieve these objectives, we pose the following research questions:

RQ1: To what extent is cost-effectiveness a determinant of social media use among students at the University of Buea?

RQ2: To what extent are students experiencing various forms of cyberbullying on social media?

RQ3: What is the difference in the consequences of cyberbullying on male and female students at the University of Buea?

The research hypotheses include:

H1: The cost-effective nature of social media has significantly influenced its adoption among students at the University of Buea.

H2: There is no significant mean difference in the exposure to cyberbullying between male and female students at the University of Buea.

H3: There is a significant mean difference in the consequences of cyberbullying between male and female students at the University of Buea.

2. Literature Review

2.1. Social Media

Kaplan & Haenlein (2010) see social media as a group of Internet-based applications built on the ideological and technological foundations of Web 2.0 that allow for the creation and exchange of user-generated content. Murugesan (2007) explains that Web 2.0 simplifies flexible Web design, creative reuse, and updates. It provides a rich, responsive user interface; eases collaborative content creation and modification; facilitates the creation of new applications by reusing and combining different applications on the web or by combining data and information from different sources; establishes social networks of people with common interests; supports collaboration; and helps gather collective intelligence.

Kietzmann, Hermkens, McCarthy, & Silvestre (2011) reveal that social media leans on mobile and Web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content. Boyd & Ellison (2007) also assert that social networking sites are web-based services. The services allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, as well as view and traverse their list of connections and those made by others within the system. Examples of social media networks are Facebook, WhatsApp, Twitter, and Instagram.

Since the inception of social media in 1996, Dean (2021) reveals that it "has managed to infiltrate half of the 7.7 billion people in the world. Social media platforms almost tripled their total user base in the last decade from 970 million people in 2010 to the number passing 4.48 billion users in July 2021" (p.1). This statistic shows an increase in social media in the world. The continental distribution reveals that from 2019 to 2020, Africa occupies the second position in social media growth statistics in the world.

2.2. Gender Differences in Social Media Use

Hossain & Prodhan (2020) examine gender differences in social media use and

its effect on academic performance among university students in Bangladesh. The researchers used 278 respondents of which 54.3% were males and 45.7% were females. The findings disclosed that more than 90% of the male and female students used social media. In terms of frequency, male students were more active on social media than female students. The results further disclosed that male students preferred Facebook while female students preferred YouTube.

The empirical investigation of the effects of gender on the adoption of social media carried out by Idemudia, Adeola, Raisinghani, Adeola, & Achebo (2017) extends the work of Hossain & Prodhan (2020). This is because Hossain & Prodhan (2020) failed to enumerate the reasons why the different genders will prefer to use a social media site over another(s). This lapse is covered in a previous study by Idemudia et al. (2017) which identified relative advantage, information quality, and risk of social media as factors which mostly motivate females to use some social media platforms than males. Also, the results show that males have a stronger perception of satisfaction and information quality when using social media compared to females.

Hossain & Prodhan (2020) and Bujala (2012) state that males are more likely to spend more time on social networks because of gender expectations and roles. While females are expected to take care of the private sphere, men are to take care of the public sphere. The public sphere incorporates social media sites. This means that men are likely to spend more time on social networks than women. However, Volkovich, Laniado, Kappler & Kantenbrunner (2014) note that there are more women on social media than men. They reveal that women outnumbered men for most social networking sites except for LinkedIn.

Mazman & Usluel (2011) investigated gender differences in using social networks. The study's group consisted of 870 Facebook users who responded to an online survey designed by the researchers. Findings showed that the purposes of social media use can be categorised into four: maintaining existing relationships, making new relationships, using for academic purposes, and following specific agendas. Significant differences were found between genders for all the purposes mentioned. While the difference in making new contacts was in favour of males, the differences in maintaining existing relationships, using social media for academic purposes, and following specific agendas on social media were in favour of females. Other studies on the gender differences in use patterns of social networking sites (SNS) highlighted that males are using social networking sites for networking, making new friends seeking out potential dates, and playing games; while females are using social media for relationship maintenance (Rousseau & Puttaraju, 2014) and posting public messages (Muscanell & Guadagno, 2012).

2.3. Cyberbullying

Cassim (2013) sees cyberbullying as a form of intimidation that occurs on media platforms. It is an extension of bullying. In the same vien, Johnson, Haralson, Batts, Brown, Collins, Buren-Travis, & Spencer (2016) state that cyberbullying is

an emerging form of bullying and virtually caused a tidal wave of despair. It is bullying through electronic media, and it is a growing problem. Notar, Padgett, & Roden (2013) state that the word cyberbullying did not even exist a decade ago, yet the problem has become a pervasive one today. Cyberbullying includes online harassment, name-calling, sharing of rumours, unjustified evictions from online forums, blackmail, cyber aggression, unwarranted spreading of internet viruses, invasion of privacy through hacking, spreading nude pictures, and using abusive language on people (Cankaya & Tan, 2011).

2.4. Gender Differences in Cyberbullying

Barlett & Coyne (2014) conducted a meta-analysis of sex differences in cyberbullying behaviour. Findings show that males are slightly more likely to cyberbully than females. However, age moderated the overall effect. While females are more likely to report cyberbullying during early to mid-adolescence age than males, males show higher levels of cyberbullying during later adolescence than females. In the same vein, Sun, Fan, & Du (2016) realise that more males were involved in cyberbullying perpetration behaviours than females. The researchers conducted a meta-analysis study to examine whether gender differences existed in cyberbullying perpetration. They used 39 articles that reported cyberbullying behaviours from both male and female respondents. The results reveal that males were more involved in cyberbullying perpetration behaviours than females. They observed that gender differences have been widely examined in both cyberbullying and traditional bullying research. In traditional bullying, gender patterns have been evident over time: boys were more likely to get involved in bullying than girls. Olweus (2013) states that the percentage of boys reporting experiences of indirect forms of bullying, like exclusion or spreading rumours, was equal to girls but boys were found more exposed to a direct form of bullying. Also, Adams as cited in Notar et al. (2013) found that adolescent girls (25.8%) were more likely to have experienced cyberbullying than boys (16%). However, girls are likely to spread rumours while boys are more likely to post hurtful pictures or videos. They also note that girls are more likely to become victims of cyberbullying, whereas boys are more inclined to engage in electronic bullying.

2.5. Effects of Cyberbullying on Students

Chukwuere, Chukwuere, & Adom (2021) investigate the psychosocial impact of cyberbullying on social media among students in Nigeria, Ghana, Zimbabwe, and Cameroon. The study adopted a quantitative research methodology in collecting data from 99 students across the selected African countries using a well-designed electronic questionnaire. The study found that cyberbullying on social media has psychosocial implications for students. The finding indicates that emotions run down because of cyberbullying.

Makori & Agufana (2020) also reveal that cyberbullying causes serious psychological harm to victims, like suicidal thoughts. This was the outcome of a

study that focused on understanding cyberbullying in educational institutions in Sub-Saharan Africa. The study adopted a case study approach and involved 123 respondents, with a response rate of 64%. Evidence from the study revealed that cyberbullying causes serious psychological harm to victims.

2.6. University of Buea

The University of Buea was created in 1992 following wide-ranging university reforms in Cameroon and went operational in May 1993. It was conceived in the English-speaking (Anglo-Saxon) tradition and seeks to foster the values of that system. It is one of the 11 State Universities and one of the two English-speaking Universities in Cameroon. It is situated in Buea, a historic academic metropolis that served as the capital of German Kamerun, British Southern Cameroons and currently the capital city of the South West Region. This historic city, at the foot of Mountain Cameroon—the highest mountain in West Africa and second highest in Africa—has a serene and conducive environment, beautiful scenery, strategic location, historical legacies, and legendary hospitality, which make it a favourable destination for studies in Cameroon. Currently, the University of Buea has over 33,000 students spread across 11 Establishments (eight faculties, two colleges, and one advanced school) on four campuses. It runs top-notch contemporary degree programmes from bachelor to doctorate levels. The three missions of the university are teaching, research, and outreach. It seeks to provide quality education in a conducive environment through the professionalization of training in a way that responds adequately to market demands and expectations. Its teaching and research programmes encourage critical, independent, and creative thinking. The academic staff hold advanced qualifications and international recognition. Due to its high standards, the University is highly solicited by thousands of students in Cameroon, other parts of Africa, and the world every year. The students are exposed to Information and Communication technologies, including the heavy use of social media platforms.

2.7. Theoretical Perspective

This study employed three communication theories: Diffusion of Innovations, Uses and Gratifications and Media Dependency theories.

Diffusion of Innovations Theory

Everett Rogers developed the theory in 1962. The theory explains how individuals adopt innovations over time. Rogers (2003: p. 12) defines diffusion as "the process in which an innovation is communicated through certain channels over time among the members of a social system". An innovation, on its part, is "an idea, practice or project that is perceived as new by an individual or other unit of adoption" (Rogers ibid, p. 12). Sahin (2006) explains that innovation may have been invented a long time ago, but if individuals perceive it as new, then it may still be an innovation for them.

Attributes of innovations that can increase the speed of adoption or reduce

it are relative advantage, compatibility, complexity, trialability, and observability. Besides these, there are five stages in the diffusion of an innovation. Sahin (2006) explains that the innovation-decision process starts with the knowledge stage. In this step, an individual learns about the existence of innovation and seeks information about it. The second stage is persuasion. The persuasion step occurs when the individual has a negative or positive attitude towards the innovation, but "the formation of a favourable or unfavourable attitude towards an innovation does not always lead directly or indirectly to an adoption or rejection" (Rogers, 2003: p. 176). The individual shapes his or her attitude after he or she knows about the innovation. In the decision stage, an individual chooses to adopt or reject the innovation. At the implementation stage, innovation is put into practice, and at the confirmation stage, the decision to accept or reject an innovation has already been made, but the individual looks for support for his or her decision.

Adopters are categorised into five groups. Rogers (2003: p. 22) defines the adopter categories as "the classifications of members of a social system on the basis of innovativeness". This classification includes innovators, early adopters, early majority, late majority, and laggards. Innovators are the first to adopt an innovation. To Rogers (ibid), innovators are willing to experience new ideas. Thus, they are prepared to cope with unprofitable and unsuccessful innovations and a certain level of uncertainty about the innovation. Compared to innovators, early adopters are more limited by the boundaries of the social system. Rogers (ibid) argues that since early adopters are more likely to hold leadership roles in the social system, other members come to them to get advice or information about the innovation.

The Early Majority is the third category of people to adopt an innovation. Rogers (2003) asserts further that although the early majority have good interaction with other members of the social system, they do not have the leadership role that early adopters have. The early majority adopts the innovation just before the other half of their peers adopt it. As Rogers stated, they are deliberate in adopting innovation, and they are neither the first nor the last to adopt it. Like the early majority, the late majority includes one-third of all members of the social system who wait until most of their peers adopt the innovation. Although they are sceptical about the innovation and its outcomes, economic necessity and peer pressure may lead them to adopt the innovation.

To reduce the uncertainty of the innovation, interpersonal networks of close peers should persuade the late majority to adopt it. Then, "the late majority feel that it is safe to adopt" (Rogers, 2003: p. 284). As Rogers (2003) stated, laggards have the conventional view, and they are more sceptical about innovations and change agents than the late majority. As the most localized group of the social system, their interpersonal networks mainly consist of other members of the social system from the same category. Moreover, they do not have a leadership role. Because of the limited resources and the lack of awareness and knowledge of innovations, they first want to make sure that innova-

tion works before they adopt it. Thus, laggards tend to decide after looking at whether the innovation was successfully adopted by other members of the social system in the past.

This theory applies to this research. In the University of Buea, the adoption of social media technology varies from one student to the other. Some students have not embraced social media technology due to the absence of smartphones to surf the internet and personal motives. Among those who have adopted it, the use of social media varies from one student to another. Some students are always active on social media meanwhile some are rarely on social media sites. While some students are active on WhatsApp, Facebook, Instagram and Twitter, others are not. This theory enabled the researchers to under this segmentation in the adoption category and guided us in selecting the right methodology to conduct the study.

Uses and Gratification (U & G) Theory

The U &G theory is credited to Jay Blumler and Elihu Katz in 1974. Uses and gratifications theory asserts that people use media to gratify specific wants and needs. It sees users as active agents who have control over their media consumption. Uses and gratifications characterise people as active and motivated in selecting the media they choose to consume.

Katz, Blumler, & Gurevitch (1974) in Chiang (2013) posited that the Uses and Gratification theory is rooted in traditional mass communication research on how a specific medium is sought and selected to provide needs. The main assumption of the uses and gratification theory is that the audience is actively seeking content that gives them the highest level of satisfaction (Windahl, Signitzer, & Olson, 2008). In general, the audience's degree of gratification depends on their needs and desires. The more a person feels that the real content fulfils his/her need, the more possible the selection of that content is.

McQuail (2010) identifies the reasons individuals utilise media outlets. The reasons constitute: to be informed and educated, to identify with characters of the situation in the media environment, to entertain, to enhance social interaction and to escape from the stresses of daily life. Egede & Chuks-Nwosu (2013) say the media serve specific purposes and it is left for the audiences to key into these and then locate which among the media activities is relevant to their use, and consequent gratification.

In this study, students in the University of Buea use different social media technologies for different purposes. The use of the technologies depends on the gratification sought.

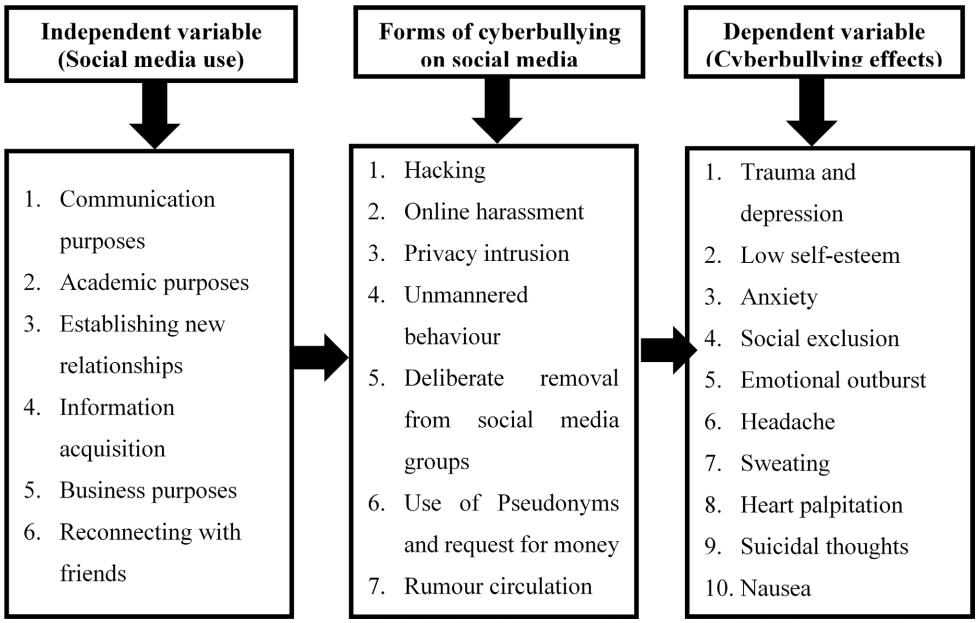
Media Dependency Theory

Propounded by Sandra Ball-Rokeach and Melvin DeFleur in 1976, the media dependency theory is combined with several perspectives like psycho analytics and social system theory, systematic and casual approach, and base elements from Uses and Gratifications theory with less focus on effects. The core assumption of the Media Dependency theory elucidates that the level of media depend-

ency is directly proportional to the limit of the medium to fulfil the necessities of the individual (news consumer) as much as could be expected (Ball-Rokeach & DeFleur, 1976). Individuals will be highly dependent on a medium that meets a greater proportion of their needs than a medium that meets a lesser proportion of their needs.

The relevance of social media has caused students in the University of Buea to rely on it for information acquisition, communication, entertainment, and business purposes. This dependency on digital technology has increased social media use as students spend a considerable number of their time browsing from one social media platform to another to meet their needs. The more students depend on social media, the more time they spend on social media, leading to an increase in the occurrence of cyberbullying.

2.8. Operational Model



Source: Ngange, Nkengafack, & Mesumbe, 2024.

The variables used in constructing this model are derived from existing literature on social media use and cyberbullying. The model reveals that male and female students use social media for varied purposes. The purposes include communicating with friends and loved ones, establishing new relationships, connecting with friends, acquiring information, and academic and business purposes. The use of social media for these purposes enables users to increase the time users spend on it. The frequent and intense use of social media exposes users to various forms of cyberbullying like hacking, online harassment, privacy intrusion, unmannered/uncivil behaviour, deliberate removal from social media groups, encounters with individuals who use pseudonyms to request money and rumour circulation. The exposure of social media users to these forms of cyberbullying may lead to trauma and depression, low self-esteem, anxiety, social exclusion,

emotional outbursts, headaches, heart palpitations, suicidal thoughts, and intense sweating. Social media use is the independent variable meanwhile the effects of cyberbullying are the dependent variable. The effects come because of users' exposure to social media sites like WhatsApp, Facebook, Instagram, Twitter, TikTok, Snapchat, LinkedIn, Telegram and YouTube.

3. Methodology

This study used the quantitative approach and survey method. The quantitative approach enabled the researchers to collect data that could be expressed in frequencies and percentages. This enabled the researchers to measure the frequency of students' exposure to various forms of cyberbullying on social media, the effects of cyberbullying on students, the number of hours spent on social media sites, the purpose of social media use, the factors precipitating social media use, and the frequency of using WhatsApp, Facebook, Instagram, Twitter, TikTok, Snapchat, LinkedIn, Telegram and YouTube.

Krejcie & Morgan (1970)'s table was used to select the required sample size. The sample of the study is 384 out of a population of 33,000 students at the University of Buea. The sample size is split between male and female students (192 male students and 192 female students). The equal representation of the sample enabled the researchers to conduct a gender comparison analysis on an equal basis. The researchers purposively selected students who were exposed to social media and were available and willing to participate in the study. The research instrument used for data collection was the questionnaire. The questionnaire was divided into four sections: factors precipitating social media use; frequency and purpose of social media use; exposure to forms of cyberbullying; and demographics. The data were collected from February 9, 2023, to April 22, 2023.

Out of a sample size of 384 students, 348 completed the survey, giving a 90.6% response rate. The high response rate can be explained with good reasons, including the fact that two of the researchers are also students and one is a lecturer in the same University, who master the environment and created a good rapport with the respondents. Also, the topic is relevant to the students and data collection was done for over two months during a period when the students were free from examination pressures. The data were coded, entered in the Statistical Package for Social Scientists (SPSS) version 21, cleaned, and analysed. Both descriptive and inferential tests, such as the One-Sample T-test and Independent Samples T-test, were done. Cross-tabulations were also conducted to examine social media use, exposure to cyberbullying and consequences of cyberbullying between male and female students. The One-Sample T-Test was used for hypothesis one and the Independent Samples T-Test was used for hypothesis two and three. The reliability statistic was 0.94, which signifies a high level of internal consistency. Validity was ensured through face validity, content validity and construct validity. Ethical considerations like voluntary participation, anonymity, confidentiality, and informed consent were ensured.

4. Findings

4.1. Demographic Characteristics of Sample

Table 1 below shows the demographic characteristics of the respondents in

Table 1. Demographic characteristics of sample.

Demographic variables	Frequency	Percentage (%)
Gender		
Male	174	50
Female	174	50
Total	348	100
Age		
18 to 20 years	136	39.1
21 to 23 years	133	38.2
24 to 26 years	52	14.9
27 to 29 years	20	5.7
30 to 32 years	6	1.7
No response	1	0.3
Total	348	100
Marital status		
Singles	336	96.6
Married	7	2.0
Cohabit	3	0.9
Divorced	1	0.3
No response	1	0.3
Total	348	100
Level of education		
Undergraduates	295	84.8
Master students	34	9.8
Doctoral degree	4	1.1
No response	15	4.3
Total	348	100
Religion		
Christianity	337	96.8
Traditionalist	7	2.0
Islam	3	0.9
No response	1	0.3
Total	348	100

Source: Ngange, Nkengafack, & Mesumbe, 2024.

terms of their gender (male or female), age, marital status, level of education and their religion. A total of 348 students at the University of Buea effectively completed the survey. Of this number, 174 (50%) are males and 174 (50%) females. Age-wise, 39.1% (136) are between 18 and 20 years, 38.2% (133) are between 21 and 23 years, 14.9% (52) are between 24 and 26 years, 5.7% (20) are between 27 and 29 years, 1.7% (6) are between 30 and 32 years and 0.3% (1) did not reveal the age. Equally, the findings revealed that 84.8% (295) are undergraduate students, 9.8% (34) are pursuing a master's degree, and 1.1% (4) are doctoral students. The result showed that 4.3% (15) of the students did not disclose their level of education. In addition, 96.8% (337) are Christians, 2% (7) are African Traditionalists, and 0.9% (3) are Muslims. The results are valid because they represent the true overall picture of the demographic distribution in the University of Buea.

4.2. Frequency of Social Media Use among University of Buea Students

Table 2 analyses the frequency with which the respondents use eight social media platforms on a weekly basis. The findings reveal that the students use mostly WhatsApp (85.6%) followed by Facebook (30.7%), YouTube (26.7%), Telegram (19.3%), Snapchat (19%), TikTok (18.1%), Instagram (15.8%), Twitter (11.2%) and LinkedIn (10.9%).

4.3. Hours Spent on Social Media Daily

Table 3 shows the analysis of the number of hours spent by respondents on eight social media platforms daily. The results reveal that most of the students spend a greater proportion of their time on WhatsApp followed by Facebook and YouTube.

Table 2. Frequency of social media use among students on weekly basis.

Social media sites	Measurement of Frequency					Total
	Always (7 days)	Often (5 - 6 days)	Sometimes (3 - 4 days)	Rarely (1 - 2 days)	Never (0 day)	
WhatsApp	85.6%(298)	9.5% (33)	1.7% (6)	2% (7)	1.1% (4)	100% (348)
Facebook	30.7% (107)	15.8% (55)	18.7% (65)	19.5% (68)	15.2% (53)	100% (348)
YouTube	26.7% (93)	26.4% (92)	20.1% (70)	18.4% (64)	8.3% (29)	100% (348)
Telegram	19.3% (67)	14.1% (49)	16.4% (57)	25.9% (90)	24.4% (85)	100% (348)
Snapchat	19% (66)	11.8% (41)	18.7% (65)	19.5% (68)	31% (108)	100% (348)
TikTok	18.1% (63)	14.1% (49)	17.5% (61)	19.5% (68)	30.7% (107)	100% (348)
Instagram	15.8% (55)	10.1% (35)	17.8% (62)	21.3% (74)	35.1% (122)	100% (348)
Twitter	11.2% (39)	8% (28)	13.2% (46)	17.5% (61)	50% (174)	100% (348)
LinkedIn	10.9% (38)	10.6% (37)	13.5% (47)	11.8% (41)	53.2% (185)	100% (348)

Source: Ngange, Nkengafack, & Mesumbe, 2024.

4.4. Factors Influencing Social Media Use among Students in the University of Buea

The results of Table 4 below, on gender differences in the factors influencing social media use, reveal that female students (36.5%) mostly adopted social media because of its resourceful content than male students (32.5%). Also, female students (34.2%) have mostly adopted social media because of its cost-effective nature than male students (28.4%). This implies that the economic nature of social media has increased its adoption among female students in the University of Buea than male students. Equally, the findings show that female students (27.6%) have mostly adopted social media because of its convenient nature more

Table 3. Hours spent on social media daily.

Social media	Measurement of daily hours spend on social media					Total
	21 hours and above	16 to 20 hours	11 to 15 hours	Less than 10 hours	0 hour	
WhatsApp	31.3% (109)	22.1% (77)	20.4% (71)	26.1% (91)	0% (0)	100% (348)
Facebook	11.2% (39)	14.1% (49)	14.1% (49)	40.2% (140)	20.4% (71)	100% (348)
YouTube	10.3% (36)	13.5% (47)	17.2% (60)	43.7% (152)	15.2% (53)	100% (348)
TikTok	7.8% (27)	11.8% (41)	12.6% (44)	30.2% (105)	37.6% (131)	100% (348)
Twitter	7.4% (26)	4.9% (17)	8.9% (31)	23.9% (83)	54.9% (191)	100% (348)
Telegram	6.9% (24)	5.6% (30)	10.3% (36)	39.7% (138)	34.5% (120)	100% (348)
Snapchat	6.6% (23)	10.6% (37)	9.8% (34)	34.2% (119)	38.8% (135)	100% (348)
Instagram	6% (23)	11.2% (39)	9.5% (33)	28.7% (100)	44% (153)	100% (348)
LinkedIn	5.5% (19)	6.9% (24)	7.8% (27)	25% (87)	54.9% (191)	100% (348)

Source: Ngange, Nkengafack, & Mesumbe, 2024.

Table 4. Gender differences on the factors influencing social media use.

Variables	Male					Female				
	S.A	A	N	D	S.D	S.A	A	N	D	S.D
Resourceful	(23%) 80	(9.5%) 33	(11.8%) 41	(3.4%) 12	(2.3%) 8	(26.4%) 92	(10.1%) 35	(9.2%) 32	(2.6%) 9	(1.7%) 6
Cost-effective	(22.7%) 79	(5.7%) 20	(13.8%) 48	(3.4%) 12	(4.3%) 15	(24.7%) 86	(9.5%) 33	(7.8%) 27	(5.2%) 18	(2.9%) 10
Convenient	(14.7%) 51	(12.6%) 44	(11.5%) 40	(6.6%) 23	(4.6%) 16	(15.2%) 53	(12.4%) 43	(13.2% 46	(6.3%) 22	(2.9%) 10
Intriguing features	(13.8%) 48	(14.1%) 49	(10.9%) 38	(7.2%) 25	(4.0%) 14	(13.2%) 46	9.8% (34)	(12.1% 42	(9.2%) 32	(5.7%) 20
Societal trend	(12.9%) 45	(10.9%) 38	(10.3%) 36	(8.6%) 30	(7.2%) 25	(10.9%) 38	(7.5%) 26	(11.8% 41	(12.4% 43	(7.5%) 26

Source: Ngange, Nkengafack, & Mesumbe, 2024. SA = Strongly Agree, A = Agree, N-Neutral, D = Disagree and SD = Strongly disagree.

than male students (27.3%). Furthermore, male students (27.9%) have mostly adopted social media because of its intriguing features more than female students (23%). In addition, the results reveal that male students (23.8%) have mostly adopted social media because of its trending nature when compared to female students (18.4%) of the University.

4.5. (H1) Cost-Effectiveness and Social Media Adoption Patterns

Table 5 presents the inferential statistics of cost effectiveness as a determinant of social media adoption among male and female students of the University of Buea. This was used to test hypothesis one. A One-Sample T-Test was performed to determine whether the cost-effective nature of social media has precipitated its adoption among students at the University of Buea. The result of the test, t (df = 347) = −5.4, $P < 0.05$ ($P = 0.001$), revealed that the cost-effective nature of social media has precipitated its adoption among students. The result was statistically significant at a 0.05 level with a 95% confidence interval. Also, the mean of the sample (2.1) was significantly lower than the probable test mean of 2.5 (average agreement response). This result supports the descriptive analysis, which revealed that 62.6% (47.4% strongly agreed and 15.2% agreed) of the students affirmed that the cost-effective nature of social media has made them adopt the technology as opposed to 15.8% (8.6% disagreed and 7.2% strongly disagreed) who refuted the statement and 21.6% were neutral. Thus, hypothesis one is confirmed.

4.6. Gender Differences in Social Media Use among Students

Gender differences in social media use in six variables are presented on Table 6. The findings reveal that male students (42%) slightly use social media to communicate with friends and loved ones more than females (41.5%). Female students on their part, use social media more (42.3%) for academic purposes than male students (35.6%). Equally, male students (39.2%) use social media for information and news acquisition more than female students (36.8%) while female students (27.6%) use social media slightly more to build relationships than male students (26.7%). Furthermore, female students (23.9%) use of social media to search for jobs is almost equal to that of male students (23.5%) while male students

Table 5. Cost effectiveness as a determinant of social media adoption among students.

One-Sample Statistics		One-Sample Test (CI: 95%)	
N	348	Df	347
Mean	2.1	T	−5.4
Std. Deviation	1.3	Sig. (2-tailed)	0.001
		Test Value	2.5
		Mean Difference	−0.4

Source: Ngange, Nkengafack, & Mesumbe, 2024.

Table 6. Gender differences in social media use.

Variables	Male					Female				
	S.A	A	N	D	S.D	S.A	A	N	D	S.D
Communication with friends	(34.8%) 121	(7.2%) 25	(6.9%) 24	(0.9%) 3	(0.3%) 1	(35.6%) 124	(5.5%) 19	(7.5%) 26	(1.4%) 5	(0%) 0
Academic purposes	(24.4%) 85	11.2% 39	(7.8%) 27	(4.9%) 17	(1.7% 6	(29.9%) 104	(12.4%) 43	(5.7%) 20	(2%) 7	(0%) 0
Information acquisition	(25.6%) 89	(12.6%) 44	(8.6%) 30	(2.0%) 7	(1.1%) 4	(25%) 87	(11.8%) 41	(6.6%) 23	(5.7%) 20	(0.9%) 3
To build relationships	(13.5%) 47	(13.2%) 46	(13.8% 48	(7.8%) 27	(1.7%) 5	(14.7%) 51	(12.9%) 45	(9.5%) 33	(8.9%) 31	(4%) 14
To search for jobs	(15.2%) 53	(8.3%) 29	(12.9% 45	(9.8%) 34	(3.7%) 13	(12.4%) 43	(11.5%) 40	11.8%) 41	10.6%) 37	(3.7%) 13
Business purposes	(14.7%) 51	(10.6%) 37	(11.2% 39	(11.2% 39	(2.3%) (8)	(14.9%) 52	(8.6%) 30	(9.8%) 34	(10.6% 37	(6%) 21

Source: Ngange, Nkengafack, & Mesumbe, 2024.

(25.3%) mostly use social media for business purposes than female students (23.5%).

4.7. Exposure to Various Forms of Cyberbullying on Social Media

On Table 7, male and female differences in social media use and exposure to cyberbullying are presented. The findings indicate that male students (24%) mostly experience impersonation on social media sites more than female students (15.8%); male students (19.2%) mostly witness social media harassment than female students (14%); male students (14%) mostly receive abusive messages on social media sites than female students (8.3%); male students (15.8%) mostly come across individuals with uncivil behaviour on social media more than female students (8%); male students (14.4%) mostly experience hacking on social media more than female students (7.8%); male students (13.5%) are mostly victims of unjustified blocking on social media sites than female students (7.2%); male students (12.4%) are mostly victims of deliberate eviction from social media groups than female students (9.7%); male students (12.1%) have mostly experienced privacy violations on social media sites than female students (8.4%) and male students (13.8%) mostly experience uncontrolled arguments on social media sites more than female students (6.4%).

4.8. (H2): There Is No Significant Mean Difference in the Exposure to Cyberbullying between Male and Female Students in the University of Buea

An Independent Samples T-Test was conducted to test the hypothesis.

The testing result of hypothesis two is presented on Table 8, with the Mean difference in the manifestation of cyberbullying between male and female students

Table 7. Gender differences in social media and exposure to cyberbullying.

Variables	Male					Female				
	A	O	S	R	N	A	O	S	R	N
Impersonating others and asking me for money	(10.3%) 36	(10.1%) 35	(11.8%) 41	(11.5%) 40	(6.3%) 22	(6.3%) 22	(9.5%) 33	(11.8% 41	(13.8%) 48	(8.6%) 30
People using fake names to hunt me	(8.3%) 29	(10.9%) 38	(6%) 21	(11.8%) 41	(12.9%) 45	(6%) 21	(8%) 28	(7.5%) 26	(10.6%) 37	(17.8%) 62
Receiving abusive messages	(10.3%) 36	(3.7%) 13	(8%) 28	(12.6%) 44	(15.2%) 53	(4%) 14	(4.3%) 15	(7.2%) 25	(14.4%) 50	(20.1%) 70
Suspicious online behaviour with no harm	(8%) 28	(7.8%) 27	(8.3%) 29	(12.1%) 42	(13.8%) 48	(4.6%) 16	(3.4%) 12	(6.9%) 24	(16.4%) 57	(18.7%) 65
Someone hacking my online account	(7.8%) 27	(6.6%) 23	(7.2%) 25	(11.2%) 39	(17.2%) 60	(4.6%) 16	(3.2%) 11	(7.8%) 27	(9.8%) 34	(24.7%) 86
Unreasonably being blocked	(8.3%) 29	(5.2%) 18	(7.8%) 27	(12.9%) 45	(15.8%) 55	(3.2%) 11	(4%) 14	(6.6%) 23	(13.8%) 48	(22.4%) 78
Eviction from an online group	(6.9%) 24	(5.5%) 19	(8%) 28	(11.8%) 41	(17.8%) 62	(4%) 14	(5.7%) 20	(5.7%) 20	(10.3%) 36	(24.1%) 84
Unauthorised sharing my secrets/picture	(4.9%) 17	(7.2%) 25	(5.5%) 19	(10.9%) 38	(21.6%) 75	(3.2%) 11	(5.2%) 18	(4.3%) 15	(8.3%) 29	(29%) 101
Uncontrolled arguments	(4.6%) 16	(9.2%) 32	(7.5%) 26	(17.2%) 60	(15.2%) 53	(3.2%) 11	(3.2%) 11	(7.8%) 27	(21.8%) 76	(20.1%) 70

Source: Ngange, Nkengafack, & Mesumbe, 2024. A = Always, O = Often, S = Sometimes, R = Rarely and N = Never.

Table 8. Mean difference in the manifestation of cyberbullying between male and female students of the University of Buea.

	Gender	N	Mean	Std. Dev.	Std. Error Mean
Manifestation of cyberbullying on social media sites	Male	174	30.4	10.1	0.76678
	Female	174	34.1	8.6	0.65255

			Cyberbullying forms on social media	
			Equal variance assumed	Equal variances not assumed
Levene's Test for Equality of variance	F		6.5	
	Sig.		0.01	
t-test for equality of mean	T		−3.6	−3.6
	Df		346	337.3
	Sig. (2-tailed)		0.001	0.001
	Mean difference		−3.7	−3.7
	Std. Error Difference		1.0	1.0
	95% Confidence Interval of the difference	Lower	−5.6	−5.6
		Upper	−1.7	−1.7

Source: Ngange, Nkengafack, & Mesumbe, 2024.

of the University of Buea. An Independent Samples T-Test was conducted to measure whether there is a statistically significant mean difference in exposure to cyberbullying on social media between male and female students in the University of Buea. Since, *P*-value ($P = 0.001$) is less than 0.05, the finding shows that there is a statistically significant mean difference between the two independent groups. The result of the test was statistically significant at a 0.05 level with a 95% confidence interval. Thus, hypothesis two is debunked.

4.9. Consequences of Cyberbullying on Students

On Table 9, the results of gender differences in the consequences of cyberbullying on students are presented**.** The findings indicate that female students (11.8%) are slightly suffering from social exclusion as a result of cyberbullying more than male students (11%); male students (10.1%), on their part, are suffering slightly from low self-esteem as a result of cyberbullying more than female students (9.8%); male students (12.7%) are victims of trauma and depression orchestrated by cyberbullying at almost the same level with female students (11.8%).

4.10. (H3): There Is a Significant Mean Difference in the Consequences of Cyberbullying between Male and Female Students in the University of Buea

An Independent Samples T-Test was conducted to measure whether there is a significant mean difference in the consequences of cyberbullying between male and female students in the University of Buea.

The testing of hypothesis three is presented on Table 10 with the Mean difference in the consequences of cyberbullying on male and female students in the University of Buea. The result of the test, $P = 0.4$, is greater than the threshold ($P > 0.05$) which shows that there is no statistical significance in the consequences of cyberbullying between male and female students in the University of Buea. The result of the test was not statistically significant at a 0.05 level with a 95% confidence interval. This suggests that the consequences of cyberbullying are homogenous between male and female students in the University of Buea;

Table 9. Gender differences in the consequences of cyberbullying on students of the University of Buea.

Consequences	Male					Female					Total
	S.A	A	N	D	S.D	S.A	A	N	D	S.D	
Social exclusion	(5.5%) 19	(5.5%) 19	(9.2%) 32	(12.4%) 43	(17.5%) 61	(6.6%) 23	(5.2%) 18	(5.5%) 19	(10.3%) 36	(22.4%) 78	(100%) (348)
Low self-esteem	(5.2%) 18	(4.9%) 17	(8.6%) 30	(11.5%) 40	(19.8%) 69	(5.2%) 18	(4.6%) 16	(7.8%) 27	(11.8%) 41	(20.7%) 72	(100%) (348)
Trauma/ Depression	(5.5%) 19	(7.2%) 25	(7.5%) 25	(11.5%) 40	(18.4%) 64	(4%) 14	(7.8%) 27	(6.0%) 21	(11.2%) 39	(21%) 73	(100%) (348)

Source: Ngange, Nkengafack, & Mesumbe, 2024.

Table 10. Mean difference in the consequences of cyberbullying on male and female students in the University of Buea.

Cyberbullying consequences among students	Gender	N	Mean	Std. Dev.	Std. Error Mean
	Male	174	11.0	10.6	.27348
	Female	174	11.3	10.6	.27293

			Consequences of cyberbullying among students	
			Equal variance assumed	Equal variances not assumed
Levene's Test for Equality of variance	F		0.2	
	Sig.		0.7	
t-test for equality of mean	T		−0.8	−0.8
	Df		346	346
	Sig. (2-tailed)		0.4	0.4
	Mean difference		−30.5	−30.5
	Std. Error Difference		0.4	0.4
	95% Confidence Interval of the difference	Lower	−1.1	−1.1
		Upper	0.5	0.5

Source: Ngange, Nkengafack, & Mesumbe, 2024.

thus, hypothesis three is debunked.

5. Discussion

5.1. Exposure to Cyberbullying and Social Media Use

This study uncovers that male students are adopting social media because of its trending and intriguing features while female students are adopting social media because it is resourceful, cost-effective, and convenient. These findings support Hossain & Prodhan (2020) who revealed that significant differences existed in the purpose of social media use between male and female students in Bangladesh. They found that male students were more active on social media than female students. They also found that differences existed in preferred social media platforms between male and female students. While male students prefer to use Facebook to gratify their needs, female students prefer YouTube. Equally, they revealed that male students spent more time on social media when compared to female students. This shows that differences exist in social media use among male and female students.

The findings also reveal that students at the University of Buea mostly use WhatsApp followed by Facebook, YouTube, Telegram, Snapchat, TikTok, Instagram, Twitter, and LinkedIn for diverse purposes. In line with this finding,

Saha & Guha (2019) realised that students from two selected Universities in Bangladesh were mostly using Facebook and YouTube for diverse purposes. Instagram and Twitter were the least used. Also, Hossain & Prodhan (2020) found that Facebook, YouTube, and WhatsApp were mostly used by students at the University of Bangladesh. This indicates that university students are mostly leveraging WhatsApp, Facebook, and YouTube.

Equally, the findings show that students at the University of Buea are leveraging social media for communication, academic purposes, information acquisition, business purposes and to establish relationships. In line with this finding, Ajjan & Hartshorne (2008) stated that social media supports learning practices, facilitates the sharing and delivery of educational content, promotes social contacts and relationships, facilitates information acquisition, and enhances communication with friends and loved ones. Ngange & Tcewo (2017) made similar findings on ICT use for teaching and research at the University of Buea.

Equally, the findings support Stutzman (2006), who articulated that social networks can be used for passing time, learning about other people, maintaining social relations, and following changes at the university, class, or school enrolled in. The results also corroborate Joinson (2008) who asserted that individuals use social networks to keep in touch with old friends, find lost contacts, communicate with like-minded people, join groups with shared interests, organize or join events, view and tag photos, share/post photographs, play games, update one's status, see others' status, amongst others.

In terms of gender differences, the findings reveal that male students in the University of Buea use social media more for communication and business purposes while female students do so for academic purposes, and to build relationships. In line with this finding, Mazman & Uslu (2011) realised that females use Facebook for maintaining existing relationships, academic purposes, and following agendas more than males, while males tend to make new relationships on social networks more than females (Thelwall, 2008).

The findings have equally revealed that most of the students spend a greater proportion of their daily time on social media sites. The frequent and intense use of social media exposes students to cyberbullies. It has been revealed that both victimisation and perpetration of cyberbullying are related to greater computer proficiency, frequent Internet use, more use of electronic communication tools, more Internet risk behaviour (since online activity in social networks requires creating a personal profile), and more revealing of personal details or ways of making contact (Huang & Chou, 2010; Katzer, Fetchenhauer, & Belschak, 2009; Mesch, 2009; Vandebosch & Van-Cleemput, 2009).

5.2. Students' Exposure to Various Forms of Cyberbullying on Social Media

The findings have revealed that a minority of students are exposed to various forms of cyberbullying on social media sites. These forms include impersonation, harassment, unmannered behaviour, hacking, lack of privacy, and use of

offensive words. In line with this finding, Abaido (2019) said University students in the United Arab Emirates were exposed to offensive comments, hate speech, pictorial shaming, posting, or sharing of embarrassing photos and videos, spreading of rumours, stalking and ridicule on social media. The descriptive findings specified that male students are exposed to various forms of cyberbullying like social media harassment, privacy intrusion, uncontrolled arguments, hacking, and uncivil behaviour, more than female students. Kristjansson & Sigfusdottir (2009) stated that parental support could be used to justify why male students are more exposed to cyberbullying than female students. The scholars asserted that boys usually receive less parental support and monitoring than girls. Thus, little or no parental support exposes boys to cyberbullying. Also, Kim & Kang (2016) and Yoo (2021) stated that peer support serves as a source of capable guardianship and accounts for gender differences in exposure to cyberbullying on social media. Higher levels of peer support are associated with fewer experiences of cyberbullying victimisation. This is because peers can provide emotional support, boost psychosocial adjustment, and foster adaptive skills (Rueger, Malecki, & Demaray, 2008). Females tend to report higher degrees of attachment to their peers than boys (Nickerson & Nagle, 2005). As a result, females are less likely to experience cyberbullying than males.

5.3. Consequences of Cyberbullying among Students in the University of Buea

This study has revealed that cyberbullying causes students to experience trauma and depression, social exclusion, and low self-esteem. This finding aligns with Perren, Dooley, Shaw, & Cross (2010), who found that cyberbullying leads to low self-esteem and poor academic performance. This study is also in line with Navarro, Ruiz-Oliva, Larrañaga, & Yubero (2015), who found that cyberbullying results in loneliness. It also reinforces Salus (2012), who stated that feelings of discomfort, fear, worry, loneliness, and depression are some of the consequences of cyberbullying.

The findings also confirm the work of Chukwuere, Chukwuere, & Adom (2021). They examine the psychosocial impact of cyberbullying on social media among 99 students in Nigeria, Ghana, Zimbabwe, and Cameroon. The study reveals that cyberbullying on social media affects students' psychosocial state and runs down their emotions. Cassim (2013) also realizes that cyberbullying causes emotional trauma. It also leads to suicidal thoughts and suicide (Makori & Agufana, 2020), feelings of discomfort fear, worry, loneliness and depression (Salus, 2012).

In terms of gender difference, the result of an Independent Samples T-Test showed that there is no statistically significant mean difference ($P = 0.4$) in the consequences of cyberbullying between male and female students in the University of Buea. The result of the test was not statistically significant at a 0.05 level with a 95% confidence interval. This finding suggests that the consequences of cyberbullying are homogenous among male and female students in the Univer-

sity. This result supports previous studies (Balakrishnan, 2015; Beran & Li, 2007; Hinduja & Patchin, 2008), that established no gender differences in rates of cyberbullying victimisation between genders. However, Wong, Cheung, & Xiao (2017) posited that males and females react differently to cyberbullying victimisation.

5.4. Implications for Theory

The findings support the Diffusion of Innovations theory. The theory explains how individuals adopt innovations over time. The findings have revealed that social media technology is an innovation. The technology is spreading across different systems. The adoption of this technology varies from one student to another. Most students at the University of Buea have adopted WhatsApp, Facebook, YouTube, and Telegram, while the minority have adopted TikTok, Snapchat, Instagram, LinkedIn, and Twitter. The number of hours spent on these social media sites varies from one student to another. The findings have revealed that most of the respondents spend a greater proportion of their time on WhatsApp, Facebook, and Twitter. This shows that the students have highly adopted WhatsApp, Facebook and Twitter when compared to TikTok, Snapchat, Instagram, LinkedIn, and Twitter. This confirms the students as heavy users/viewers of (social) media—a concept first propounded by Gerbner & Gross (1976) in their Cultivation theory and article on *"Living with Television: The Violence Profile"* published by the Annenberg School of Communication Journal, Volume 26:2.

The findings also affirm the Uses and Gratification theory. The theory asserts that people use media to gratify specific wants and needs. The Uses and Gratifications theory sees users as active agents who have control over their media consumption. Based on the theory, the students use social media to communicate and reconnect with friends, for academic purposes, information acquisition, relationship building, job search, and advertisement—things which are vital for them in their academic journey. The use of social media for these purposes gratifies the needs of the students. In line with this finding, the Media Dependency theory postulates that the more reliant (dependent) an individual is on the media to have his or her needs satisfied, the more essential the media will be to that individual. In this connection, individuals may develop dependency relations with the media if they find the resources provided by the media helpful in accomplishing various goals. The ability of social media sites to meet the needs of students has increased dependency. The students depend on social media sites, notably WhatsApp, Facebook, YouTube, and Telegram to meet their needs and wants.

6. Conclusion

The conclusion of this study is based on the specific objectives: to analyse gender differences in social media use and exposure to cyberbullying; and determine the

consequences of cyberbullying among students in the University of Buea.

The factors influencing social media use among students in the University of Buea have been uncovered. The factors include resourceful content, cost-effectiveness, convenient nature, intriguing features, and societal trends. While male students use social media because of its trending and intriguing features, female students adopt social media because it is resourceful, cost-effective, and convenient. Also, male students mostly use social media for communication and business purposes while females prefer academic purposes, and to build relationships. Equally, the results have disclosed that the students are mostly exposed to WhatsApp, Facebook, and YouTube. They rarely use TikTok, Twitter, Telegram, Snapchat, Instagram, and LinkedIn; thus, they spend most of their time browsing on WhatsApp, Facebook and YouTube.

The students are exposed to various forms of cyberbullying like impersonation, harassment, uncivil/unmannered behaviour, privacy intrusion, hacking, unjustified blocking, deliberate removal from social media groups and uncontrolled arguments. The results further indicated that male students are more exposed to various forms of cyberbullying than female students. The consequences of cyberbullying among students include trauma/depression, social exclusion, and low self-esteem. The students face the consequences on equal terms—male or female. Thus, they should use social media with extreme caution.

7. Recommendations

From the findings of this research, recommendations are made to students:

Social media users, including students, should avoid sharing their social media login details with friends and loved ones. They should ensure that friends and loved ones do not have access to their social media passwords, social media settings and recovery emails. This will contribute to reducing the rate of hacking, privacy intrusion and social media harassment.

Students should also ensure that their social media passwords are difficult to speculate and manipulate. Their passwords should not contain basic information such as phone numbers, email addresses, years of birth and full names. Rather, it should be a complex combination of words and figures. This will make it difficult for hackers to have unauthorised access to their social media sites.

Equally, students should reduce the number of hours they spend on social media to minimise their exposure to cyberbullying. The findings have revealed that most of the students spend a greater proportion of their time on WhatsApp, Facebook, and YouTube. This intense use of social media exposes students to various forms of cyberbullying such as hacking, privacy intrusion and online harassment. This will also likely affect their studies negatively.

Finally, students should avoid sharing unverified content on social media sites. Unverified content constitutes a form of social media bullying and tarnishes the reputation of others. This is also punishable by Law No 2010-12 of 21 December relating to cybersecurity and cybercriminality in Cameroon. Students

should, therefore, always authenticate the content they share on social media sites to mitigate social media bullying and avoid facing the heaving hand of the law.

Additionally, this research did not measure the extent to which students are perpetrating cyberbullying on social media platforms. It considered students to be victims. Future research on this subject should measure the extent to which students are perpetrating cyber-attacks on social media. It should also measure the extent to which lecturers are victims of cyberbullying on social media.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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