

Investigating the differential effects of social media addiction on teenagers' mental health: A study of high school learners in the KZN Province

by

Zekhethelo Nikeziwe Khumalo

19630883

submitted in accordance with the requirements for
the degree of

Master of Arts

Communication Science

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: Prof. F.O Makananise

CO-SUPERVISOR: Dr N.I. Mabidi

Date of submission: 19 April 2026

DECLARATION

Name: _Zekhethelo N. Khumalo_____

Student number: _19630883_____

Degree: _M.A: Communication Science_____

I declare that: (Exact wording of the title of the thesis as appearing on the electronic copy submitted for examination)

Investigating the differential effects of social media addiction on teenagers' mental

health: A study of high school learners in the KZN Province

I declare that the thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references, and that any use of Artificial Intelligence (AI) has been fully disclosed.

I further declare that I submitted the thesis to the appropriate originality detection system, which is endorsed by Unisa, and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.

I further declare that where Artificial Intelligence (AI) tools have been used in the preparation of this thesis/dissertation, their use has been limited to ethically permissible support, has been fully disclosed, and does not replace my own original research, my independent critical thinking and analysis, or authorship responsibilities.

I understand that failure to disclose AI use, plagiarism and/or lack of academic integrity may constitute academic misconduct under Unisa's policies.

(The thesis will not be examined unless this statement has been included.)



SIGNATURE

19 April 2026
DATE

ACKNOWLEDGEMENTS

I would like to start by expressing my sincere gratitude to God for His never-ending love and support during this study; without Him, I likely would have given up after the first chapter (😅). It required faith in Him and the belief that *konke ngaye kuyenzeka*.

To everyone who assisted me in completing this study, especially my research respondents, THANK YOU! Your contribution was essential, and this would not have been possible without you. A special thanks also goes to my supervisors, Professor F.O Makananise and Dr N. I Mabidi, for their guidance and patience, '*izandla zedlula ikhanda*'.

Lastly, I would like to acknowledge and express my heartfelt gratitude to my daughter, as little as she is, for understanding and accepting the reality of being unable to spend as much time with her as we would both like. This is surely dedicated to her as she has been a huge motivation for me to keep going, even on days when I felt the urge to throw in the towel, and for that, I am forever grateful.

ABSTRACT

In today's digital age, teenagers are growing up in a digital culture where social media platforms are prevalent and substantially influence various parts of their lives. This study sought to investigate the effects of social media addiction on the mental health of teenage learners at Sacred Heart Secondary School (SHSS) in the KwaZulu-Natal province, South Africa. The study sought to provide vital insights into how social media influence the mental health of high school teenagers and to identify strategies to lessen these effects, particularly for teenagers in rural schools like SHSS. As a boarding school, teenagers are often compelled to seek connections beyond their immediate environment, making this investigation especially relevant. To address the research problem and to achieve the objectives, a quantitative research approach and descriptive research design were employed, with 113 teenage learners selected through a stratified technique from SHSS. The respondents in this survey provided feedback using a self-administered questionnaire with both closed-ended and open-ended questions, and the results were coded using the Statistical Package for Social Sciences (SPSS) software, version 3.0.0.0 (172) and presented in graphs and tables. The results indicated that teenagers spend at least 1-3 hours on social media per day, suggesting a significant level of engagement that could influence mental health outcomes. Furthermore, the study findings established that excessive use of social media can lead to diverse effects on the mental health of teenagers, including disrupted sleep patterns, difficulty in concentration or decision-making, feelings of nervousness or being tense and anxious, often because of stress. Additionally, a relatively small but significant portion of teenagers are affected by cyberbullying, also indicating the importance of addressing cyberbullying proactively, as it can have serious consequences for teenagers' psychological well-being even if only a small number of teenagers is affected. The study also highlighted that although excessive use of social media can be associated with diverse negative effects, positive feelings of connection and support can also be found, which can be beneficial for their mental health. Moreover, the study found that learners from higher-income backgrounds often engage with a variety of platforms, which contributed to higher anxiety levels. Based on these findings, the research sought to add to the growing body of knowledge regarding social media use in South African high

schools and provide practical recommendations, i.e. parents monitoring their kids screen time to assist in managing their social media usage and protecting their mental well-being.

Keywords: Social Media, Social Media Addiction, Teenagers, Mental Health, Sacred Heart Secondary School

LIST OF ACRONYMS

ADHD - Attention Deficit and Hyperactivity Disorder

FOMO - Fear of Missing Out

KZN - KwaZulu-Natal

OCD - Obsessive-Compulsive Disorders

RSPH - Royal Society for Public Health

SHSS - Sacred Heart Secondary School

SPSS - Statistical Package for Social Sciences

UNICEF - United Nations Children's Fund

US - United States

WHO – World Health Organisation

X – Twitter

List of Figures

Figure 1.1: A satellite image showcasing the layout and surrounding environment of Sacred Heart Secondary School, highlighting the school's infrastructure and geographic context.....6

Figure 3.1. A pictorial representation of the research process..... 57

Figure 3.2. An overview of how a population is stratified68

Figure 4.1: Respondents' Age Groups88

Figure 4.2: Respondents' Race89

Figure 4.3: Respondents' Educational Level90

Figure 4.4: Most visited social media platforms daily..... 91

Figure 4.5: Time spent on social media per day92

Figure 4.6: Social media usage before sleeping94

Figure 4.7: Stress and anxiety caused by limited access to social media95

Figure 4.8: Respondents who unintentionally spent more time on social media..... 96

Figure 4.9: Respondents who felt the need to regularly monitor their social media accounts97

Figure 4.10: Respondents who perceive themselves as being addicted or not addicted to social media98

Figure 4.11: The influence of social media on self-esteem and body image100

Figure 4.12: Social media addiction and depression102

Figure 4.13: Social media addiction and anxiety.....103

Figure 4.14: Cyberbullying and Mental Health.....105

Table 1.1: The distribution of social media users.....	2
Table 4.1: Comparison of cyberbullying with other studies.....	106
Table 4.2: Number of social media platforms used and their associated mental health scores.....	111
Table 4.3: Frequencies of the number of platforms reported as being used by the learners.....	111

CONTENTS

Cover page.....	i
Declaration.....	ii
Acknowledgements.....	iii
Abstract.....	iv
List of acronyms.....	v
Figures.....	vi
Tables.....	vii
Chapter: Introduction and Background to the Study	
1.0 Introduction.....	1
1.1. Background to the Study.....	1
1.2. Problem Statement.....	6
1.4. Theoretical Framework.....	9
1.4.1. <i>The Media Dependency Theory</i>	9
1.4.2. <i>Psychodynamic Theory</i>	11
1.5. <i>Literature Review</i>	12
1.5.1. <i>Excessive Use of Social Media and Teenagers' Mental Health</i>	12
1.6. Definition of Key Concepts.....	15
1.7. Purpose of the Study.....	16
1.8. Research Objectives, Questions and Hypotheses.....	16
1.8.1. Research Questions.....	16
1.8.2. <i>Research Objectives</i>	17
1.8.3. <i>Research Hypotheses</i>	17
1.9. Research Paradigm.....	17
1.10. Study Approach and Design.....	18
1.10.1 <i>Research Approach</i>	18

1.10.2. <i>Research Design</i>	19
1.11. Study Setting, Study Population, Sampling and Sample Size.....	20
1.11.1. <i>Study Setting</i>	20
1.11.4. <i>Sample Size</i>	22
1.12. <i>Inclusion and Exclusion Criteria</i>	22
1.13. Data Collection Method(s) and Procedures.....	23
1.14. Data Analysis Method.....	24
1.15. Ensuring Rigour.....	25
1.15.1. <i>Validity</i>	25
1.15.2. <i>Reliability</i>	25
1.15.3. <i>Objectivity</i>	26
1.16. Ethical Considerations.....	26
1.16.1. <i>Informed Consent</i>	26
1.16.3. <i>Voluntary Participation</i>	27
1.16.4. <i>Privacy</i>	27
1.16.5. <i>Confidentiality</i>	28
1.16.6. <i>Anonymity</i>	28
1.16.7. <i>The Right to Withdraw from the Study</i>	29
1.16.8. <i>Harm and Risk</i>	29
1.17. Conclusion.....	30
Chapter: Theoretical Framework and Literature Review	
2.0. <i>Introduction</i>	32
2.1. <i>Theoretical Framework</i>	32
2.1.1. <i>The Role of Theory in Research</i>	32
2.1.2. <i>The Media Dependency Theory</i>	33
2.1.2.1. <i>The application of the Media Dependency Theory to the study</i>	36
2.1.3. <i>The Psychodynamic Theory</i>	37
2.1.3.1. <i>The application of Psychodynamic Theory in the study</i>	40
2.2. <i>The Review of Related Literature on Social Media and Mental Health</i>	41

2.2.1. <i>The Evolution of Social Media in the South African Context</i>	41
2.2.2. <i>Excessive Use of Social Media and Teenagers' Mental Health</i>	44
2.2.3. <i>Factors Contributing to Social Media Addiction among Teenagers</i>	47
2.2.4. <i>The Relationship between Social Media Use and Feelings of Loneliness and Isolation among Teenagers</i>	50
2.2.4.1. Facebook.....	51
2.2.4.2. X (Twitter).....	52
2.2.4.3. Instagram.....	53
2.2.4.4. Whatsapp.....	54
2.3. Conclusion.....	56
 Chapter 3: Research Design and Methodology	
3.0. Introduction.....	57
3.1. Research Paradigm.....	58
3.2. Research Methodology.....	59
3.2.1. <i>Research Approach</i>	60
3.2.1.1 <i>Quantitative Research Approach</i>	60
3.2.2. <i>Research Design</i>	62
3.3. Study Setting and Study Population.....	64
3.3.1. <i>Study Setting</i>	64
3.3.2. <i>Study Population</i>	65
3.4.1. <i>Sampling Technique</i>	66
3.4.2. <i>Sample Size</i>	69
3.4.3. <i>Inclusion and Exclusion Criteria</i>	70
3.5. Data Collection Methods and Procedure.....	71
3.5.1 <i>A Self-Administered Survey Questionnaire</i>	71
3.5.1.1 Characteristics of Self-Administered Survey Questionnaire.....	72
3.5.1.2 The Advantages of Using a Self-administered Questionnaire.....	72
3.5.2 <i>Data Collection Procedure through a Self-administered Questionnaire</i>	73
3.6. Data Analysis Method.....	75
3.7. Research Quality Criteria for Quantitative Study.....	76

3.7.1. <i>Validity</i>	76
3.7.2. <i>Reliability</i>	77
3.7.3. <i>Objectivity</i>	77
3.8. Ethical Considerations.....	78
3.8.1. <i>Informed Consent</i>	78
3.8.2. <i>Privacy</i>	79
3.8.3. <i>Anonymity and Confidentiality</i>	79
3.8.4. <i>Voluntary Participation and The Right to Withdraw from The Study</i>	80
3.8.5. <i>Harm and Risk</i>	81
3.9. Conclusion.....	82

Chapter 4: Data Presentation and Analysis

4.0. Introduction.....	83
4.1 Background Information.....	83
4.2 Restating the Research Questions and Questionnaire Information.....	84
4.3. Data Presentation and Data Analysis.....	86
4.3.1. <i>Demographics of Respondents</i>	87
4.3.1.1. Respondents' Age Groups.....	88
4.3.1.2. Respondents' Race.....	89
4.3.1.3. Respondents' Educational Level.....	90
4.3.2. <i>Social Media Usage Patterns</i>	91
4.3.2.1. Most visited social media platforms daily.....	91
4.3.2.2. Time spent on social media per day.....	92
4.3.2.3. Social media usage before sleeping.....	94
4.3.3. <i>Mental Health and Social Media Impact</i>	95
4.3.3.1. Anxiety and stress caused by limited access to social media.....	95
4.3.3.2. Respondents who unintentionally spend more time on social media.....	96
4.3.3.3. Respondents who felt the need to regularly monitor their social media accounts.....	97
4.3.4. <i>Social Media Addiction Perception</i>	98
4.3.4.1. Respondents who perceive themselves as being addicted or not addicted to social media.....	98
4.3.5. <i>Effects of Social Media on Mental Well-being</i>	100
4.3.5.1. The influence of social media on self-esteem and body image.....	100

4.3.5.2. Social media addiction and depression.....	102
4.3.5.3. Social media addiction and anxiety.....	103
4.3.6. <i>Cyberbullying and Mental Health</i>	105
4.3.7. <i>Correlation between Time Spent on Social Media and Mental Health Symptoms</i>	107
4.3.8. <i>Relationship between Socio-economic Status and Social Media Usage and Mental Health Issues</i>	111
4.4. Conclusion.....	112
Chapter 5: Summary of the study, Recommendations and Conclusion	
5.0. Introduction.....	114
5.1. Summary of the Study Findings.....	114
5.2. Limitations of the Study.....	117
5.3. Recommendations from Study Results.....	119
5.4 Suggestions for Future Research.....	120
5.5. Conclusion of the Study.....	121
5.6. Chapter Summary.....	123

CHAPTER ONE

INTRODUCTION AND OVERVIEW OF THE STUDY

1.0. Introduction

This chapter focused on the introduction, background, and significance of the entire research. The chapter further outlined the research problem, objectives, main research questions, chosen theories, methodologies, data collection and analysis techniques that help establish a foundation for understanding the complex relationship between social media and mental health. Through the proposed approaches and theoretical frameworks, this chapter lays the foundation for a detailed investigation, which has later been developed in the subsequent chapters through literature reviews, detailed frameworks, methodologies, and findings. In a nutshell, the study focused on the prevalence of social media addiction among teenage learners and its potential effects on their mental health, including issues like anxiety and depression.

1.1. Background to the Study

According to Bishop (2019), social media are a form of digital media technology that are also critical to facilitate interpersonal communication and online engagement in contemporary society. Wolf, Sims, and Yang (2018) once indicated that these forms of digital communication are a key tool in today's digital work, as they are used to share quickly a wide range of information and make it easy for people to have conversations with each other. Huberman (2010) noted that social media involves communication and sharing of information or thoughts between individuals in online communities and networks. Moreover, the most common forms of social media include but are not limited to Facebook, WhatsApp, Instagram, X (Twitter), Pinterest, TikTok, YouTube, Tumblr, LinkedIn and email. Therefore, for this study, social media refers to any socialising digital platform, including popular websites and applications such as Facebook, X, TikTok, Instagram, WhatsApp, LinkedIn, YouTube, Pinterest, and Snapchat. Additionally, DataReportal (2025) reported that as of 2025, there are 26.7 million users in South Africa, equating to 41.5% of the total population, and the numbers are still growing. Asmal (2022) revealed that the most widely used social media platforms in

South Africa are WhatsApp, Facebook, TikTok, Instagram, X and LinkedIn, with nearly all social media users having an account. Table 1.1 shows the distribution of social media users according to age groups and the percentages they hold.

Table 1.1 The distribution of social media users.

Age Group	% of Social Media Users in SA
13 - 18	9.5%
19 - 24	27.1%
25 - 34	29.4%
35 - 44	17.9%
45 - 54	7.1%
55 – 65	3.5%
65+	5.5%

The total percentage of teenagers using social media in South Africa in 2025 is estimated to be between 15 – 20% (Meltwater, 2025). Kemp (2023) once highlighted that one of the many reasons teenagers use social media platforms is to stay in touch with relatives and close companions. In addition, McCall (2021) posited that users may be able to receive helpful remarks, likes, develop empathy, or connect with others who are dealing with similar problems. Although this may be seen as an advantage, research conducted by Robinson and Smith (2022) showed a strong link between heavy social media usage and an increased risk for depression, anxiety, loneliness, self-harm, and even suicidal thoughts. Most importantly, the South African Depression and Anxiety Group (2019) noted that suicide accounts for almost 9% of all young adult deaths, specifically in South Africa, and it is the second largest and fastest-growing cause of mortality among young South Africans aged 15 to 25. Moreover, these statistics highlighted the increasing centrality of social media in the lives of young people, making it an influential space for identity formation, peer interaction, and emotional expression. This underscores the urgent need to interrogate how digital engagement shapes both positive developmental experiences and emerging psychosocial risks.

It is vital to argue that the contrast between social benefits and documented mental-health vulnerabilities suggests that social media functions as a dual-impact environment that can either support or undermine youth resilience. Therefore, analysing these patterns is essential for developing context-specific strategies or interventions that respond to the realities of South African youth in a rapidly digitising society. Lukose et al. (2023) further observed that excessive usage of social media appears to be contributing towards a negative and detrimental effect on mental health status among young adults in Buffalo City Metropolitan Municipality. This means, teenage learners in high schools are also at risk of vulnerability and poor mental health, such as depression, anxiety and low self-esteem when using social media because it can sometimes open a platform for harassment and bullying, which can negatively impact the teenagers' self-esteem and overall well-being (Wicham, & Acitelli, 2014). This may, in turn, distract them from their academics and responsibilities, which then lead to failure and feelings of failure.

According to UNICEF (2020), during and post-COVID-19, there was an exponential increase in the types and accessibility of social media, and Meltwater (2024) further revealed that South Africans spend a lot of time on social media compared with the global average. While a study published by Stellenbosch University (2025) observed that the average time spent on social media by teenagers in South Africa is 3 hours 17 minutes per day, and teenagers in higher grades tend to spend more time on their devices per day. In addition, Yen, et al. (2022) once classified the act of engaging in social media activities for 21 hours a week, which can be broken down to 3 hours a day, and can be classified as an addiction to social media. Wigmore (2023) described social media addiction as an overuse or difficulty in abstaining from social media. Sally (2006) once highlighted that there are various symptoms of social media addiction, such as increased frequency of use and dishonesty regarding usage duration and frequency, as identified by persistent mental involvement with social media and its elements, dependence on social media for problem-solving, and continued engagement with social media despite awareness of the detrimental results of excessive use. Social media addiction can cause significant mental health and social challenges as well as a

decline in people's lives when they use social media excessively and uncontrollably (Younes, Halawi, Jabbour, Osta, Karam, Hajj, & Khabbaz, 2016). In a nutshell, the Centres for Disease Control and Prevention (2021) defined mental health as the state of our social, emotional, and psychological well-being. It influences how individuals think, behave, and express themselves.

Furthermore, Keles, McCrae, and Grealish (2020) established that social media were used increasingly as a leisure activity amongst most learners in their study. The research conducted by Ivie, et al. (2019) discovered that there is a slight yet notable connection between adolescent depression symptoms and social media usage. While Gao's (2020) study also indicated that excessive use of social media could lead to adverse effects on a person's mental health, with a particular emphasis on the period of the COVID-19 pandemic in Wuhan. This indicated that using social media excessively can lead to negative effects on teenagers' mental health, with evidence suggesting that this observed relationship became more pronounced during the COVID-19 pandemic.

According to a study conducted by Farhangpour, Maluleke, and Mutshaeni (2019), in South Africa, the unethical use of social media or cyber-bullying had a significant negative impact on the emotional well-being and academic performance of learners, with some even experiencing suicidal thoughts. In addition, Townsend (2008), once discovered that high rates of cyber-bullying among Grade 8 learners in Cape Town (52%), 36.3% in grade 8 and 11 learners in Durban (Liang, Flisher, & Lombard, 2007), 24.3% in grade 9 learners in Gqeberha (Flisher & Lombard, 2006), and rural high school students in the Eastern Cape was 16.49% (Mlisa, 2008), and 11.8% in Mpumalanga (Taiwo & Goldstein, 2006). This is a clear indication that there is an increasing online cyberbullying among teenagers in various provinces in South Africa. Specifically, it suggests that cyberbullying is a widespread issue affecting teenagers at different educational levels and in rural areas. These studies highlighted the potential negative effects that may be associated with mental health that may arise from excessive or problematic use of social media. As this study has been conducted in Durban, the results from there are of notable concern, and the statistics from other regions support

the importance of investigating these issues in 2025 locally in Durban, as similar or possibly higher rates of related social media problems might exist.

Therefore, it is crucial to further argue that although there have been studies conducted to examine the correlation between social media addiction and the well-being of young people in the Global North, including Xiao et al. (2025); Shannon et al. (2022); Sala et al. (2024); Boer et al. (2020), scarce studies have been conducted to determine on the effects of social media on the mental health of teenagers in the South African context, especially in the KwaZulu-Natal Province. Therefore, this study has been designed to fill the current research gap by focusing on the effects of social media addiction on the mental health of teenagers at Sacred Heart Secondary School (SHSS) in the KZN province, South Africa. SHSS is a rural public high school located on the North Coast of the KwaZulu-Natal Province, in the City of Durban, under Verulam town, and falls within the Pinetown District Municipality. The school was an area of interest to conduct the research because it is a rural-based, females-only boarding school, and there is limited research focusing specifically on rural teenagers in boarding schools, creating a significant research gap in understanding how social media usage affects their mental health. Additionally, living in rural areas or attending boarding school may lead to social isolation and fewer recreational activities, which might increase the likelihood that learners rely on social media as their primary means of social interaction. Moreover, the school was further chosen simply because most learners have access to mobile phones and a variety of social media platforms and may encounter diverse content and interaction styles, which can differently influence their mental health.

Furthermore, this study examined the relationship between social media addiction and the mental health of high school learners, and it proposed actionable recommendations to mitigate its adverse effects. The findings could contribute to the body of knowledge in the region by illuminating how excessive and compulsive social media use influences the psychological well-being of adolescents at SHSS and, more broadly, within the South African context. Importantly, the study generated novel insights regarding female learners in rural boarding-school settings. It enhanced understanding of the patterns through which social media use manifests among rural teenage learners, including their

preferred platforms, usage duration, and levels of digital literacy. The evidence indicated that many learners have limited awareness of what constitutes problematic or addictive social media engagement. Although the study did not include a comparative analysis with urban schools, it nonetheless advances new empirical knowledge by revealing that rural teenagers experience a wide spectrum of mental health challenges—particularly symptoms associated with depression and anxiety, such as sleep disturbances, impaired decision-making, persistent worry, and heightened nervousness. These findings underscored the distinct vulnerabilities faced by adolescents in rural educational environments.



Figure 1.1: A satellite image showcasing the layout and surrounding environment of Sacred Heart Secondary School, highlighting the school's infrastructure and geographic context.

1.2. Problem Statement

In the last decade, there has been a significant increase of social media users worldwide, with the number of online users growing from 3.71 billion in 2020 to 5.66 billion in 2025, with platforms like Facebook, WhatsApp and TikTok taking the lead for having many users (DataReportal, 2025). Accordingly, teenagers are the most devoted consumers of social media and account for at least ninety per cent of social media use

(Pew Research Centre, 2023). Kessler et al. (2007) reported that 50% of mental health-related issues start showing up by the age of 14 and 75% by age 18, respectively. An article published by the World Health Organisation (2024) discovered that 11% of teenagers showed signs of problematic social media behaviour, struggling to control their use and experiencing negative consequences, with girls reporting higher levels of problematic social media use than boys.

Furthermore, in the recent years, social media addiction has become a concerning issue among teenagers who are more susceptible to the negative impacts of excessive social media use (Andreassen & Pallesen, 2020). In South Africa, there are about 39.15 million active social media users (Statista, 2025). Notably, 15.8% of social media users in South Africa fall within the teenage group of 13 to 17 years (Global Digital Report, 2023). These statistics highlight the widespread use of social media among teenagers, indicating the importance to understand and address the potential negative effects of social media addiction on this specific demography.

According to the South African Depression and Anxiety Group (2025), teenage suicide accounted for almost 9% of all young adult deaths in South Africa, and it is the second largest and fastest-growing cause of mortality among young South Africans aged between 15 and 25. In South Africa, instances of suicide have been linked to the harmful effects of social media, such as a learner at Mbilwi Secondary School who took her own life following relentless bullying and humiliation that was shared on social media (IOL, 2021). Several news reports by IOL (2022), News24 (2022) and TimesLive (2023) published that a learner in Gqeberha attempted suicide after a humiliating photo was posted online, while a teenager in Durban and another in Orange Farm tragically ended their lives after sustained cyberbullying (IOL, 2022). These incidents demonstrates the negative effects of social media on the mental health of teenagers.

In the KwaZulu-Natal (KZN) province, a study by Nkwanyana (2025) identified a mixed relationship between cyberbullying and psychosocial effects. Although no direct link was found between cyberbullying and psychosocial indicators, the results revealed a strong connection between cyberbullying and factors like anxiety, self-esteem, and mental health problems. Additionally, Akpan, Akinmolayan, Adeyiga, and Usadolo (2025)

investigated the relationship between social media use among young women and concerns related to body image, self-esteem, and mental health in KwaZulu-Natal. They found that mental health problems are prevalent among young, middle-aged women and female learners, affecting their social interactions, social skills, communication development, and education. They further concluded that the identified issues negatively impacted young females' learning experiences, primarily by distracting them from academics and shifting their focus towards online gratification. Moreover, Khuzwayo, Taylor, and Connolly (2018) discovered that the rate of suicide attempts among South African learners was notably high and influenced by various risk factors, including multiple risky behaviours. Risks such as being bullied via Facebook or WhatsApp were significantly associated with suicidal plans and attempts.

Despite the growing body of research, the specific ways in which social media affects the mental health of teenagers remain unclear, as the above cited studies suggests conflicting findings. The mental health of teenagers, particularly those in rural high schools, has not received extensive investigation in terms of the effects of social media addiction. Consequently, there are concerns regarding the impact of social media on the overall well-being of learners, leading the current research to investigate the role of social media on mental health. Therefore, it is against this backdrop that this study investigates the social media's role in teenagers' mental health at Sacred Heart Secondary School in the KZN province, South Africa. Although the researcher is unaware of any mental health issues, especially those linked to social media, they chose this location to investigate whether such problems are present as a result of social media.

1.3. Rationale

According to Creswell (2008), the rationale of the research normally seeks to answer the "why" of a study. However, there is less research on how social media can harm the learners' mental health, particularly in rural areas. In addition, studies conducted by Keles et al. (2020), Pellegrino, Stasi and Bhaiasevi (2022), and Arias-de la Torre et al. (2022) suggested that excessive social media usage may lead to various detrimental effects on learners' behaviour, which may include interpersonal connections and

academic performance. Additionally, such behaviours might result in procrastination, cyberbullying, stalking, and sexting. Given the seriousness of this matter, it is vital to conduct research on social media addiction and its effects on teenagers' well-being in a rural environment. By investigating how social media addiction affects the mental health of high school learners, related risks can be reduced, and teenagers can be taught how to use social media responsibly. Since mental health may affect teenagers' academic performance, social relationships, and emotional well-being, this study aimed to offer practical, evidence-based recommendations to address these mental health issues. The community, parents, and teachers also set to benefit from the study as there is limited research conducted in the area about the topic and these benefits include but not limited to understanding the extent and nature of social media addiction among teenagers, identifying signs of mental health issues related to social media use on their teenagers and understanding the unique challenges faced by their teenagers, most especially those in rural areas as this is where the study is conducted. Moreover, the research could enhance our understanding of social media on mental health by establishing a possible correlation between excessive use of social media and psychological well-being.

1.4. Theoretical Framework

Social media usage and its effects on people's well-being can be explained by several communication and mental health theories that have been established in recent years. For this study, the Media Dependency Theory and the Psychodynamic Theory were adopted. The Media Dependency Theory assisted to examine how social media could affect the teenage learners and how dependent the respondents are on social media, while the Psychodynamic Theory helped to explore the teenagers' experience with social media addiction. The two theories are discussed below in detail.

1.4.1. The Media Dependency Theory

The Media Dependency Theory was developed by Sandra Ball-Rokeach and Melvin DeFleur in 1976. This theory mainly focuses on the degree to which a person needs or uses a specific kind of media, which determines how influential that medium is (Qstuan, 2014). Instead of claiming that media impacts are always strong or weak, the

Dependency Theory explains why media have strong effects in certain situations and weak ones in others. This theory postulates that the media becomes more crucial to an individual as they become more dependent or reliant on it to meet their needs/expectations. Ho, Liao and Rosenthal (2015) described media dependency as a connection between the audience's behaviour, media content, and society. DeFleur and Ball-Rokeach (1989) claimed that most active online users who use the media to meet their goals or needs will depend on it. Whereas Kim (2020) assumed that people grow more reliant on media that fulfil their needs and expectations than on media that solely do so. The degree of a person's media reliance depends on how much they think the media they choose are helping them achieve their goals. Chen and Katz (2009) divided these goals into three categories that encompass a wide spectrum of personal ambitions: (1) Social and self-understanding (such as learning about ourselves and the outside world); (2) interaction and action orientation (such as choosing what to purchase, and getting advice on how to deal with breaking news or challenging situations, etc.), and (3) social and private activities (such as unwinding alone or going to the movies with close relatives or friends). Additionally, DeFleur and Ball-Rokeach (1989) established that a single medium may activate (and fulfil) many types of goals.

The media dependency theory has not been extensively employed in studies to investigate how social media has impacted teenage learners' everyday lives, despite considerable effort being invested into analysing how the Internet has developed and the types of information accessible. However, the media dependency theory is used in this study to understand why this study's respondents selected media has such an important influence on their everyday life. In addition, dependency on social media can lead to an increased amount of time spent on it, which may result in media addiction over time and negatively affect an individual's nature and online activities. The theory is relevant to this study because excessive social media use has become widespread among teenagers and, in some cases, has resulted in serious behavioural and psychological issues. Teenagers dependent on social media may suffer isolation, anxiety, or depression. Social media are widely used today, making it difficult to avoid, and the inability to control oneself from using it can lead to psychological problems both

now and in the future due to various factors. Of these problems, addiction poses the greatest threat because it can disturb a person's daily routine and result in a variety of problems that affect various contexts (Tai & Sun, 2007).

1.4.2. Psychodynamic Theory

The Psychodynamic Theory, also known as Psychoanalytic Theory, was developed by Sigmund Freud between 1890 and 1930. The theory focuses on how childhood experiences are crucial in forming our personalities and interactions with the world around us. According to Bornstein (2023), personality is characterised by subconscious psychological processes (such as hidden anxieties). According to Shedler (2019), the key principle of the psychodynamic theory is that most psychological processes in humans take place unconsciously. In simple terms, the activities of the mind are presumed to be unconscious. This theory also assumes that nothing in our mental lives occurs accidentally (Freud, 1890). Furthermore, the theory also states that there is no such thing as random thoughts, feelings, beliefs, behaviour, or motive. Most theorists agree that feelings, thoughts, motives, emotional responses, or behaviours stem from identifiable psychological processes. Freud (1890) believed that our actions are motivated by our thoughts and emotions; therefore, people must become aware of and gain insight into their thoughts and emotions to comprehend and alter their behaviour. Freud (1939) also described that a person's personality has three interacting parts: the ID, Ego, and Superego. According to Freud (1939), the ID is a representation of the impulsive part of us based on unconscious drives. The ego is based on pleasure and involves satisfying our needs to get immediate gratification. The superego represents our morals, ethics, self-criticism, and standards. The ego is known to be a mediator between the id and the superego; it is regarded as a decision-maker and is used to reduce tension and anxiety.

For teenagers, these three interacting parts might look like an impulsive and instinctive part of their character that seeks immediate pleasure; this could include quickly responding to conflicts online or constantly checking their phones and social media without fully considering the consequences. Secondly, it reflect like managing feelings of anxiety or guilt that may arise from social media interactions, which can be helpful for

a teenager, as weighing the pros and cons is always important before reacting. Lastly, this could present itself in teenagers as feelings of guilt when engaging in online behaviours they know are wrong, like sharing inappropriate content.

This theory also relates to this study because it helps people understand their emotions and unconscious patterns of behaviour (Freud, 1939). Several social media platforms are available and stimulate a different aspects of a person's psychological well-being. For instance, social media like Facebook, Instagram, and X can be ego-oriented because they appeal to how people want to show up in their social environment. People can present themselves broadly on these platforms since they are virtual communities. Several studies including, Hussain and Griffiths (2014), Lin, et al. (2017) and Keles, McCrae, and Grealish, (2019) have shown a close relationship between how people represent themselves on social media and their personalities. Furthermore, it depends on the users of the networks and how the networks are used. For instance, one can use Twitter to communicate with familiar people or a large following, and the social repercussions depend on that decision. As fundamental to human nature as our need for safety and sustenance is the desire to connect with others. Social media is a natural outgrowth of our compulsion to connect, so it makes sense that it is such a well-liked leisure. Additionally, smartphone notifications are how our current social media functions. These notifications give us a "hit" and activate our dopamine system, which has a similar effect on the brain to how gambling does. Since it satisfies both our desire for novelty (i.e. you have received a notification) and our need for validation (i.e. someone is thinking of you), this hit can be addictive.

1.5. Literature Review

The brief literature presented in this section is based on the objectives and questions that underpinned the study.

1.5.1. Excessive Use of Social Media and Teenagers' Mental Health

According to World Population Review (2023), among the 8 billion people in the world as of 2023, 5.24 billion are active social media users; of that, 26.7 million are from South Africa. Over 10% of the 26.7 million, that is, 4.35 million are teenagers from

South Africa aged between 13 and 17. Moreover, Latikka, et al. (2022) indicated that social media has become increasingly common in individuals' lives and provides advantages for immediate human interaction. Kennedy (2019) discovered a close correlation between social media use and negative effects on mental health illnesses, which may include depression, anxiety, suicidality, and loneliness. The Royal Society for Public Health (RSPH) (2017) stated that social media use is closely linked to mental health problems, based on their research with approximately 1500 learners, aged between 14 and 24. This serves as evidence of the increasing concern surrounding social media and mental health within society, as demonstrated by numerous research studies cited above. Additionally, the research conducted by RSPH further confirms that greater social media usage can lead to mental health-related problems.

Furthermore, an increasing number of studies on social media addiction have revealed that regular social media use relates to a lower ability to complete cognitive activities and mental effort (Uncapher, Lin, Rosen, Kirkorian, Baron & Bailey, 2017). People who have a problem controlling their access to social media are more likely to suffer from poor mental health (Agyapong-Opoku, Agyapong-Opoku & Greenshaw, 2025). Khan and Khan (2021) revealed that social media addiction negatively affects the user's mental health. Another study by Yas and Horzum (2013) established that, while sadness and internet addiction had a substantial positive association, there was no relationship between self-esteem and internet addiction.

Aparicio-Martinez, et al. (2019) asserted that teenagers who are addicted to social media are more likely to have anxiety problems than non-addicts. Previous research on behavioural addictions has explored several factors that may influence social media addiction, including personality traits (Khan & Khan, 2021). For instance, Hussain and Griffiths (2014) found links between excessive social media use and symptoms of mental health conditions, including anxiety, depression, stress, Attention Deficit and Hyperactivity Disorder (ADHD), and Obsessive-Compulsive Disorder (OCD). However, most of these connections were revealed in the context of sadness and anxiety, notably in teenagers. Pantic, Damjanovic, and Todorovic (2012) highlighted that high school learners who utilise social media daily have greater levels of anxiety and sadness than

those that do not use social media daily. Their findings support those of Steers, Wicham, and Acitelli (2014), which indicated that being on social media for most hours of the day was confirmed to have contributed to learners' depression.

According to WHO (2025), 14.3% of 10–19-year-olds experience mental health conditions, yet these remain largely unrecognised and untreated, and these account for 15 per cent of the global burden of disease in this age group. In addition, WHO (2025) established that depression, anxiety and behavioural disorders are among the leading causes of illness and disability among adolescents. Several studies, including Keles, McCrae, and Grealish (2019) and Lin, et al. (2016) discovered a strong link between social media and mental health-related issues, specifically an increase in depression, anxiety, and low self-esteem. Furthermore, Arendt, Scherr and Romer (2019) established that being exposed to content that may lead to self-harm on social media has been linked to psychological damage, self-harm, and suicidal thoughts, specifically among vulnerable users.

According to Aydin, et al. (2021), teenagers are the most vulnerable to social media addiction and mental health issues. In a study conducted at a Chinese high school, Li et al. (2017) discovered that sleeplessness had a connection with social media addiction and depression. This highlights that sleeplessness can influence the relationship between social media and depression among teenagers. It could also mean that the role of sleep deprivation could be a potential mediating or moderating factor affecting how social media impacts mental health outcomes like depression and anxiety. Wang, et al. (2018) also reported a favourable connection between social media addiction and depression in a separate study done in China. Aydin, et al. (2021) explored how social media addiction affected depressed adults. They concluded that an increase in daily use of social media plays an essential part in technology addictions that may result in depression. The study also found that long-term social media users scored highly for social media addiction; social media had a significant role in their daily lives and harmed them. A similar body of research has revealed that high school learners regularly develop social media addictions, which may harm their mental health (Berryman, 2018; Cain, 2018). People's social skills and psychological, physical, and social well-being

might suffer from overuse of social media platforms. Furthermore, it could result in emotions of despair and loneliness (Ali, Balta, & Papadopoulos, 2022). Social media plays a significant part in the lives of most teenagers in the modern world; thus, it is crucial to investigate how it affects their psychological well-being.

While some may argue that social media has a detrimental effect on teenagers' mental well-being, studies like Anderson and Jiang (2018) have proved that social media has several benefits that stem from its ability to facilitate connections with others, particularly by making it easier to stay in touch with family and friends, as well as meet new people. Research has consistently shown that social connectedness and a sense of belonging are linked to a lower risk of anxiety and depression in teenagers (Pew Research Center, 2025). As a result, online communication and connection can provide social and emotional support, which can enhance mental health and reduce the risk of mental health issues such as anxiety, depression, and self-harm (Michikyan & Suárez-Orozco, 2016).

Furthermore, Zautra, Hall and Murray (2010) indicated that teenagers have an inherent desire to receive approval from others by presenting themselves in an idealised way, and social media allows them to express themselves and receive feedback from others. Additionally, social media provides access to information, support, and a means to learn, which can help protect adolescents from distress and foster resilience (Boyd, 2007). Moreover, Bailey, Matz, and Iyengar (2020) found that social media can act as a coping strategy during times of crises, helping to reduce the negative effects of stress and anxiety.

1.6. Definition of Key Concepts

1.6.1. **Social Media** refers to a set of online platforms that facilitate social interaction, information sharing, and community building among users (Algesheimer, Dholakia, & Herrmann, 2019). However, this study's definition of social media are any socialising digital platform, including popular websites and applications such as Facebook, X, Instagram, LinkedIn, YouTube, Pinterest, and Snapchat.

- 1.6.2. **Social Media Addiction:** Király, et al. (2020) refer to social media addiction as a platform that is characterised by an intense and compulsive use of social media, leading to significant distress, impairment in daily life, and failure to control the use of social media despite negative consequences. In this study, social media addiction means spending more than three hours on social media and experiencing the constant urge to visit social platforms uncontrollably.
- 1.6.3. **Mental Health:** The Centres for Disease Control and Prevention (2021) defined mental health as an individual's psychological well-being that includes emotional, cognitive, and social functioning. For this study, mental health refers to an unstable psychological state that causes an individual to experience issues such as depression, anxiety and low self-esteem.
- 1.6.4. **Teenager:** Brown, Lohr and Tracy (2020) defined a teenager as an individual between the ages of 13 and 19. In this study, a teenager refers to individuals who are in their adolescent phase, during which they may undergo a transition from childhood to adulthood, thereby experiencing various physical, social, emotional, and cognitive changes.

1.7. Purpose of the Study

According to Creswell and Poth (2018), the purpose of the study is the main reason why the study is being conducted. It guides and directs the research process, clarifies research questions, and helps to define the methodology. The purpose of this study is to investigate how an excessive amount of time spent on social media affects the learners' mental health at Sacred Heart Secondary School in KwaZulu-Natal, South Africa.

1.8. Research Objectives, Questions and Hypotheses

1.8.1. Research Questions

The following are the research questions of the study:

- ❖ What factors contribute to the frequency and intensity of social media use among teenagers, and how do they balance their need for social interaction with the potential drawbacks of excessive social media consumption?
- ❖ How does the excessive use of social media influence the development of mental health problems among learners at Sacred Heart Secondary School?
- ❖ What strategies can be implemented to reduce social media addiction among Sacred Heart Secondary School learners?

1.8.2. Research Objectives

The following are the research objectives of this study:

- ❖ To examine whether high school learners need to use social media more often and feel edgy or lonely when they cannot.
- ❖ To establish the effects of social media addiction on the mental health of learners at Sacred Heart Secondary School.
- ❖ To suggest possible strategies that can be used to reduce social media addiction among Sacred Heart Secondary School learners.

1.8.3. Research Hypotheses

This study further tests the following two hypotheses:

- ❖ **H1:** An excessive amount of time spent on social media results in an increase in mental health problems among high school learners.
- ❖ **H2:** There is a correlation between socio-economic factors, social media usage and mental health issues among high school learners.

1.9. Research Paradigm

Guba and Lincoln (2019) described a research paradigm as a set of assumptions, concepts, values, and practices that underpin a particular research approach. This includes the worldview, methodology, and theories that a researcher uses to investigate a phenomenon or problem being researched. Guba and Lincoln (2019) further asserted that a research paradigm inevitably reflects the researcher's views on the world they currently live in and the one they aspire to live in. It consists of the underlying ideas and concepts that guide a researcher's point of view, interpretation, and actions in relation to

the outside world. Over the years, research scholars and academics have developed several different research paradigms, such as positivist, interpretivist, critical, and pragmatic paradigms. Therefore, this study has employed a positivist paradigm.

The positivist paradigm upholds the notion that reality can be observed, captured, and comprehended (Mackenzie & Knipe, 2006). In addition, Fadhel (2002) suggested that the positivist paradigm could be chosen as the preferred worldview for research to evaluate observations of facts or measurably existing things. It makes predictions based on quantifiable outcomes and aims to explain events. The positivist paradigm is characterised by the beliefs that knowledge or truth is out there to be discovered by research, that both cause and effect may be distinguished and analytically separated. Secondly, the positivist paradigm is premised on the fact that research findings can be measured. Thirdly, that theories can be used to predict and regulate outcomes. Fourthly, that knowledge or truth is founded on the creation and testing of the hypotheses, and lastly, that fact-finding is pursued objectively (Neurath, 1973; Fadhel, 2002).

This type of paradigm was chosen in this study because it emphasises objective measurements and quantifiable data. In this study, the researcher used a survey questionnaire to measure the level of social media use and mental health-related issues, which allowed the researcher to observe the relationship between social media and mental health outcomes. This type of paradigm also supported the formation and testing of the hypothesis, where an excessive amount of time spent on social media was found to have an increase in mental health problems among high school teenage learners. Additionally, a correlation between social media usage and mental health illnesses among high school teenage learners was found. Moreover, this paradigm minimised researcher bias by using a structured self-administered questionnaire, ensuring that the findings of the study are based on observations rather than subjective interpretation.

1.10. Study Approach and Design

1.10.1 Research Approach

Tashakkori and Teddlie (2019) defined research approach as all the procedures or strategies utilised to conduct the study. Various research approaches, which could be used in a study, include quantitative, qualitative, and mixed research approaches. This study employs a quantitative research approach. According to Kothari (1990), quantitative research is predicated on quantifying quantity or amount. While Creswell (2008) stated that quantitative research involves examining the correlation between variables to test unbiased theories. These variables may often be monitored using equipment, allowing for the statistical analysis of numerical data. Most of the quantitative research studies include closed-ended questions. The researcher chose this approach because they are interested in understanding the relationship between social media and mental health problems, and the extent to which social media usage duration predicts mental health outcomes. This research method assisted in answering these questions as it was discovered that there is a strong relationship between social media and mental health-related issues like depression, anxiety and low self-esteem. By using this approach, it was also noted that the amount of time spent on social media does influence mental health problems.

1.10.2. Research Design

A research design is described as the process of setting guidelines for collecting and analysing data with an intention of maintaining a balance between procedural economy and the significance of the purpose of the study (Flick, 2020). In actuality, research design directs the research procedure and acts as a roadmap for data collection, measurement, and analysis. In addition, it provides a description of the process or the steps a researcher must follow, starting from drafting the research aims, objectives and hypotheses, and their operational implications all the way until data analysis at the end (Creswell, 2008). According to Kumar (2011), a research design's primary purpose is to describe how the researcher would arrive at conclusions about their study topics. A variety of research strategies are available for both quantitative and qualitative research approaches. Quantitative research consists of survey, experimental, quasi-experimental, correlational, and descriptive quantitative research designs.

The researcher selected the descriptive research design for this study. According to Khothari (1990), descriptive research design entails fact-finding in many forms, including surveys. The primary goal of descriptive research design is to characterise the existing condition. According to Flick (2020), the key feature of this methodology is that the researcher does not influence the variables. Descriptive research design employs all available survey techniques, including comparative and correlational ones. The main goal of descriptive research design is to characterise the traits, behaviour, and features of a certain group or phenomenon (Creswell, 2008).

The main reason for choosing this design method is that it fits well with the study because the researcher was able to describe the issue under investigation and comprehend the relationship between social media addiction and mental health illnesses. Additionally, it helps with acquiring a better knowledge of the intended audience and offers insightful data on the study issue. To achieve the research questions, objectives and assumptions, this design was applied in the study by determining the key study variables, which are the levels of social media usage, the types of platforms they visit the most, signs of addictive behaviour and indicators of mental health. The researcher also used a survey questionnaire to gather detailed information on how social media influences mental health problems. Moreover, the data were analysed using descriptive statistics like percentages to illustrate patterns and trends of how one variable influences the other.

1.11. Study Setting, Study Population, Sampling and Sample Size

1.11.1. Study Setting

According to Johnson and Christensen (2020), a study setting is a physical, social, or experimental environment where research is conducted. This study was conducted in a rural-based public high school called Sacred Heart Secondary School, which is located on the North Coast of the KwaZulu-Natal province, South Africa. The researcher chose this location because the school comprises many learners with smartphones, internet access, and who have access to different social media. Although the researcher is not aware of any mental health problems, particularly those caused by social media, they selected this setting to understand whether such problems exist due to social media.

This is important because it contributes to the existing body of knowledge in social sciences and adds new insights, especially since few studies have been conducted in an all-female setting in South Africa. The study setting was convenient and accommodating in terms of data collection; the learners were easy to engage with after obtaining approval from the school principal and with the assistance of one of the teachers. Despite being situated in a rural area, the school is well-maintained, provides good care for the learners, and has higher security compared to other schools in the area. This implies that the study setting is safe, organised and offers a stable and supportive atmosphere, which is advantageous for the study as the setting reduces external stressors related to safety and poor facilities, thereby allowing a greater focus on the relationship between social media and mental health.

1.11.2. Study Population

Johnson and Christensen (2020) defined the study population as individuals who can provide the researcher with the necessary data to uncover the answers to the research questions. The study population includes both the target population and the accessible population. The target population refers to the entire group of individuals who share similar conditions or characteristics that the researcher aims to investigate (Banerjee & Chaudhury, 2010). In contrast, the accessible population is the specific subset of this group that is geographically and temporarily available for recruiting the respondents (Asiamah, Mensah & Oteng-Abayie, 2017). This study's target population consists of teenage learners at SHSS, aged between 13 and 18, from grades 8 to 12. The total learner body at the school is 665. For data collection purposes, the accessible population in this study were female teenage learners at SHSS within this age range and grade levels who were available to participate.

1.11.3. Sampling

According to Creswell (2008), sampling is defined as a process of choosing a group of individuals from a large group, which is referred to as a population. This process aims to estimate or anticipate the prevalence of an unknown fact, event, or outcome in relation to the broader population (Lohr, 1999). Sampling is used in quantitative research to

conclude about the sample from which it was collected. The primary goal of sampling is to minimise the gap between the values acquired from the sample and those that are typical of the study population while keeping costs to a minimum. Probability sampling and non-probability sampling are the two sampling techniques utilised in research. Probability sampling is characterised by random sampling, stratification, systematic, and clustering sampling, and non-probability sampling is characterised by convenience, quota, self-selection, snowball, and purposive sampling.

Additionally, this study used the stratified sampling technique. Stratified sampling is a method used to get an adequate representation of a subsample (Ballin & Barcaroli, 2013). This sampling approach may include almost any variable: age, gender, religion, income level, or even preferences for particular social media. Instead of selecting a sample from the entire population indiscriminately, the researcher ensures that a suitable number of subjects are drawn from distinct homogeneous subsets, meaning groups that share similar traits (Babbie, 2010). The main reason for choosing this sampling type is that it is convenient for the study and helps to achieve the research objectives, as the stratified sample is likely to provide useful information.

1.11.4. Sample Size

The number of observations utilised to estimate a particular population is known as the sample (Kelley & Maxwell, 2019). The total population of learners at SHSS is 665. Due to time, money, and resource constraints, the researcher stratified 30% of the total population (200 learners) as the sample size. This allows for the study results to be easily generalised.

1.12. Inclusion and Exclusion Criteria

The inclusion and exclusion criteria in a research study are used to determine which respondents are eligible to participate in the study based on specific characteristics or factors. Inclusion criteria are the criteria that must be met for a respondent to be included in the study, while exclusion criteria are the criteria that would prevent a respondent from being included in the study (Patino & Ferreira, 2018). Therefore, the study's respondents must meet the following measures to be included in the sample:

Inclusion criteria:

- ❖ SHSS learners from Grade 8 to 12, aged between 13 and 18.
- ❖ Regular user of social media
- ❖ A learner who is not currently undergoing any form of mental health treatment
- ❖ Ability to comprehend and answer the questionnaire in English
- ❖ Willingness to participate in the study and provide informed consent

Exclusion criteria:

- ❖ A learner not from SHSS in Grades 8 to 12, aged between 13 and 18.
- ❖ A learner not using social media regularly
- ❖ A learner who is currently undergoing any form of mental health treatment
- ❖ A learner who is not willing to participate in the study or provide informed consent
- ❖ A learner who cannot comprehend and answer questionnaire items in English

1.13. Data Collection Method(s) and Procedures

Dawson (2002) defined data collection as the process that involves gathering information from all relevant sources to answer the research questions. In a quantitative study, a researcher can gather data using a variety of techniques, including surveys, observation, experiments, and document screening (Creswell, 2013). Data in this study have been collected using a self-administered questionnaire. Kumar (2011) describes a self-administered questionnaire as a form or group of forms that make up a questionnaire that has printed or typed questions in a certain order. A self-administered questionnaire can also be described as a set of questions that are designed explicitly to be completed by a respondent without an interviewer's assistance (or bias) (Roopa & Menta-Satya, 2012). One of the major characteristics of this data collection method is the anonymity of the respondent, which can result in more genuine or reliable replies (Williamson, 2002). This method is also known for allowing the respondents to access the survey questionnaire from anywhere with an internet connection (Burns & Grove, 2003). They are designed with clear and unbiased questions, organised logically, and include instructions for respondents to follow (Dillman et al., 2020). It is well recognised that this type of data collection is less costly than alternative methods. Additionally, they

take up less administrative work and may be sent in large quantities at once (Alreck & Settle, 2004; Babbie, 2008).

The researcher built a survey questionnaire using SurveyMonkey, a cloud-based online survey creation platform that offers capabilities for gathering, storing, publishing, and evaluating survey data (SurveyMonkey, 2022). The questionnaire included an introduction that goes into depth about the goals and significance of the study. In addition, the questionnaire consisted mostly of closed-ended questions and a few open-ended questions that allowed the respondents, where possible, to fully express their experiences with social media and mental health-related issues. Before the data collection process began, the researcher obtained all necessary approvals to conduct this study. Once the researcher was granted permission to proceed with data collection, they visited the school to get the learners', parents' and principal's consent before distributing the research questionnaire to the respective respondents. Overall, the respondents were guaranteed anonymity throughout the whole process of data collection and had the option of declining to take part in the study if they so choose. This ensured that their identities were not revealed or linked to their responses at any point during the data collection, thereby protecting their privacy and ensuring voluntary participation.

1.14. Data Analysis Method

Kumar (2011) defined data analysis as the process of gathering, modelling, and analysing or examining data using different methodologies and procedures. To analyse quantitative data, many different statistical techniques are used. The researcher uses the Statistical Package for Social Sciences (SPSS), version 3.0.0.0 (172) to code the responses or data gathered. SPSS is a Windows-based program that can be used to perform data entry and analysis and to create tables and graphs (Nasaiak & Axyaua, 2016). It can handle large amounts of data and can perform all the analyses covered in the text and much more (Nagaiyah & Ayyanar, 2016). The IBM SPSS software platform provides sophisticated statistical analysis. SPSS is advantageous to use because it is accessible to users of all levels due to its ease, adaptability, and scalability. It is

appropriate for projects or data of all sizes and degrees of complexity. Better judgment about the data can be made with the help of the SPSS tool.

1.15. Ensuring Rigour

According to Morse, Barrett, et al. (2002), establishing quality criteria is the process of verifying, assuring, and being certain. In a quantitative study, quality criteria are the procedures followed to gradually increase the likelihood of objectivity, reliability, and validity and, consequently, the rigour of the investigation (Claydon, 2015). Without rigour, research loses its value, turns into fiction, and becomes useless. A quantitative study that maintains rigour employs a variety of techniques, such as:

1.15.1. Validity

According to Kane (2020), the degree to which differences found by a measuring device accurately represent those being tested is known as validity. To ensure the validity of the results in this study, the researcher sought additional relevant data from respondents to support the conclusions. The questionnaire was created to enable respondents to fully share their experiences, and the information collected helped identify and address any potential gaps in its design, thereby enhancing the validity of the findings. Additionally, the validity of the results was assessed by comparing them with existing literature, which supported the findings and confirmed that the measures taken were both meaningful and accurate.

1.15.2. Reliability

Sürücü and Maslakç (2020) define reliability as the level of accuracy or precision in the measurements that a research instrument makes. Reliability in this study was ensured by making sure that the research procedures were maintained, particularly in data collection. The researcher also ensured that the stratified sample was diverse, accurately representing the population. Additionally, respondents' anonymity, privacy and confidentiality were protected to promote and encourage honest responses. Lastly, reliability was ensured through the use of a structured and standardised questionnaire, where all participants were asked the same set of questions under similar conditions.

1.15.3. Objectivity

A researcher must be objective and maintain their objectivity when conducting their research to avoid being swayed by their own emotions, beliefs, or biases. The interpretation of this study is based on the factual data that the researcher collected, and this was ensured by the researcher's attention to the facts and data gathered. Personal biases are not present in the study.

1.16. Ethical Considerations

The researcher is aware of the University of South Africa's policy on research and procedures for managing and avoiding plagiarism. The following are ethical considerations applied in this study:

1.16.1. Informed Consent

According to Branson (2018), informed consent is a complex concept that involves not only the provision of information but also the comprehension and voluntariness of an individual's decision-making process. Recent studies have emphasised the importance of informed consent in ensuring that individuals can make decisions that are in their best interests and that they are fully aware of the potential risks and benefits involved (Koh, Kim, & Lee, 2020). To obtain informed consent, the researcher explained the nature, purpose, benefits, risks, and alternatives of the study to the respondents. The researcher ensured that the information provided to the respondents was clear and easy to understand so that consent could be given freely, without coercion or undue pressure. Furthermore, the researcher needed to obtain parental consent for learners under 18. This was achieved by providing assent forms to the learners who were already stratified and under 18 years old, and who were willing to take part. Since it was not possible to reach all parents/guardians at the same time, the researcher found it practical to give the learners the assent forms along with an information sheet that explained the purpose of the research and the procedures involved, thereby allowing them to present these to their parents/guardians for their consent and approval.

1.16.2. Permission to Conduct Research

According to Cohen, Foulkes, and Shier (2017), permission to conduct research is a critical aspect of the research process that ensures ethical and responsible conduct of research. Brennan (2016) asserted that permission to conduct research involves obtaining approval from the relevant authorities before commencing a study. Before the data collection process began, the researcher was granted permission to conduct this study from the Unisa College of Human Sciences Research Committee (CREC) and the KZN Department of Education. Approval was further granted by the school principal, who submitted a formal request in the form of a permission letter to conduct the proposed study.

1.16.3. Voluntary Participation

According to Carpenter and Stryker (2018), voluntary participation refers to the willingness of individuals to engage in an activity or programme without being forced to do so. Kreuter, Brennan, and Clark (2017) established that voluntary participation is characterised by a sense of autonomy, meaning that individuals have the freedom to make their own choices and decisions about whether to participate. The researcher explained the purpose and significance of the research. According to Williamson (2002), respondents are more likely to participate voluntarily when they understand how their contributions can impact the research. The respondents were not pressured or forced to participate in the research, and the questions were formulated in a way that did not influence the respondents' decisions. Moreover, the respondents were allowed to withdraw their participation at any stage during the research process.

1.16.4. Privacy

According to Carter, Greenhalgh, Haines and Crichton (2018), privacy in research refers to the protection of individuals' personal and sensitive information from unauthorised access, use, and disclosure. The protection of privacy is particularly crucial in studies involving vulnerable populations, such as children, prisoners, or individuals with mental health conditions (Kohut, 2017). As noted by Harris (2020), privacy is not just a moral right but also a fundamental aspect of human dignity.

To ensure the respondents' privacy, the researcher obtained informed consent from research respondents. The researcher also ensured that all information was kept confidential by using the respondent's details only for research purposes and not sharing them with others unless necessary. Data are stored securely in a researcher's laptop using password-protected folders and secure servers. The study is also conducted ethically by following ethical guidelines and obtaining ethical clearance from all relevant bodies. Overall, the researcher communicated with respondents throughout the research process and informed them about any new developments or changes in the study.

1.16.5. Confidentiality

Schuler, Presser and Schuman (2018) define confidentiality in research as the principle of protecting the privacy and secrecy of research respondents' identities, personal information, and sensitive data. This involves ensuring that the confidentiality of respondents is maintained throughout the research process, from data collection to data analysis and reporting (Koh, Lee & Lee, 2017). This principle is essential in building trust with respondents and ensuring their willingness to participate in research.

The researcher explained the purpose of the research, the potential risks and benefits, and the measures taken to ensure confidentiality to the respondents. Access to the data collected is controlled by the researcher, and no third parties are used without a confidentiality agreement. After completing the research, the researcher will inform the respondents about the study's findings and reiterate the measures taken to maintain confidentiality.

1.16.6. Anonymity

According to Duffield and Spooner (2018), anonymity in research refers to the protection of research respondents' identities and personal information to ensure that their privacy is maintained throughout the research process. Anonymity in research is essential to prevent harm or exploitation of respondents, particularly when researching sensitive topics, vulnerable populations, or high-stakes issues (Dingwall, 2012).

To ensure anonymity, the researcher ensured that all data collected was confidential, and only the researcher had access to the data. The study also uses an online survey tool (SurveyMonkey) to allow respondents to complete surveys anonymously. Also, the researcher removed any identifying information from the data, such as names, contact information, or any other personal details that could reveal a respondent's identity.

1.16.7. The Right to Withdraw from the Study

According to Grady, Kim and Obarzanek (2015), the right to withdraw from a research study is a fundamental ethical principle that acknowledges the autonomy and agency of research respondents. This principle is grounded in the concept of informed consent, which requires that respondents are fully informed about the study's objectives, procedures, and potential risks before giving their consent. Wong, Jansen, and Bellenger (2017) state that the right is particularly important for vulnerable populations, such as children, prisoners, or individuals with mental health conditions, who may be more susceptible to exploitation or coercion.

The researcher ensured that respondents were fully informed about their right to withdraw at any time during the study. The respondents were provided with a simple and clear method to withdraw from the study if they wished to do so. Respondents' decision to withdraw from the study was respected, and their data were removed for future analysis. The respondents' decision to withdraw from the study did not adversely affect any treatment or care they received.

1.16.8. Harm and Risk

Terry, Mello and Koenig (2020) define harm and risk in research as the potential or actual negative consequences that individuals or groups may experience as a result of participating in a research study. Harm can take many forms, including physical harm, psychological distress, emotional trauma, and social or economic harm. Risk can also refer to the uncertainty or unpredictability of the outcomes of a research study, including the potential for unintended consequences or negative impact on respondents' well-being (Flory & Emanuel, 2004). The researcher obtained informed consent from respondents, who will be provided with all the necessary information regarding the

study's objectives, risks, benefits, and their rights. The researcher also got approval from the University of South Africa (UNISA) College Research Ethics Committee (CREC), which reviews the study's potential risks and benefits. After the research is done, respondents will be debriefed about the study results, and any harm caused will be addressed and mitigated.

The researcher also adhered to the principles of the Protection of Personal Information (POPI) Act. This was achieved by ensuring that the respondents' personal and sensitive information was handled with utmost care and confidentiality. This includes obtaining informed consent from each respondent and the respondent's parent/s or guardian/s, which was done in a way that is easy to understand and voluntary. The informed consent form outlined the purpose and scope of the study, as well as the measures that were taken to protect the respondents' privacy. Furthermore, respondents were informed of their right to withdraw from the study at any time. It is important to note that since the study is dealing with minors, the researcher must obtain permission from their parents or legal guardians of the respondents to ensure that they are protected and that their participation in the study is voluntary. Therefore, the researcher provided information to the parents or guardians of the respondents about the study, its purpose, procedures, and potential risks and benefits. Also, the researcher obtained written consent from the parents or guardians before involving their child in the study. Additionally, the researcher ensured that the parents or guardians understood the study's protocols and procedures, including any potential risks and benefits, before obtaining signatures from the parents or guardians.

1.17. Conclusion

This chapter established the foundational context for this dissertation's examination of how social media influences the well-being of teenagers, particularly at SHSS. The chapter additionally outlined the research problem under investigation, the theoretical framework guiding the study, the research methods used and provided a brief literature review to clarify key concepts such as social media addiction, mental health, and a teenager. It also highlighted the key research questions, objectives and the hypotheses that will be tested in the results. Overall, this chapter sheds light on the widespread

issue of social media addiction, supported by research highlighting its potential effects on mental health, underscoring the need for a deeper understanding of this complex relationship. The subsequent chapter discusses the literature review and theoretical framework that underpin the whole study.

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.0. Introduction

This chapter explores the existing literature and theoretical frameworks that guide the whole study. Through an in-depth review of relevant academic works and theoretical perspectives, this chapter aimed to provide a comprehensive understanding of the effects social media has on the overall teenagers' mental health. The chapter sets the stage for the empirical study that follows, offering a solid foundation upon which to build the research argument. The researcher also investigates key themes and concepts that are central to the research questions, drawing upon a variety of sources to build a robust theoretical framework. The literature review helps to situate the current study within the broader scholarly conversation, highlighting gaps in the existing research and pointing to areas in need of further investigation. Therefore, the following two theories and literature review topics are discussed.

2.1. Theoretical Framework

A theory plays a vital role in the research process; therefore, it is essential to examine the role of theory in shaping research methodologies, guiding data analysis, and informing conclusions. The following discussion delves into the significance and role of theory in research.

2.1.1. The Role of Theory in Research

Theory plays a crucial role in research as it provides a framework for understanding, analysing, and interpreting data. According to Creswell (2014), one of the key functions of a theory in research is to help researchers generate testable hypotheses. By drawing on established theoretical frameworks, a researcher can propose specific relationships between variables and make predictions about how these relationships will play out in empirical data. According to Babbie (2016), a theory also helps guide the research process by providing a road map for the development of hypotheses, research questions, and methodologies. Furthermore, a theory can also guide the selection of research methodologies and data collection techniques. In the context of this study,

theories can assist in offering a structured way to understand the complex relationships between social media and mental health and find solutions according to the study's results. A hypothesis can also be developed through a theory; for example, two hypotheses were developed in this study with the help of a Media Dependency theory. Furthermore, the results of this study were easily interpreted with the help of the selected theories, thereby informing strategies to mitigate the negative effects.

In this study, a comprehensive understanding of the phenomenon requires a solid theoretical foundation. Different theories, such as the media dependency theory and the psychodynamic theory, offer distinct perspectives on the relationship between social media use and teenagers' mental health. By combining these theories into this study's research design, the researcher developed a delicate approach to data collection. For instance, the survey questionnaire was used to measure the prevalence of social media addiction among teenagers. By aligning research methods with relevant theoretical frameworks, researchers can ensure that their findings are valid, reliable, and contribute to the advancement of knowledge (Miller, 2023). Recognising the importance of theory enabled the study to shed light on the complex relationships between social media use, mental health, and teenagers, ultimately informing effective interventions and prevention strategies. Therefore, the following discussions centre on the two theories that are utilised in this research, highlighting their significance and how they relate to the study's context.

2.1.2. The Media Dependency Theory

According to Ruggiero (2000), Media Dependency Theory was developed by Sandra Ball-Rokeach and Melvin DeFleur in 1976 to explain how and why individuals or groups come to rely on the media for information, entertainment, and connection to society. Dependency theory was defined by DeFleur and Ball-Rokeach (1976) as a connection between the audience's behaviour, media content, and society. Ruggiero and Gennaro (2020) claim that active social media users who use the media to meet their goals or needs will depend on it. The theory posits that as media becomes increasingly pervasive in society, individuals become more dependent on it for shaping their perceptions, attitudes, and behaviours (Ball-Rokeach & DeFleur, 2003). According to

DeFleur and Ball-Rokeach (1976), the degree of a person's media reliance depends on how much they think the media they choose is helping them achieve their goals. DeFleur and Ball-Rokeach (1989) divided these goals into three categories that encompass a wide spectrum of personal ambitions: (1) social and self-understanding (such as learning about ourselves and the outside world); (2) interaction and action orientation (such as choosing what to purchase, and getting advice on how to deal with breaking news or challenging situations, etc.), and (3) social and private activities (such as unwinding alone or going to the movies with close relatives or friends). Additionally, DeFleur and Ball-Rokeach established that a single medium may activate (and fulfil) many types of goals.

Media dependency theory helps scholars understand the complex relationships between media and audiences, as well as the implications of this dependency on society (Rosenstiel & Simon, 2008). The theory also suggests that individuals may develop a dependence on media due to the instant gratification and sense of control it provides, which can lead to feelings of anxiety, depression, and other negative emotional states (Ruggiero et al, 2020). According to the Media Dependency Theory, the degree to which a person needs or uses a specific kind of media determines how influential that medium is (DeFleur & Ball-Rokeach, 1976). Instead of claiming that media impacts are always strong or weak, dependency theory explains why media have strong effects in certain situations and weak ones in others. DeFleur and Ball-Rokeach, (1976) also stated that the media becomes more crucial to an individual as they become more dependent or reliant on it to meet their needs/expectations.

According to Kim and Lee (2021), people grow more reliant on media that fulfil their needs and expectations than on media that solely do so. In relation to the study, this may suggest that teenagers become more reliant on media that meet their needs and expectations, rather than tolerating media that only partially fulfil their desires, which can lead to a constant need for validation and attention, subsequently leading to feelings of anxiety, depression, and loneliness when these needs are not met.

Wangqu, Xue and Chen (2024) and Wainner (2018) have used the media dependency theory to explain how social media use can lead to addiction and damage to mental health. One-way scholars have explained the media dependency theory in relation to social media use, addiction, and mental health is by highlighting how individuals rely on social media for various needs and purposes. For instance, teenagers can use social media to stay connected with friends and family, sharing updates and photos about their daily lives. Social media is also a primary source of entertainment for teenagers, allowing them to watch videos, play games, and join online communities centred around their favourite TV shows, movies, music, and sports teams. Social media can also serve as a valuable tool for learning, skill development, and raising awareness. It offers access to a wide range of information, educational content, and online communities that can improve understanding of various topics. This theory also posits that individuals become dependent on social media when they rely on it for information, entertainment, social interaction, and validation (DeFleur & Ball-Rokeach, 1976). In the context of this study, this suggests that social media can act as the primary or preferred source for meeting these needs, and the greater the reliance on it, the more likely it is that they develop social media addiction, ultimately impacting their mental health.

Furthermore, a study conducted by Marino (2018) established that teenagers who are dependent on social media tend to experience higher levels of stress, anxiety, and depression. This dependency can also lead to a cycle of comparison and social comparison, where individuals constantly compare themselves to others on social media, which can negatively impact their self-esteem and mental well-being. Additionally, Woods and Scott (2016) have applied the media dependency theory to explain how teenagers may use social media as a coping mechanism for loneliness, social anxiety, and other mental health issues. For instance, a study conducted by Rains (2017) discovered that teenagers with higher levels of social anxiety tend to rely more on social media for social interaction and validation, which can further exacerbate their social anxiety and dependency on social media.

This theory is of importance in this study because it assisted in explaining how teenagers become psychologically dependent on social media, which leads to negative

impact on their mental health. It relates well to this study as it suggests that teenagers can become heavily reliant on social media for information, entertainment, and social interactions, leading to a sense of dependence on these outlets. When it comes to social media addiction in teenagers, this theory helps in explaining how their reliance on platforms such as Facebook, Instagram, WhatsApp, and TikTok can contribute to negative effects on their mental health. Teenagers who are addicted to social media may rely heavily on these platforms for validation, social interaction, and a self-esteem boost. This dependency can lead to feelings of anxiety, depression, and low self-worth when they do not receive the desired level of engagement or validation from their peers on social media. Additionally, spending excessive amounts of time on social media can lead to decreased face-to-face interactions, lack of physical activity, and poor sleep habits, all of which can have negative impacts on teenagers' mental health. Therefore, this theory assisted in explaining the teenagers' reliance on social media. This theory is used in this study to further understand why the teenagers' selected media has such an important influence on their everyday life.

2.1.2.1. The application of the Media Dependency Theory to the study

As previously explained in this study, the Media Dependency Theory suggests that individuals depend on media to fulfil their needs. In this study, the theory was applied by observing how most surveyed teenagers rely on social media as a primary source of connection and information. The findings showed that most respondents depend on social media, which led to negative impact on their mental health. The theory was further utilised to examine how the degree of dependency correlates with mental health issues. Furthermore, it was used to assess whether respondents who heavily rely on social media were more vulnerable to cyberbullying, which can also contribute to mental health problems. In addition, in rural areas, where traditional social activities or mental health resources are limited, individuals may depend heavily on social media. Therefore, the media dependency theory helped to explain how this reliance can contribute to mental health issues due to isolation and unrealistic comparisons on social media, ultimately leading to decreased self-esteem among the surveyed individuals. The theory was also used to explore whether social media dependence served as a

coping mechanism for teenagers, which in turn led to excessive social media usage and mental health challenges, as many respondents experienced anxiety when they could not access social media. Moreover, understanding the dependency on social media helped in identifying interventions that may be put into practice to reduce over-reliance and promote healthier social media use, thereby improving the teenagers' mental health.

2.1.3. The Psychodynamic Theory

The Psychodynamic Theory, also referred to as Psychoanalytic Theory, was developed by Sigmund Freud between 1890 and 1930 with the purpose to understand and explain human behaviour, emotions, and mental processes by exploring unconscious thoughts and feelings, childhood experiences, and the influence of internal conflicts and motivations (Frosh, 2012). This theory emphasises the role of the unconscious mind in shaping behaviour and personality and aims to help individuals gain insight into their innermost thoughts and desires to resolve internal conflicts and improve psychological well-being (Freud, 1930). Additionally, psychodynamic theory helps individuals develop self-awareness, self-understanding, and healthier relationships with others (Freud, 1930). The theory further suggests that individuals' thoughts, feelings, and behaviours are shaped by their unconscious mind, early childhood experiences, and relationships with others. In the context of social media addiction, psychodynamic theory highlights how teenagers may use social media as a coping mechanism to deal with underlying emotional issues, such as anxiety, depression, or feelings of loneliness. For instance, a teenager may use social media to escape from their problems or to seek validation and attention from others.

According to Bornstein (2023), the psychodynamic theory indicates that childhood experiences are crucial in forming our personalities. The psychodynamic theory also suggests that personality is characterised by subconscious psychological processes (such as hidden anxieties). Shedler (2019) further asserts that the key principle of the psychodynamic theory is that most psychological processes in humans take place unconsciously. In simple terms, the activities of the mind are presumed to be unconscious. In the context of this study, this suggests that some underlying,

unconscious psychological factors may contribute to addictive behaviours and mental health issues, even if teenagers are not consciously aware of these influences. This theory also assumes that nothing in our mental lives occurs accidentally (Blagov & Kolden, 2020). The psychodynamic theory further suggests that there are no truly random thoughts, feelings, beliefs, behaviours, or motives, as Freud (1890) believed that these arise from identifiable psychological processes. Furthermore, Freud (1890) believed that our actions are motivated by our thoughts and emotions. Therefore, people must become aware of and gain insight into their thoughts and emotions to comprehend and alter their behaviour.

Freud (1939) also described that a person's personality has three interacting parts: the ID, Ego, and Superego. According to Freud, the ID is a representation of the impulsive part of us based on unconscious drives. The ego is based on pleasure and involves satisfying our needs to get immediate gratification. The superego represents our morals, ethics, self-criticism, and standards. The ego is known to be a mediator between the id and the superego. It is regarded as a decision-maker and is used to reduce tension and anxiety (Mitchell & Black, 1995). In relation to this study, the ID can represent the teenager's distinctive desires and impulses, seeking immediate gratification and pleasure. Teenagers may be drawn to social media for the instant rewards it provides, such as likes, comments, and validation from their peers. This constant need for validation and gratification can lead to addictive behaviours, as teenagers may become reliant on social media for their self-esteem and happiness. The Ego may act as the rational and pragmatic part of the psyche, mediating between the desires of the ID and the moral constraints of the Superego. In the context of social media addiction, the Ego may struggle to balance the need for constant online engagement with other important aspects of a teenager's life, such as schoolwork, relationships, and self-care. This can lead to feelings of guilt, anxiety, and a sense of being overwhelmed by the demands of social media. The Superego represents our internalised moral standards and values, guiding us towards socially acceptable behaviours. In the case of social media addiction, the Superego may contribute to feelings of inadequacy, comparison, and self-criticism, as teenagers may constantly compare themselves to idealised versions of

their peers on social media, which can lead to a negative self-image and impact their mental health.

Most crucial, social media extend a person's social and psychological environment. Several social media platforms are available and stimulate a different aspect of a person's psychological well-being. For instance, platforms like Facebook, Instagram, and X can be ego-oriented because they appeal to how people want to show up in their social environment. People can present themselves broadly on these platforms since they are virtual communities. Studies by Hussain and Griffiths (2014) and Keles, McCrae and Grealish, (2019) have shown a close relationship between how people represent themselves on social media and their personalities. For instance, one can use X to communicate with familiar people or a large following, and the social repercussions will depend on that decision. Social media is a natural outgrowth of our compulsion to connect. Smartphone notifications may activate our dopamine system, which may harm our mental well-being, as individuals may feel pressured to constantly check and respond to notifications to stay connected and avoid missing out on important information or interactions. The immediate gratification associated with checking notifications can lead to addictive behaviours, where individuals may feel compelled to constantly check their devices for updates, leading to a cycle of dependence on social media for validation and self-worth. This suggests that the constant need for validation and social feedback can lead to an over-reliance on social media, causing teenagers to become hooked on the immediate gratification of likes, comments, and followers. Moreover, the constant bombardment of curated content can also lead to unrealistic expectations and low self-esteem in teenagers, worsening the mental health concerns that many teenagers already face.

This theory is also deemed relevant to this study because it provides insights into the unconscious mind and how it influences an individual's thoughts, feelings, and behaviours. The psychodynamic theory proclaims that unresolved childhood conflicts and experiences can influence an individual's behaviour and mental health later in life. Therefore, teenagers who have unresolved issues, such as low self-esteem, feelings of inadequacy, or difficulties forming relationships, may be more susceptible to developing

social media addiction to escape or cope with these unresolved issues. Furthermore, the psychodynamic theory emphasises the role of defense mechanisms, which are unconscious strategies individuals use to protect themselves from anxiety or uncomfortable feelings. Teenagers who are struggling with negative emotions or stressors may turn to social media to distract themselves or numb their emotions, leading to a cycle of addiction.

Additionally, the theory highlights the importance of attachment relationships in shaping an individual's emotional development. Individuals who have insecure attachment styles or who struggle with forming healthy relationships offline may be more likely to seek validation and connection through social media, leading to an increased risk of addiction and negative impacts on mental health. Teenagers may also use social media to fulfil unconscious needs for approval, validation, or connection, leading to excessive use and addiction that can negatively impact their mental health. By incorporating the principles of psychodynamic theory into this study, the researcher was able to gain a deeper understanding of the underlying psychological factors that contribute to the investigated phenomenon and develop more effective interventions to address and prevent the negative impacts on mental health.

2.1.3.1. The application of Psychodynamic Theory in the study

To enhance understanding and application of the psychodynamic theory in this study, the researcher investigated how unconscious desires and unresolved conflicts influenced teenagers' use of social media as a means of escapism. Using this theory, it was discovered that the teenagers surveyed used social media to fulfil unmet emotional needs or to manage internal conflicts such as low self-esteem. The theory also helped to determine whether teenagers used defense mechanisms, such as denial, to justify their excessive social media use and to cope with stress, anxiety, or depression. The findings revealed that most respondents were in denial about their social media use or lacked awareness of what constitutes such an addiction. Many believed they were not addicted and were not using social media to deal with mental health-related issues, despite over half experiencing the urge to constantly check their accounts, being unable

to sleep without doing so, and spending 2 to 3 hours daily on social media. Furthermore, the interpretation of some of the results was framed within the psychodynamic perspective by suggesting that excessive social media use may serve as unconscious emotional needs or as a defense against inner conflicts. Additionally, while the study was quantitative, the researcher added a few open-ended questions to deepen the understanding of how the surveyed population is psychologically affected by excessive social media use, thereby enriching the interpretation of the results.

2.2. The Review of Related Literature on Social Media and Mental Health

This study's literature review sought to explore the complex relationship between social media and mental health in teenagers. The following sub-sections begin by exploring the evolution of social media and its growing popularity among South African teenagers. It then explores the psychological effects linked to social media addiction, with a particular emphasis on its influence on anxiety and depression in this age group. Following that, the review considers the different factors that contribute to social media addiction among teenagers. Lastly, it explores the relationship between social media use and feelings of loneliness and isolation, highlighting the complex interaction between digital engagement and emotional well-being in South African teenagers. Most importantly, the review of this study was written in accordance with the study's objectives.

2.2.1. The Evolution of Social Media in the South African Context

In South Africa, social media has undergone a remarkable transformation since its inception in the late 1990s (Budree, Fietkiewicz, & Lins, 2019). Initially, platforms like Facebook, Twitter, and MySpace etc. were introduced to connect people and enable communication. However, as the country's internet penetration rate increased, social media became an essential part of daily life, with many South Africans using it to stay updated on current events, news, politics, and cultural happenings.

In the early 2000s, social media like Friendster and MySpace gained popularity among South Africans. However, their widespread adoption was hindered by the limited availability of the internet and connectivity problems, which restricted access to these

online spaces (Shirley, 2013). The fact that popular platforms like Friendster and MySpace were not widely adopted implies that many teenagers in South Africa did not have access to the internet or reliable connectivity, which was a necessary condition for using these platforms. The limited adoption of social media in South Africa during the early 2000s indicates that social media addiction was not a significant concern at that time (Ndlela & du Toit, 2014). This is because social media addiction typically requires regular and consistent access to social media (Pallesen & Griffiths, 2016), which was not possible for many young people in South Africa at that time.

During this period, social media use was not widely accessible to South Africans because many families had limited access to smartphones or computers, making it difficult to frequently check these platforms. Furthermore, platforms like Facebook, X, and others were just emerging in the early 2000s, so not everyone was familiar with or interested in them, especially since South Africa is a developing country where technology was still out of reach for most citizens. Additionally, a significant digital divide existed at that time, with people from poorer backgrounds, remote areas, or lacking education having little to no access to internet services (Gumede, 2003). Urban residents generally had better internet access, which restricted the widespread adoption of social media among young people from disadvantaged communities (Reece, 2008).

According to Bhanye, Shayamunda and Tavirai (2023), by around 2008, Facebook had risen to become one of the most popular social media platforms, and by 2010, it had gained widespread acceptance among teenagers. BusinessTech (2015) stated that at least 22% of the 12 million Facebook users in South Africa are youths aged between 13 and 18, suggesting that social media addiction was likely becoming a growing concern. The fact that 22% of teenagers were already using Facebook implies that social media was becoming an integral part of their daily lives. This increased exposure to social media, particularly Facebook, may have contributed to the development of social media addiction among teenagers around that time. The increased use of social media also likely led to a shift in the way teenagers spend their time, potentially replacing traditional face-to-face interactions, outdoor activities, and other forms of entertainment.

Furthermore, in the early 2010s, social media platforms like WhatsApp and Mxit also gained immense popularity in South Africa, with many people using them to stay in touch with friends and family. In addition, as mobile phone penetration rates increased, social media evolved to better suit the needs and preferences of African users (Paton, 2012). The widespread use of these platforms among South Africans, particularly for personal and social communication, implies that people are increasingly relying on social media to connect with others and manage their relationships (Moyo & Chikafa, 2021). As mobile phone penetration rates increased, social media adapted to the African context, catering to the local population's needs and preferences. This adaptation may have contributed to an even greater reliance on social media (Aker & Mbiti, 2020). Furthermore, the ease of access and the convenience of social media may have created a sense of dependency among users, making it difficult for them to disconnect or reduce their usage.

According to Ndlovu and Mthembu (2022), the availability of inexpensive mobile internet plans and the widespread use of smartphones resulted in a significant increase in social media activity among teenagers. Between 2011 and 2015, the global number of social media users reached two billion, with South Africa having 11.8 million active social media accounts and experiencing a 20% increase from 2014 (DataReportal, 2015). During this period, Instagram and Snapchat gained immense popularity among teenagers in South Africa. DataReportal (2015) indicated that 8% of all social media users in South Africa used Instagram, with 64% of teenagers on the platform, while 44% used Snapchat, making these two platforms among the most favoured by this age group. Furthermore, Instagram experienced the most significant growth in South Africa, increasing from 680,000 users in 2013 to 2.68 million in 2015 (Blue, 2019).

In 2018, social media platforms like TikTok, a short-form video-sharing platform, became extremely popular among teenagers in South Africa. According to a survey by the South African Social Media Landscape Report (2020), 71% of teenagers aged 13-19 used TikTok, while 63% used WhatsApp. These survey results indicate a concerning trend of social media addiction. The fact that 71% of teenagers aged 13-19 used TikTok implies that many young people were spending a significant amount of time engaging in

social media. The use of social media, specifically by teenagers, became a growing concern as it indicated that they were spending valuable time and attention on online interactions, which can potentially lead to negative effects on their mental and physical health, social skills, and academic performance.

In 2020, social media usage in South Africa experienced a notable growth, with a 10% increase compared to the pre-pandemic period. By 2021, the number of social media users had risen to 24 million, with platforms like Twitter and TikTok leading the way (Hootsuite, 2019). As of 2023, there are approximately 27 million active social media users in South Africa, equating to 42.8% of the total population (DataReportal, 2023). These statistics suggest that the use of social media has increased rapidly in South Africa, particularly during the pandemic period (Madziva, et al. 2022). The rapid growth of social media users, particularly among teenagers, may indicate a growing trend of social media addiction. As people spend more time on social media, they are more likely to develop an addiction to the constant stream of notifications, updates, and likes (Wickramasurendra, Jagoda, & Rathnayake, 2021). The fact that X and TikTok showed the fastest growth may be particularly concerning, as these platforms are often designed to be highly engaging and addictive (Botha, 2018). Furthermore, the increasing number of social media users may also contribute to the decline of face-to-face communication skills, potentially leading to social isolation and decreased mental health. Overall, these statistics indicate that social media addiction is an increasing issue in South Africa, highlighting the importance of raising awareness about the possible dangers of excessive social media use.

2.2.2. Excessive Use of Social Media and Teenagers' Mental Health

According to World Population Review (2023), among the 8 billion people in the world as of 2023, 5.24 billion are active social media users; of that, 26.7 million are from South Africa. Over 10% of the 26.7 million, i.e., 4.35 million, are teenagers from South Africa aged between 13 and 17. Social media has become increasingly common in individuals' lives and provides advantages for immediate human interaction (Latikka, et al., 2022). Several studies have discovered a close correlation between social media

use and negative effects on mental health illnesses, which may include depression, anxiety, suicidality, and loneliness. The Royal Society for Public Health (RSPH) (2017) claimed that there is a strong connection between social media usage and mental health issues, based on their research with approximately 1500 learners, aged between 14 and 24. This serves as evidence of the increasing concern surrounding social media and mental health within society, as demonstrated by numerous research studies cited above. Additionally, the research conducted by RSPH further confirms that greater social media usage can lead to mental health-related problems.

Furthermore, a study conducted by Uncapher, et al. (2017) revealed that regular social media use is connected with a lower ability to complete cognitive activities and mental effort. People with a problem to control their access to social media are more likely to suffer from poor mental health. Andreassen et al. (2017) once highlighted that social media addiction is associated with higher levels of stress, anxiety, and depression among teenagers. The constant need to check and engage with social media can lead to feelings of inadequacy, comparison, and fear of missing out, which can trigger or worsen symptoms of anxiety and depression. This is supported by another study conducted by Woods and Scott (2016), which discovered that heavy social media users reported higher levels of anxiety and depression compared to moderate users.

The Global Digital Report (2022) revealed that the average time teenagers spend on social media is estimated to be 6 hours 58 minutes per day, and an average of 2 hours 30 minutes on each social media site. This suggests that there is a significant level of engagement and dependency on these platforms. This also highlighted the pervasive nature of social media in people's daily lives, and the amount of time individuals dedicate to browsing, interacting, and consuming content on these platforms. Additionally, this may suggest that social media has become a primary source of entertainment, communication, and information for many individuals. Spending such a substantial amount of time on social media can have negative implications for individuals' mental health, productivity, relationships, and overall well-being. It may indicate a potential addiction or dependency on social media, which can lead to feelings of isolation, anxiety, and low self-esteem.

Additionally, research conducted by Oberst (2017) concluded that social media addiction was significantly related to higher levels of anxiety, depression, and psychological distress among teenagers. The study highlighted the role of social media in exacerbating feelings of loneliness, isolation, and negative self-perception, which are common risk factors for anxiety and depression. In addition, a meta-analysis by Kuss and Griffiths (2017) found a strong positive correlation between social media addiction and symptoms of anxiety and depression, suggesting that excessive use of social media can have a detrimental impact on mental health outcomes. A systematic review by Khan and Khan (2021) revealed that social media addiction negatively affects the user's mental health. Another study by Ayas and Horzum (2013) explored the relationship between internet addiction, self-esteem, depression and loneliness in high school learners. The study's results established that, while sadness and internet addiction had a substantial positive association, there was no relationship between self-esteem and internet addiction.

Twenge et al. (2018) observed a significant increase in anxiety and depression rates among teenagers, which coincided with the rise of social media and smartphone use. The study suggested that constant exposure to curated and idealised images on social media can contribute to feelings of loneliness, social comparison, and low self-esteem, which are known triggers for anxiety and depression. These findings are a clear indication that excessive use of social media may contribute to or exacerbate mental health issues such as anxiety, depression, and low self-esteem. They may also indicate that there needs to be more awareness and efforts to promote healthy social media usage and provide resources for individuals who may be struggling with their mental health because of their social media habits.

Most importantly, one of the latest articles published by the WHO (2025) alluded that 14.3% of 10–19-year-olds experience mental health conditions, yet these remain largely unrecognised and untreated, and these account for 15% of the global burden of disease in this age group. In addition, WHO (2025) established that depression, anxiety and behavioural disorders are among the leading causes of illness and disability among adolescents. Several studies, including Keles, McCrae, and Grealish (2019) and Lin,

Sidani, Shensa, Radovic, Miller, Colditz, Hoffman, Giles (2016) discovered a strong link between social media and mental health-related issues, specifically an increase in depression, anxiety, and low self-esteem. Furthermore, Arendt, Scherr and Romer (2019) established that being exposed to content that may lead to self-harm on social media has been linked to psychological damage, self-harm, and suicidal thoughts, specifically among vulnerable users.

Social media had a detrimental impact on the lives of teenagers, as evidenced by tragic incidents such as the case of a 10-year-old girl in the United States (US) who committed suicide after a video of her fighting went viral on Musical.ly, and a 13-year-old girl who hanged herself after receiving abusive online messages. Similarly, in South Africa, instances of suicide have been linked to the harmful effects of social media, such as a student at Mbilwi Secondary School who took her own life following relentless bullying and humiliation that was shared on social media (IOL, 2021). Several news reports by IOL (2022), TimesLive (2023) and News24 (2022) published that a student in Gqeberha attempted suicide after a humiliating photo was posted online, while a teenager in Durban and another in Orange Farm tragically ended their lives after sustained cyberbullying. In the context of this study, these incidents demonstrate the negative impact of social media on mental health among young people in the continent and South Africa. This series of tragic events highlights the serious and devastating impact that cyberbullying and the negative effects social media can have on vulnerable young people. They suggest that there is a pressing need for better education on online behaviour and the potential consequences of cyberbullying. It also underscores the importance of creating safer online environments and implementing stronger measures to address and prevent cyberbullying. Additionally, they highlight the importance of mental health support for young people who may be experiencing online harassment and abuse due to dependence on social media. It is a sobering reminder of the harmful consequences of online bullying and the urgent need for intervention to prevent further tragedies for the victims.

2.2.3. Factors Contributing to Social Media Addiction among Teenagers

According to Tyagi and Soni (2019), social media has become an integral part of our daily lives, with platforms such as Facebook, Instagram, Snapchat, TikTok, X, and WhatsApp providing users with opportunities to connect with friends and family, share content, and stay informed. However, Keles, McCrae, and Grealish (2019) asserted that the excessive use of social media is associated with negative consequences, including social isolation, increased anxiety, and addiction. While DeAndrea and Taddeo (2017) once indicated that one of the key factors contributing to social media addiction is the instant gratification and reinforcement that it provides. Horzum (2013) established that social media are designed to be highly addictive, using features such as likes, comments, and shares to reward users for their engagement. This constant feedback can create a cycle of reinforcement, leading individuals to use social media compulsively in search of validation and approval from their peers (Andreassen et al., 2016). For high school learners, who are often in a crucial stage of development where social connections are paramount, the desire for validation can drive excessive use of social media.

According to Lwin, Li and Ang (2012), teenagers primarily engage in online activities for entertainment, social interaction, and seeking information. Kristianto's (2017) research identified six key factors influencing teenagers' attitudes towards social networking sites, including ease of use, flow experience, technology self-efficacy, perceived usefulness, risk, and technology accessibility, with technology experience, perceived parent influence, and perceived peer influence playing a lesser role. While Al-Menayes (2015) found a positive correlation between the amount of time spent on social media, satisfaction levels, and all aspects of social media, suggesting that individuals showing signs of addiction may also experience higher satisfaction with the platform's features.

Furthermore, Andreassen, Pallesen and Griffiths (2016) established that social media is deemed as physically and psychologically addictive, leading to a host of allegations and problems. A study by Grealish (2019) postulated that the global issue of mental health problems and suicides linked to excessive social media use has also been highlighted, with instances such as a 16-year-old girl in Malaysia taking her own life after conducting

a poll on Instagram. This underscores the serious consequences of social media addiction among young people in today's society.

Another factor contributing to social media addiction among teenagers is the Fear of Missing Out (FOMO). The fear of missing out refers to the anxiety that individuals experience when they believe that others are experiencing something enjoyable without them (Gupta & Sharma, 2019). Social media exacerbates FOMO by constantly displaying curated and idealised versions of other people's lives, leading individuals to compare themselves and feel inadequate (Przybylski et al., 2013). In connection to this study, FOMO can contribute to social media addiction among teenagers by creating an intense anxiety and pressure to constantly be connected and up-to-date with what others are doing. Teenagers who are already vulnerable to feelings of insecurity and self-doubt may be particularly susceptible to FOMO, and thus spend excessive time on social media in an effort to stay connected and avoid missing out. The constant comparison with others on social media can also negatively impact a teenager's mental health, leading to feelings of inadequacy, low self-esteem, and increased stress. This can further fuel the cycle of social media addiction as teenagers may turn to these platforms for validation and reassurance. Additionally, the addictive nature of social media can make it difficult for teenagers to disconnect and take breaks, which may lead to a lack of sleep, increased isolation, and potential mood disorders.

Most importantly, Savci and Aysan (2016) found that loneliness is a major factor contributing to increased social media use. Tyagi and Soni (2019) identified addiction to smartphones, detachment from real relationships, preoccupation with virtual communication, and tension within the family as key factors influencing social media addiction. They also noted that female gender, single status, anxiety, and depression are positively correlated with addictive social media use, while age is inversely related. Oktan (2015) further supported this, showing that individuals with limited interpersonal relationships may turn to social media for support, leading to addictive behaviour due to a lack of psychological resilience.

Furthermore, the social pressure to conform to peers' behaviours and expectations can contribute to social media addiction among teenagers. Social media amplifies social

norms and trends, making it difficult for individuals to resist the pressure to conform and follow the crowd (Cialdini, 2007). Teenagers are especially susceptible to peer influence, as they often seek acceptance and approval from their peers. This desire for social acceptance can lead to increased social media use in an effort to fit in and be part of the group (Gupta & Sharma, 2019). Social media can amplify peer pressure and social influence, as teenagers may feel pressured to conform to online trends, behaviours, and expectations (Andreassen et al., 2017). This pressure to fit in and be accepted can fuel addictive behaviours, as teenagers may feel compelled to maintain a certain online presence to uphold their social status. The instant gratification and reward mechanism of social media can trigger the release of dopamine in the brain, leading to feelings of pleasure and satisfaction. The dopamine feedback loop can reinforce addictive behaviours, as teenagers may seek out the positive feelings associated with social media engagement. In a nutshell, social media addiction can have a significant impact on teenagers' mental health, leading to a variety of negative consequences. Guardians, educators, and mental health professionals need to be aware of these factors and offer support and guidance to help teenagers navigate their online lives in a healthy and balanced way.

2.2.4. The Relationship between Social Media Use and Feelings of Loneliness and Isolation among Teenagers

Social media has become an integral part of the daily lives of teenagers, providing a platform for communication and social interaction. However, there is growing concern about the impact of social media use on the mental health and well-being of teenagers, particularly in relation to feelings of loneliness and isolation. Studies have explored the relationship between social media use and feelings of loneliness and isolation among teenagers. For example, a study by Primack et al. (2017) found that high levels of social media use were significantly associated with increased feelings of loneliness and social isolation among teenagers.

Numerous studies, including Seidler et al. (2022) have shown a significant link between social media use and feelings of loneliness, suggesting that the choice of platform plays a crucial role in determining the level of loneliness experienced by individuals. To gain a

deeper understanding of how social media platforms like Facebook, X, and Instagram specifically affect the emotions of loneliness and isolation in teenagers, it is essential to examine each platform individually. This is because each platform has its unique characteristics, features, and user experiences that can influence the emotional well-being of teenagers. Here are some examples:

2.2.4.1. Facebook

Facebook refers to a versatile social media platform that allows users, who sign up for free profiles, to connect with friends and people they know online (Soukup, 2018). Facebook has several unique features that set it apart from other social media. For example, its "News Feed" feature allows users to see updates from their friends and pages they have liked in a single feed, while its "Groups" feature allows users to join groups based on shared interests or affiliations. It also offers a range of advertising options, including targeted ads, sponsored content and video ads (Phillips, 2007).

Research conducted by Hall, Dominguez and Mihailova (2022) suggests that using Facebook is associated with an increase in feelings of isolation, although other factors can also play a role in this relationship. Seidler et. al. (2022) discovered that excessive Facebook use is linked to higher levels of loneliness, particularly among female users who live alone. The study also highlighted that spending too much time on Facebook can worsen feelings of loneliness, especially for women. A survey by Smith, Leonis, and Anandavalli (2021) showed that Facebook can contribute to increased loneliness, with the degree of impact varying depending on the individual and their level of addiction to the site. In the context of this study, these findings suggest that teenagers on Facebook may be experiencing heightened loneliness due to their usage, which could be exacerbated by addictive behaviour and potentially have negative effects on their mental health and well-being.

Furthermore, Primack et al. (2017) conducted a study that revealed a correlation between increased usage of social media among young adults and increased feelings of social isolation. Another study by Shakya and Christakis (2017) found that passive use of Facebook, such as scrolling through the News Feed without engaging with

others, was associated with declines in subjective well-being, including feelings of loneliness and isolation. The study could imply that being exposed to social media without actively participating in it can lead to feelings of loneliness and isolation. This is because passive use of social media may not provide the same level of social interaction and connection as actively engaging with others on the platform. While Facebook can help individuals stay connected with others, excessive use can contribute to feelings of loneliness and isolation, especially among teenagers. It is important for parents and educators to promote healthy social media habits and teach teenagers to engage in more meaningful social interactions outside of the digital world.

2.2.4.2. X (Twitter)

Previously called Twitter, X is a microblogging social media platform that enables users to post messages known as "tweets" (Murthy, 2024). X offers a variety of features, including a character limit (280 characters), which encourages users to share concise, bite-sized updates, hashtags (#) to categorise and make tweets discoverable (Alshaye, Tasir & Jumaat, 2023). X is also known for its real-time updates, making it a popular platform for news, events, and conversations (Murthy, 2018).

There is a growing body of research examining the relationship between social media use, specifically X, and feelings of loneliness and isolation among teenagers. A study by Verduyn et al. (2015) established that teenagers who spent more time on X reported higher levels of loneliness and social isolation, and factors such as constant comparison to others, FOMO, and cyberbullying were cited as one of the problems contributing to these negative effects. Additionally, Frison and Eggermont (2016) revealed that teenagers who used X to seek social support reported feeling more connected to others and less lonely, while those who used X primarily for self-promotion or validation reported feeling more isolated and disconnected. These studies suggest that the impact of X on teenagers' social well-being is complex and context dependent. While excessive X use can contribute to feelings of loneliness and social isolation due to constant comparison to others, fear of missing out, and cyberbullying, using X as a means to seek social support can have a positive effect on reducing loneliness and increasing feelings of connection. Additionally, the motivation behind using X appears to play a

significant role, as using it primarily for self-promotion or validation can lead to feelings of isolation and disconnection.

Furthermore, Ye, Ho, and Zerbe (2021) asserted that users who have a high level of loneliness before using social media reduce their loneliness by using X to seek emotional support. X users can more actively present themselves on the platform than Facebook users (Ye, Ho, & Zerbe, 2021). Pop, Iorga, and Iurco (2022) have suggested that X primarily focuses on sharing text-based content and that using the platform may not foster a strong sense of intimacy in users' social connections. A study comparing X and Instagram users discovered that while X did not effectively reduce users' feelings of loneliness, Instagram did show greater success in alleviating loneliness among its users (Youssef, 2022). It is important to note that the relationship between X use and feelings of loneliness and isolation among teenagers is complex and multifaceted. The presence of supportive and positive interactions on X can mitigate feelings of loneliness, while negative interactions can exacerbate them. Furthermore, individual differences, such as personality traits and offline social support, can also influence how teenagers experience X use in relation to their feelings of loneliness and isolation.

2.2.4.3. Instagram

According to Ortega (2023), Instagram is a leading image based social media platform. Instagram has some key features that make it unique and different from other social media, including visual content, built-in filters and editing tools, and reels. Despite the fact that Instagram is an image-based sharing platform, a study by Ye, Ho, and Zerbe (2021) concluded that it is more effective than other social media platforms in reducing users' feelings of loneliness. Social media platforms like Twitter and Facebook primarily use text, while Instagram allows users to share images, fostering a sense of intimacy and potentially reducing feelings of loneliness (Nowland, Necka, & Cacioppo, 2018). Additionally, a study by Nowland, Necka, and Cacioppo (2018) revealed that although Instagram was the most used platform among learners, particularly female learners, users struggled to form meaningful social connections on the platform, which contributed to feelings of isolation.

Furthermore, Primack et al. (2017) discovered that higher levels of social media use, including Instagram, were associated with increased feelings of social isolation. Their study further suggested that social media platforms may contribute to a decrease in face-to-face social interactions and a sense of disconnectedness among teenagers. Additionally, Kross (2013) asserted that excessive use of social media, including Instagram, can lead to feelings of loneliness and depression. Twenge et al. (2018) also discovered a correlation between the rise of social media use, including Instagram, and the increase in loneliness and depression among teenagers and suggested that the constant comparison with others on social media can lead to a sense of isolation and loneliness among teenagers.

In contrast, there are also studies that suggest a more nuanced relationship between social media use and feelings of loneliness. Wang et al. (2018) found that while heavy social media use was associated with increased loneliness among teenagers, moderate use of social media was linked to decreased feelings of loneliness. This suggests that the impact of social media on feelings of loneliness and isolation may depend on the quantity and quality of online interactions. Furthermore, Oh et al. (2014) established that the type of social media use also plays a role in influencing feelings of loneliness among teenagers. However, it is worth noting that not all studies have found a clear link between social media use and feelings of loneliness among teenagers. Others have argued that social media can also provide a sense of connection and belonging for individuals, particularly those who may feel isolated in real life.

2.2.4.4. WhatsApp

Mursidi and Murdani (2018) described WhatsApp as a real-time messaging app that enables users to send files, messages, videos, and photos. Although WhatsApp is an instant messaging platform, it possesses distinctive features such as the contact recognition system, verification process, and sending of messages, which are all linked to a registered mobile number (Afnibar, 2020). Users can engage in conversations through the chat interface, and could copy, delete, forward or turn on the disappearance of messages feature. Images sent can also be forwarded to others. Additionally, WhatsApp allows users to send voice messages and share their location. The app

further offers a group chat feature, enabling users to gather multiple contacts to form a group conversation (Narti, 2017).

Despite these features, WhatsApp has been associated with several adverse effects on mental health. For instance, Wambua, Muriithi, and Ikpe (2022) found a significant correlation between teenagers' WhatsApp usage and their psychological well-being, indicating that changes in WhatsApp use could predict changes in mental health. According to Pew Research Centre (2025), while most teenagers feel more connected to friends through social media, about 20% believe that social media like WhatsApp, Facebook etc. have negatively impacted their mental health, and an increasing number think social media harms their age group. Furthermore, O'Reilly, Dogra, and Reilly (2018) identified that teenagers perceive social media as a threat to mental well-being, highlighting three main themes including its potential to contribute to mood and anxiety disorders, its role as a platform for cyberbullying, and the perception that social media use can be addictive. These imply that while social media like WhatsApp may enhance feelings of connectedness among teenagers, most are aware and concerned about the negative effects on their well-being. Such themes identified not only highlight the potential risk associated with social media but also underscore the need for awareness to lessen these effects.

Although research has linked social media platforms like WhatsApp to mental health problems, O'Reilly, et al. (2019) argued that, despite the challenges and risks associated with using social media such as WhatsApp, it can serve as an effective tool for educating and engaging adolescents to promote mental well-being. Moreover, Liu, et al. (2024) found that moderate social media use can enhance social interactions and emotional expression, which may positively impact mental health. The researchers also added that support from family and school environments was identified as crucial in reducing the adverse effects of social media on children's mental health. In essence, this suggests that not all social media use is harmful; moderation and a supportive environment can help protect and even promote teenagers' mental health.

2.3. Conclusion

This chapter detailed theories that guided this study, which are the media dependency theory and the psychodynamic theory. The chapter further focused on the review of the existing literature on social media addiction and its relationship to mental health issues in teenagers. The findings of this review have highlighted the complex nature of social media addiction, with various factors contributing to its development. Specifically, the literature suggests that social media addiction is linked to increased symptoms of anxiety, depression, and loneliness in teenagers, as well as decreased self-esteem and sleep quality. Furthermore, the review has identified several key factors that may increase the risk of social media addiction in teenagers, including FOMO. These findings underscore the importance of addressing social media addiction in teenagers as a critical component of promoting positive mental health outcomes. The next chapter builds on these findings by presenting the research design and methodology of the study.

CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.0. Introduction

This chapter presents the research design and methodology that were employed to collect, analyse, and interpret the data necessary to answer the research questions and objectives, which are stated in Chapter One of the study. It provides a detailed description of the research design, the population and sample, data collection methods, data analysis techniques, and ethical considerations that guided the study. It also serves as the foundation for ensuring the validity, objectivity and reliability of the research findings, as it outlines the systematic approach taken to ensure the rigour and credibility of the study. The chapter provides an insight into the processes and methods used to investigate this study's research problem and address the research objectives. Furthermore, the data analysis process is described, and the strategy for enhancing trustworthiness is provided. The research design and methodology chosen both focused on finding accountable answers to the research questions.

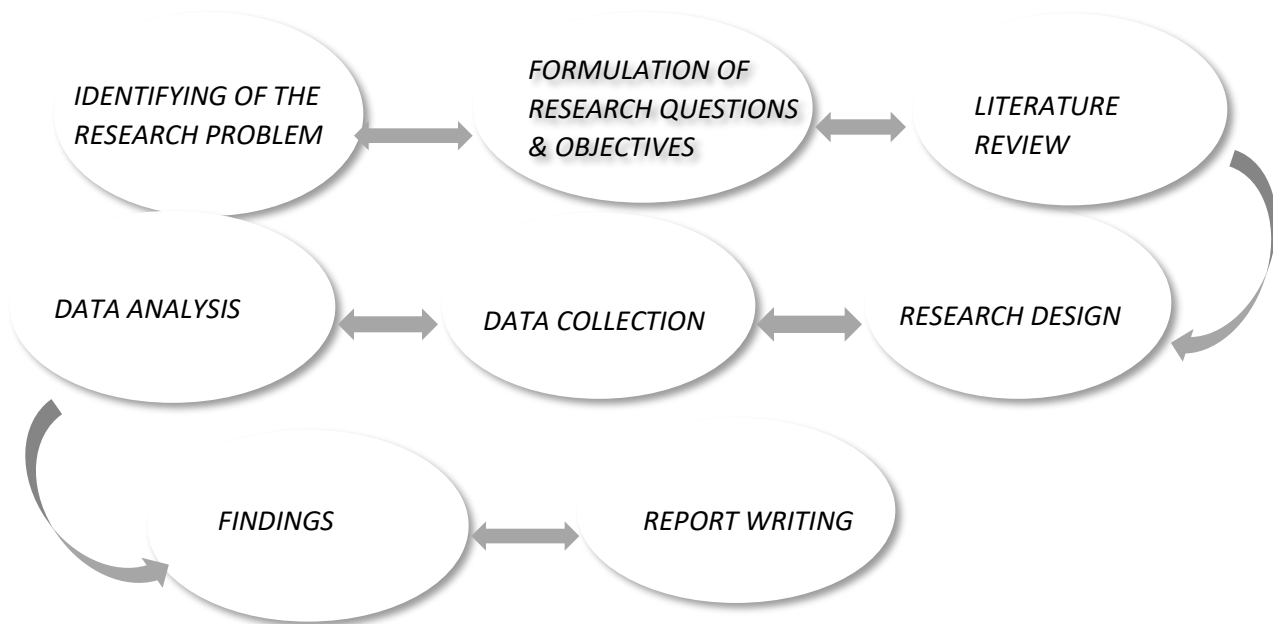


Figure 3.1. A pictorial representation of the research process

Figure 3.1 provides a visual representation of the step-by-step methodology used in the research process. It illustrates stages such as defining the research problem, formulating research questions and objectives, reviewing existing literature, selecting suitable research methods, collecting and analysing data, presenting findings, and concluding with the report writing based on the results. The figure allows the reader to clarify the complex procedures and highlights the logical flow from start to finish.

3.1. Research Paradigm

According to Guba and Lincoln (2019) research paradigm refers to a set of assumptions, concepts, values, and practices that underpin a particular research approach. It includes the worldview, methodology, and theories that a researcher uses to investigate a phenomenon or problem. Research paradigms provide a framework for understanding and interpreting research findings, and they guide researchers in designing and conducting their research projects (Mackenzie & Knipe, 2006). Additionally, Guba and Lincoln (2019) asserted that a research paradigm inevitably reflects the researcher's views on the world they currently live in and the one they aspire to live in. It consists of the underlying ideas and concepts that guide a researcher's point of view, interpretation, and actions in relation to the outside world. Over the past decades, research scholars and academics have developed different research paradigms, such as positivist, interpretivist, critical, and pragmatic paradigms. However, for this study, the positivist paradigm was used to gain insights into the respondents' worldview.

According to Crotty (1998), the positivist paradigm upholds the notion that reality can be observed, captured, and comprehended. The paradigm makes predictions based on quantifiable outcomes and aims to explain events. The positivist paradigm is characterised by the following beliefs: firstly, that knowledge or truth is out there to be discovered by research. Secondly, both cause and effect may be distinguished and analytically separated. Thirdly, that research findings can be measured. Fourthly, that theories can be used to predict and regulate outcomes. Fifthly, that knowledge or truth is found on the creation and testing of the hypotheses, and lastly, that fact-finding is pursued objectively (Neurath, 1973; Fadhel, 2002). In relation to this study, this means

that the underlying truth about the effects of social media on the mental health of teenagers can be discovered through research. It implies that the study could use this paradigm to identify the cause-and-effect relationship between social media use and mental health issues, such as whether social media contributes to heightened anxiety and depression among teenagers and measure these effects accurately. Moreover, the paradigm shows that the hypothesis about social media's influence can be objectively tested, with results based on the evidence that can predict and explain mental health outcomes.

Furthermore, to gain a deeper understanding of the impact of social media on teenage mental health, the researcher selected the Positivist paradigm, which emphasises empirical and objective data collection. This approach facilitated the collection of structured data through surveys, allowing the researcher to quantify variables such as time spent on social media, frequency of social media visits, and mental health indicators. As a result, trends and correlations were easily identified and analysed, making the data analysis process more efficient. Furthermore, the positivist paradigm enabled the researcher to formulate a testable hypothesis, linking social media use to mental health. This hypothesis not only contributed to the scientific understanding of the effects of social media on the mental health of teenagers but also informed future studies, providing valuable insights into mitigating potential adverse effects on teenage mental health. Additionally, positivist research relies on methods that can be repeated and validated by other studies. This is crucial for this study as establishing consistent findings across different settings enhances the credibility and reliability of the research.

3.2. Research Methodology

According to Tashakkori and Teddlie (2019), research methodology refers to the systematic process used by researchers to collect, analyse, interpret, and evaluate data to answer the research questions or address a specific problem. It encompasses various techniques and procedures that help guide researchers in conducting high-quality and reliable research. Murthy and Bhojanna (2009) defined a research methodology as the blueprint of a research or study. Similarly, Rajasekar (2013) defines research methodology as a systematic way to solve a problem.

Furthermore, research methodology plays a crucial role in any study by offering a structured research approach, which enhances the reliability and validity of the results (Wimmer & Dominick, 2011). This has contributed to the credibility and trustworthiness of the findings by ensuring that the collected data are both accurate and impartial. As noted by Creswell (2017), research methodology acts as a framework for conducting a study, guiding researchers in selecting data collection methods, analysis techniques, and the overall research design. It aids researchers in identifying the most suitable methods and techniques aligned with their research questions and goals.

3.2.1. Research Approach

According to Creswell (2014), a research approach is a strategy or plan of action that a researcher uses to conduct a study or investigate a particular research question. It outlines the methods, procedures, and techniques used to collect and analyse data to address the research problem. Several different research approaches can be used, depending on the nature of the research question and the objectives of the study, which include quantitative research, qualitative research, and mixed-methods research. This study employed a quantitative approach to address the research questions and objectives of the study.

3.2.1.1 Quantitative Research Approach

Quantitative research methods involve the collection and analysis of numerical data to quantify and understand patterns, trends, and relationships within a population or sample (Neuman, 2014). This type of research typically involves the use of surveys, experiments, and statistical analysis to generate data that can be measured and analysed objectively. According to Wimmer and Dominick (2011), quantitative research utilises various data collection techniques, including telephone surveys, mail surveys, and online surveys. In this approach, the questions are fixed or uniform, meaning that every respondent is asked the same set of questions without the possibility of follow-up questions (Dillman, Smyth, & Christian, 2014). Wimmer and Dominick (2011) also noted that quantitative research focuses on measuring quantity or amount, where a process is articulated or represented through one or more numerical values. Some of the characteristics of quantitative research are:

- 1) It involves numbers, utilises statistics or mathematical methods, and is quantitative rather than descriptive.
- 2) It is a repetitive process in which evidence is assessed.
- 3) The findings are frequently displayed using tables and graphs.
- 4) It provides definitive conclusions.
- 5) It explores what, where, and when of the decision-making process.

Furthermore, quantitative research offers several key benefits. One significant advantage is the use of numerical data that allows for more precise reporting of results. Through data collection and analysis, quantitative methods ensure a high degree of accuracy and objectivity (Abuhamda, Ismail & Bsharat, 2021). By minimising subjectivity and bias and employing standardised protocols and measurements, researchers can enhance the reliability and validity of their results. This improves the credibility of the findings, thus facilitating the study's replication and enabling independent researcher verification of findings. Another notable benefit of the quantitative approach is its ability to generalise results to broader populations. Researchers can conclude larger populations from a subset of data by using representative samples and statistical methods (Kothari, 2004). This ability to generalise enables researchers to make inferences that extend beyond their specific studies, thereby deepening understanding of the topic.

Furthermore, quantitative methods support rigorous statistical analyses and hypothesis testing, allowing researchers to evaluate relationships between variables and examine theoretical claims (Creswell & Poth, 2018). Especially in large-scale research projects, quantitative methods offer the potential for automation and scalability. Advances in technology and data analytics have enabled researchers to effectively collect, manage, and analyse large amounts of quantitative data (Kumar, 2014). Tools for automated data collection, such as online surveys, simplify research processes and reduce the resources and time required for data collection. Moreover, quantitative methods allow researchers to simultaneously study multiple variables or larger populations, improving their accuracy and thoroughness when addressing complex research questions.

The study utilised a quantitative approach to allow the researcher to make significant conclusions about the relationship between social media addiction and mental health issues in teenagers. Through the quantitative approach, it was discovered that using social media excessively leads to mental health challenges such as sleeplessness, anxiety and feelings of nervousness all the time. This method enabled a larger sample size, which is beneficial for generalising the results to a wider teenage population, thereby improving the study's external validity. Also, this approach helped identify various factors that contribute to social media addiction and its impact on the mental well-being of teenagers. In addition, quantitative methods are known for being more efficient in terms of time and cost, as they involve collecting data through surveys and standardised tools. This characteristic was also applied in this study as it used an online survey questionnaire, making it easier to quickly gather and analyse data from a significant number of respondents promptly, while saving time. Moreover, the quantitative approach allowed for comparisons with other studies, enhancing the understanding of social media addiction and its effects on teenagers' mental health. It also helped the researcher identify specific risk factors and demographic groups that are more vulnerable to social media addiction, aiding in the assessment of its prevalence and severity among teenagers, ultimately providing crucial insights for developing intervention and prevention strategies.

3.2.2. Research Design

According to Fraenkel, Wallen and Hyun (2014), research design is a plan or structure that outlines how the research has been conducted. It includes methods, procedures, techniques, and strategies for collecting and analysing data. Johnson and Christensen (2020) described research design as the process of setting guidelines for collecting and analysing data with the intention of maintaining a balance between procedural economy and the significance of the purpose of the study. In actuality, the research design is the conceptual framework that directs the research procedures and acts as a roadmap for data collection, measurement, and analysis. Creswell (2008) stated that a research design's primary purpose is to describe how the researcher would arrive at conclusions about their study topics. There are several types of research designs, including descriptive research design, correlational research design, experimental research

design, and exploratory research design (Kothari, 1990). However, for this study, a descriptive design was used.

3.2.2.1 Descriptive research design

According to Babbie (2013), descriptive research design describes or documents characteristics, behaviours, opinions, or perceptions of a population or phenomenon. Babbie (2021) further suggested that descriptive design involves observing and measuring variables without manipulating them, to gather information and draw conclusions about the subject of study (Babbie, 2021). A descriptive survey attempts to describe or document current conditions or attitudes, that is, to explain what exists now (Burns, 2000). As Hassan and Al-Shaikh (2022) indicated, descriptive research is designed to provide a picture of a situation as it naturally happens. It may be used to justify current practice and make judgments, and to develop theories. According to Kothari (1990), the key feature of this methodology is that the researcher does not influence the variables. He further stated that one common method used in descriptive research is surveys and questionnaires, which are used to collect data from a sample of respondents to gain insights into their attitudes, behaviours, or characteristics.

Kothari (1990) asserted that this research design offers numerous benefits, including investigating problems in realistic settings. The design allows for the easy collection of extensive data from a diverse group of individuals. Such a design gives a thorough overview of a phenomenon, allowing a researcher to capture a wide range of variables and their relationships without manipulating them (Bryman, 2023). This is particularly useful for understanding complex behaviours and contexts in natural settings. According to Fowler (2002), surveys enable researchers to investigate multiple variables such as demographic and lifestyle information, attitudes, motives, and intentions, and to apply various statistical methods for data analysis. Additionally, descriptive research helps identify patterns, trends, and correlations in data, yielding valuable insights that can guide future research or interventions (Frankfort-Nachmias & Nachmias, 2008). The approach is also relatively cost-effective and easier to implement compared to experimental designs, as it typically uses existing data or simple observational methods (Burns, 2000). Ultimately, its emphasis on understanding 'what' rather than the 'why'

provides researchers with a strong basis for understanding diverse subjects without limitations of experimental control.

The choice of this research design was driven by its capacity to facilitate thorough information gathering concerning the investigated relationship between excessive social media use and mental health challenges among teenagers. In this study, this approach proved effective in comprehensively exploring various elements of social media use, such as usage frequency, platforms engaged with, and the psychological effects experienced by teenagers. The design also enabled data collection in real-world settings, making it particularly suitable for this investigation. By obtaining authentic data, the researcher was able to gain valuable insights into the actual behaviours and experiences of teenagers concerning social media usage. Additionally, this method assisted the researcher in identifying recurring patterns of behaviour, such as excessive usage, signs of addiction, and the impact on mental health. The researcher was also able to determine the correlation between social media consumption and mental health outcomes, as well as the impact of external factors on this relationship. Overall, the approach served as a foundation for gaining insights that inform future research on social media addiction among teenagers. It provided a thorough understanding of the study's problem, simplifying the identification of areas requiring further investigation, such as the development of interventions or strategies to mitigate the effects of social media addiction on mental health.

3.3. Study Setting and Study Population

3.3.1. Study Setting

According to Johnson and Christensen (2020), a study setting is a physical, social, or experimental environment where research has been conducted. This study was conducted in a rural-based public high school called Sacred Heart Secondary School, which is located on the North Coast of the KwaZulu-Natal province, South Africa. The researcher chose this location/setting because the school comprises many learners with smartphones and internet access, and who have access to different social media. Although the researcher is not aware of any mental health problems, particularly those caused by social media, they selected this setting to understand whether such problems

exist due to social media. This is important because it contributes to the existing body of knowledge in social sciences and adds new insights, especially since few studies have been conducted in an all-female setting. The study setting was convenient and accommodating in terms of data collection; the learners were easy to engage with after obtaining approval from the school principal and with the assistance of one of the teachers. Despite being situated in a rural area, the school is well-maintained, provides good care for the learners, and has higher security compared to other schools in the area. This indicated that the study setting was safe, organised and offered a stable and supportive atmosphere, which is advantageous for the study as the setting reduces external stressors related to safety and poor facilities, thereby allowing a greater focus on the relationship between social media and mental health.

3.3.2. Study Population

Johnson and Christensen (2020) defined the study population as individuals who can provide the researcher with the necessary data to uncover the answers to the research questions. The study population included both the target population and the accessible population. The target population refers to the entire group of individuals who share similar conditions or characteristics that the researcher aims to investigate (Banerjee & Chaudhury, 2010). In contrast, the accessible population is the specific subset of this group that is geographically and temporarily available for recruiting the respondents (Asiamah, Mensah & Oteng-Abayie, 2017). This study's target population consisted of teenage learners at SHSS, aged between 13 and 18 years old, from grades 8 to 12. The total learner body at the school is 665 learners. For data collection purposes, the accessible population in this study were black female teenage learners at SHSS within this age range (13 – 18) and grade levels (8 – 12) who were available to participate.

In preparation to meet the potential respondents, the researcher first created information sheets that offered a detailed explanation of the study, along with consent forms for learners aged 18 and above and assent forms for those under 18. These documents were printed and kept securely by the researcher. Additionally, an online survey questionnaire was developed to collect feedback from participating learners once their consent was obtained. Hard copies of the self-administered questionnaire

were also printed as a backup in case of technical issues, such as internet connectivity. After receiving approval from the UNISA Research Ethics Committee (CREC) to proceed with data collection, the researcher visited the school to interact with the study's population.

The researcher had already been in communication with the school principal to arrange possible dates for their visit, considering it was exam period and most learners, especially the grade 12s, were writing examinations. Upon arriving at the school, the researcher was greeted by security personnel, who then guided them to the administration building. The principal was occupied with back-to-back meetings and was unavailable for an in-person interaction; however, they permitted the researcher to proceed with data collection, with the assistance of one of the teachers serving as an overseer and witness. The researcher was only given a break time to engage with the learners, to avoid disrupting ongoing classes. This posed as a challenge, as it limited the depth and scope of the discussions between the learners and the researcher. Additionally, another challenge encountered was that some learners faced connectivity issues when completing the online questionnaire. Fortunately, printed survey forms were prepared to address this and other related challenges in gathering feedback from the learners. Overall, the data collection process went relatively smoothly, with its ups and downs effectively managed, making the process quick and not overly time-consuming.

3.4. Sampling Procedures, Sample Size, Inclusion and Exclusion Criteria

3.4.1. Sampling Technique

According to Kelley and Maxwell (2019), sampling in research is defined as the process of selecting a subset of individuals or units from a larger population to participate in a study. Babbie (2021) indicated that this subset, known as the sample, is representative of the population and enables researchers to make inferences about the larger group based on the data collected from the sample. In addition, Creswell (2008) defined sampling as a process of choosing a group of individuals from a large group, which is referred to as a population, to estimate or anticipate the prevalence of an unknown fact, event, or outcome in relation to the broader population.

This research employed a stratified sampling technique. Stratified sampling is a method used to get an adequate representation of a subsample (Ballin & Barcaroli, 2013). This sampling approach may include almost any variable: age, gender, religion, income level, or even preferences for particular social media (Lohr, 1999). Instead of selecting a sample from the entire population indiscriminately, the researcher ensures that a suitable number of subjects are drawn from distinct homogeneous subsets, meaning groups that share similar traits. According to Babbie (2010), stratified sampling guarantees the accurate representation of the stratification variables, which in turn improves the representation of related variables. Taken as a whole, a stratified sample is likely to be more representative of several variables compared to a simple random sample. The researcher recognised that most teenagers heavily rely on social media for various aspects of their lives. To investigate this relationship, the researcher divided the teenage population into different age groups and measured each individual's level of social media dependence. This categorisation allowed for a detailed analysis of how varying degrees of social media reliance might influence mental health outcomes among teenagers. Before selecting respondents, the population was also stratified based on education levels, gender, and whether they were already experiencing mental health issues. Ultimately, it was found that 30% (200 learners) met the criteria for the study, with 17% of that group agreeing to participate. The remaining 66 (33%) potential respondents declined to take part, and 21 (10.5%) learners who initially agreed later decided to withdraw from the study.

Sampling of the respondents was as follows:

- 1) The researcher requested the help of the teacher assigned to be an overseer to help organise the population into groups.
- 2) The respondents were grouped based on their knowledge level of social media and willingness to participate.
- 3) Possible respondents were selected after the researcher pre-selected respondents.
- 4) The research project was explained to the chosen respondents, and they were invited to decide if they wished to participate in the study.

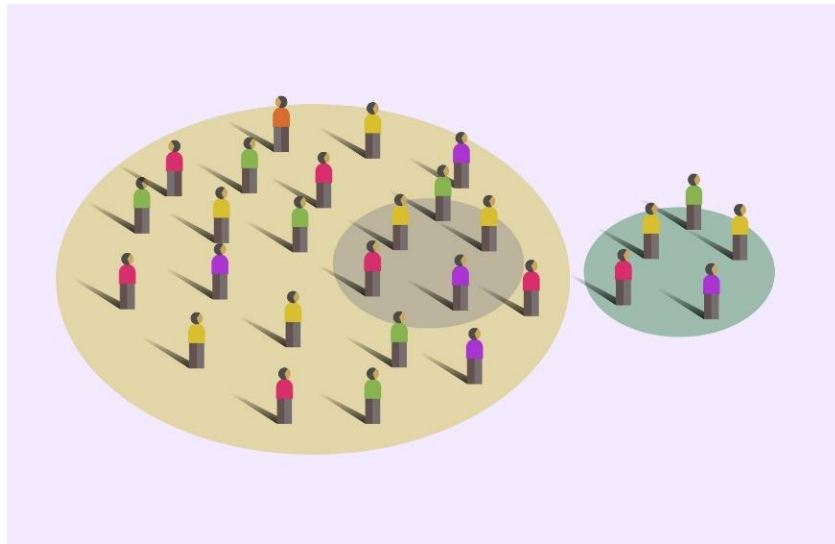


Figure 3.2. An overview of how a population is stratified

Stratified sampling offers several benefits, particularly in enhancing research accuracy and reliability. By dividing a population into homogeneous subgroups based on specific characteristics, such as demographics or behaviours, researchers can capture the variability within each group more effectively (Lynn, 2019). This method allowed for thorough comparisons and analysis between different subgroups, which helped reduce biases like voluntary response bias. As a result, the risk of over- or under-representing certain population segments is minimised, leading to more accurate conclusions (Babbie, 2010). Stratified sampling also enables researchers to draw conclusions that apply to the broader population, as it considers the diversity of characteristics and perspectives across different subgroups. By analysing data within each subgroup, researchers could identify unique trends, preferences, and behaviours. Furthermore, this method facilitated efficient resource allocation by targeting data collection efforts towards the most relevant subgroups within the population. Overall, stratified sampling is a valuable approach for ensuring the reliability and generalisability of research results.

The selected sampling method aided the researcher in choosing respondents who effectively represent the broader population. The technique proved to be very convenient for the study and contributed to achieving the research objectives by pinpointing specific trends in social media usage and its mental health implications

across various strata, which helped in developing targeted interventions or preventive strategies for different segments of the teenage population. Additionally, this sampling approach yielded valuable insights from the respondents. By stratifying the sample, the researcher ensured that the individuals recruited were most appropriate for the study based on established criteria related to social media addiction and mental health. This resulted in more accurate and meaningful data that provided significant insights into the relationship between social media use and mental health. This also assisted in minimising harm to vulnerable groups, such as those respondents struggling with social media addiction, thus making sure that respondents are well informed and supported throughout the research process. In addition, this method of sampling assisted the researcher/ study in selecting respondents from diverse grade levels or demographics to compare the effects of social media addiction on mental health across different populations. Moreover, the researcher was able to identify potential risk factors and protective factors (to be discussed in the next chapter) that may influence the relationship between social media use and mental health.

3.4.2. Sample Size

Kelley and Maxwell (2019) defined a sample size in research as the number of observations or individuals included in a study. It represents a subset of the population that is selected to participate in the research to draw conclusions and make inferences about the broader population. The potential respondents for this study were 200 of 665 learners from grades 8 to 12.

The researcher used the Slovin's formula to calculate the sample size, where n = sample size; N = population size, and e = margin of error. With a population size of 665, a confidence level of 95% and a margin of error of 5% (0.05), the following sample was determined:

$$n = \frac{N}{1 + Ne^2}$$
$$n = \frac{665}{1 + 665 \times 0.05^2}$$

$$n = \frac{665}{1 + 665 \times 0.0025}$$

$$n = \frac{665}{1 + 1.6625}$$

$$n = \frac{665}{1 + 2.6625}$$

$$n = 249.76 \text{ (rounded off to the nearest 100 = 200)}$$

However, due to some potential respondents (87 in total) not willing to participate and some withdrawing from the study, the total sample size decreased to 113.

Determining an appropriate sample size is one of the most controversial aspects of sampling. Wimmer and Dominick (2011) indicated that the necessary sample size for a study is influenced by at least one or more of the following seven factors: type of project, objective of the project, complexity of the project, acceptable margin of error, time constraints, financial constraints, and previous research in the field. In this study, respondents were categorised into four distinct groups: full-time learners from grades 8 to 12, regular users of social media, individuals willing to engage in the study and provide informed consent, and learners who do not have any diagnosed mental health conditions.

This approach was a practical and feasible way to study the respondents and the relationship between social media addiction and mental health in learners. The total number of respondents was able to represent the whole population and assisted in conducting the study more efficiently and cost-effectively compared to studying the entire population. Working with a minimal sample size allowed the researcher to simplify the data collection process and allowed for a more in-depth investigation into the nuances of social media addiction and its effects on mental health in learners at SHSS.

3.4.3. Inclusion and Exclusion Criteria

The inclusion and exclusion criteria in a research study are used to determine which respondents are eligible to participate in the study based on specific characteristics or factors. Inclusion criteria are the criteria that must be met for a respondent to be

included in the study, while exclusion criteria are the criteria that would prevent a respondent from being included in the study (Patino & Ferreira, 2018). Therefore, the study's respondents must meet the following measures to be included in the sample:

Inclusion criteria:

- ❖ SHSS learners from Grades 8 to 12, aged between 13 and 18.
- ❖ Regular user of social media
- ❖ A learner who is not currently undergoing any form of mental health treatment
- ❖ Ability to comprehend and answer the questionnaire in English
- ❖ Willingness to participate in the study and provide informed consent

Exclusion criteria:

- ❖ A learner not from SHSS in Grades 8 to 12, aged between 13 and 18.
- ❖ A learner not using social media regularly
- ❖ A learner who is currently undergoing any form of mental health treatment
- ❖ A learner who is not willing to participate in the study or provide informed consent
- ❖ A learner who cannot comprehend and answer questionnaire items in English

3.5. Data Collection Methods and Procedure

Dawson (2002) explained that data collection involves gathering information from all pertinent sources. Babbie (2010) defined data collection methods in research as ways in which data is gathered or collected for the purpose of conducting research. Various methods can be used to collect data, some of which include surveys, interviews, observations, experiments, secondary data analysis, document analysis, and social media analysis. The researcher deemed it fit to select a self-administered survey questionnaire with both open-ended and a few closed-ended questions to collect data for this study (See Appendix A).

3.5.1 A Self-Administered Survey Questionnaire

According to Kumar (2011), a self-administered questionnaire is a tool that ensures the anonymity of respondents, leading to more authentic and reliable responses. Dillman, Smyth and Christian (2020) defined a self-administered questionnaire as a type of

survey that is completed by respondents without the assistance of an interviewer. This type of data collection method is known to be cost-effective and ideal for collecting quantitative data, requiring less administrative work and allowing for mass distribution (Kristensen & Madsen, 2021). Self-administered questionnaires can have higher response rates compared to other methods of data collection, as respondents are more likely to complete the questionnaire independently.

3.5.1.1 Characteristics of Self-Administered Survey Questionnaire

Kumar (2011) indicated that self-administered survey questionnaires are characterised by their convenience, cost-effectiveness, and ease of distribution. Fowler (2013) postulated that this method of data collection is designed explicitly to be completed by a respondent without the help of the investigator or bias. Respondents can access these surveys from anywhere with an internet connection. Self-administered questionnaires are designed with clear and unbiased questions, organised logically, and include instructions for respondents to follow (Dillman et al., 2020). The online format often enhances anonymity, encouraging respondents to provide more candid answers, particularly on sensitive topics. Additionally, the design of these questionnaires typically incorporates user-friendly interfaces, engaging layouts, and adaptive question flows to maintain respondent interest.

3.5.1.2 The Advantages of Using a Self-administered Questionnaire

Self-administered online survey questionnaires serve as a crucial tool for data collection in quantitative research. They are well-suited for reaching a broad geographic audience, addressing sensitive issues, and require fewer resources compared to other data collection methods (Kristensen & Madsen, 2021). They can be delivered electronically, which can maximise the scalability and speed of data collection while reducing costs. Another key advantage is that there is no interviewer bias, which allows respondents to maintain their anonymity and privacy, encouraging them to provide honest feedback (Burns & Grove, 2003). This method of data collection offers convenience to respondents, as they do not have to complete the questionnaire immediately, which can improve the participation rate and validity of the results, as respondents can reflect on each question at their own pace. According to Creswell (2013), the lack of direct

interaction between researchers and respondents minimises bias, as researchers cannot influence the answers provided. Additionally, the absence of the researcher can help respondents feel more comfortable, making them more likely to share unique and unconventional responses.

3.5.2 Data Collection Procedure through a Self-administered Questionnaire

Data collection procedures are the techniques used to gather and collect data from various sources, such as surveys, interviews, observations, and experiments. The purpose of data collection procedures is to obtain accurate and reliable data that can be used to answer research questions, test hypotheses, and make informed decisions (Neuman, 2014).

The data collection process for this research was brief and efficient. The questionnaire was developed using SurveyMonkey, an online survey tool that facilitates the creation and management of professional surveys. SurveyMonkey provides various features and advantages, such as the ability to design custom surveys with different question formats, distribute surveys via email, social media, or links, and analyse results with data visualisation and filtering options. Furthermore, it can connect with other tools and platforms, allowing users to gather and analyse data from various sources. The questionnaire consisted of five sections, such as demographic information, social media use, social media addiction, impact of social media on mental health, perceived impact of social media use on mental health and an optional question that allowed for additional information to be collected, such as respondents' views on social media addiction. The survey included mostly closed-ended questions, along with a limited number of open-ended ones to capture in-depth information from the respondents. As noted by Krosnick and Presser (2020), closed-ended questions are easier to administer and analyse, enabling respondents to complete more questions in a shorter time frame, while open-ended questions include an opportunity for the investigator to gain additional information.

Furthermore, the questionnaire was written exclusively in English to ensure accessibility to the investigated population. Focusing on one language simplified the data collection process and eliminated the need for translation efforts that would've been time-

consuming and resource-intensive. It was also designed to ensure that each respondent is able to understand and respond to all questions, which were solely based on the study. Additionally, the format provided privacy and confidentiality, allowing respondents to share their thoughts openly without concerns about being identified. The survey was set to be completed in between 15 and 20 minutes.

Before recruiting potential respondents, the study and its procedures were outlined to the principal, with necessary approvals obtained from different authorities to conduct the research. The principal subsequently signed a letter permitting the study to take place on her premises and with her learners (see Appendix C). Assistance from the principal and a teacher as a witness was needed to help engage the teenage learners. After categorising the population and identifying potential respondents, the researcher proceeded to explain the study, including its risks and benefits, and emphasised that participation was voluntary, allowing individuals the option to withdraw at any time. The anonymity of respondents and the prioritisation of their privacy and confidentiality were also assured. In the process of explaining the study, respondents received information sheets that outlined the research details. They were encouraged to ask questions or voice any concerns, which the researcher ensured were addressed. Once both the researcher and respondents were content with the information provided, the respondents were allowed to decide on their participation and to obtain consent from their parents. They were also asked for permission to share their phone numbers to facilitate the distribution of questionnaire links once consent was granted. A total of 200 consent forms and youth assent forms were printed and distributed among the learners participating in the research.

Primarily, the data collection process was initially planned to be conducted using SurveyMonkey, a cloud-based platform that allows users to create, distribute, and analyse online surveys through their cell phones with an internet connection. However, because many learners faced network problems, the researcher decided to manually distribute 200 paper questionnaires to potential respondents instead. Respondents were given time to seek consent from their parents if they were under 18, as well as sufficient time to complete the questionnaire. After two days, the researcher returned to the

school to collect the completed questionnaires along with other documents needed for data analysis.

3.6. Data Analysis Method

Data analysis aims to arrange, structure, and derive insights from information. It begins once the data has been gathered. The researcher employed validity, reliability, and objectivity to set aside her preconceived notions about the phenomenon being studied.

Field and Morse (1996) identify intellectual processes that play a role in data analysis:

- ❖ **Comprehending:** The investigator aims to gain insight into the situation. When comprehension is achieved, the researcher then creates a detailed description of the phenomenon being examined. Saturation occurs when no additional data can be incorporated.
- ❖ **Synthesising:** This process entails analysing the data and putting the pieces together. It allows the researcher to identify common patterns related to the phenomenon. The researcher then formulates broad observations about the phenomenon and its respondents.
- ❖ **Theorising:** This refers to the organised categorisation of data. The researcher explores different interpretations of the phenomenon to assess how they relate to the evidence gathered.

In this study, these processes are particularly important when analysing the collected data. For instance, understanding the data enables the researcher to gain deeper insights into teenagers' experiences with social media, as well as how addiction develops and impacts mental health. When the data is thoroughly understood, relevant information can be effectively captured, reducing the risk of missing key insights. This process also helps the researcher to recognise common patterns, such as significant correlations, which contribute to broader observations about the relationships involved. Furthermore, identifying these patterns allows the researcher to formulate coherent explanations, aiding in the development of meaningful interpretations and informing potential interventions.

Various statistical methods are employed to analyse quantitative data. This research utilises the Statistical Package for Social Sciences (SPSS) for examining the collected responses. The SPSS software, version 3.0.0.0 (172), offered advanced statistical analysis, making it beneficial for this study due to its user-friendliness, flexibility, and ability to scale. Additionally, its suitability is highlighted by its capacity to manage projects or datasets of any size and complexity.

To analyse the data collected through SPSS, the researcher first generated an Excel spreadsheet with all the responses from the questionnaire. This spreadsheet was then imported into the SPSS software, where variables such as social media addiction, mental health scores, age, and grade level were defined. The software was also used to generate descriptive statistics, including frequency distributions for variables like excessive social media use and mental health indicators, to identify potential correlations from the data. Additionally, tables and graphs were created to visualise the data distributions. Furthermore, a correlation analysis was done to explore the relationship between social media use and mental health scores, aiming to test and validate the study's hypothesis. The regression analysis, which involves examining the relationship between a dependent variable and one or more independent variables, was used to assess how effectively excessive social media use predicts mental health outcomes while controlling for other variables. Moreover, output tables, charts, and graphs were used to interpret and report findings.

3.7. Research Quality Criteria for Quantitative Study

3.7.1. Validity

According to Kane (2020), the degree to which differences found by a measuring device accurately represent those being tested is known as validity. The validity of research results refers to the extent to which the results accurately reflect the real-world phenomenon or phenomenon being studied (Sürücü & Maslakç, 2020). In other words, it's a measure of how well the study captures the true nature of the phenomenon.

To ensure the validity of the study, the researcher actively sought additional relevant data to support the findings and conclusions drawn from the measuring instrument. The

research questions were carefully crafted to align with the study's objectives and the insights gained from the literature review, ensuring that they accurately represent the aspects of social media addiction and mental health that respondents should be knowledgeable about. Content validity was further ensured by maintaining consistency in administering the questionnaires, with the researcher personally distributing them to respondents. To facilitate clarity and ease of understanding, the questions were written in simple language, and clear instructions were provided. Questions were rephrased for individuals who needed clarity, and alternative response options were added to closed-ended questions to provide meaningful data for analysis.

3.7.2. Reliability

In a quantitative study, reliability is crucial to ensure accurate measurement. Reliability in research refers to the level of consistency and precision in the measurements made by a research instrument (Tavakol & Dennick, 2021). In this study, reliability was ensured through the use of a structured and standardised questionnaire, where all participants were asked the same set of questions under similar conditions. This method assisted in ensuring that the results are consistent and reliable. Although the test-retest method was initially considered, it was not applied in this study as data was collected at a single point in time, making it not possible to calculate the stability of responses over time using the Pearson's correlation coefficient.

In addition, data collector bias was minimised by having the researcher administer the questionnaires and maintain standardised conditions, such as exhibiting similar personal attributes to all respondents. Furthermore, the researcher ensured that data collection and analysis methods were reliable and valid by using appropriate techniques to minimise errors. Moreover, the researcher was mindful of potential biases and threats to validity, such as researcher bias, measurement error, and sampling errors, and necessary steps were taken to minimise these risks.

3.7.3. Objectivity

Objectivity in research is defined as the ability to maintain a neutral and impartial perspective, unaffected by personal biases, emotions, or interests (Frambach, van der Vleuten, & Durning, 2013). It is essential in research as it ensures that the findings are

based on the data and not influenced by individual perspectives or agendas. The analysis of this study is based on the factual data that the researcher collected, and this was ensured by the researcher's attention to the facts and data gathered. Personal biases were not present in the study when collecting data and were avoided during data analysis. Also, when analysing data, meanings were formulated from extracted statements and then clustered into themes to provide a full meaning of the experience.

3.8. Ethical Considerations

This relates to moral standards that the researcher should consider in all research methods in all stages of the research design. Following the approval from the University of South Africa to carry out this research, an ethics clearance letter was received from the Unisa College of Human Sciences Research Ethics Committee (CREC) to commence data collection (See Appendix C). Additionally, the researcher secured approval from the KZN Department of Education for the study and submitted a formal request (permission letter) to the school principal to gain permission to proceed with the research (See Appendix C). To render the study ethical, the rights to anonymity, confidentiality, informed consent, permission to conduct research, voluntary participation, privacy, the right to withdraw from the study and harm and risk were observed.

3.8.1. Informed Consent

According to Branson (2018), informed consent is a complex concept that involves not only the provision of information but also the comprehension and voluntariness of an individual's decision-making process. Recent studies have emphasised the importance of informed consent in ensuring that individuals can make decisions that are in their best interests and that they are fully aware of the potential risks and benefits involved (Koh, Kim, & Lee, 2020).

To obtain informed consent, the researcher explained the nature, purpose, benefits, risks, and alternatives of the study to the respondents. The researcher ensured that the information provided to the respondents was clear and easy to understand so that consent could be given freely, without coercion or undue pressure (See Appendix B).

Furthermore, the researcher needed to obtain parental consent for learners under 18. This was achieved by providing assent forms to the learners who were already stratified and under 18 years old, and who were willing to take part. Since it was not possible to reach all parents at the same time, the researcher found it practical to give the learners the assent forms along with an information sheet that explained the purpose of the research and the procedures involved, thereby allowing them to present these to their parents for their consent and approval (See Appendix B).

3.8.2. Privacy

According to Carter, Greenhalgh, Haines and Crichton (2018), privacy in research refers to the protection of individuals' personal and sensitive information from unauthorised access, use, and disclosure. The protection of privacy is particularly crucial in studies involving vulnerable populations, such as children, prisoners, or individuals with mental health conditions (Kohut, 2017). As noted by Harris (2020), privacy is not just a moral right but also a fundamental aspect of human dignity.

To ensure the respondents' privacy, the researcher obtained informed consent from research respondents (See Appendix B). The researcher also ensured that all information was kept confidential by using the respondents' details only for research purposes and not sharing them with others unless necessary. Data are stored securely in a researcher's laptop using password-protected folders and secure servers. The study is also conducted ethically by following ethical guidelines and obtaining ethical clearance from all relevant bodies. Overall, the researcher communicated with respondents throughout the research process and informed them about any new developments or changes in the study.

3.8.3. Anonymity and Confidentiality

Researchers consider anonymity and confidentiality as key components of study ethics, where sensitive information is protected by removing personal identifiers from respondent data or keeping data separate from identifiable individuals (Duffield & Spooner, 2018). This ensures that private information is safeguarded by using secure coding and storage methods, thereby safeguarding the identities of respondents

involved in the research (Schuler, Presser & Schuman, 2018). Both anonymity and confidentiality are vital to maintaining research integrity and upholding ethical standards. The respondents were assured of anonymity and confidentiality verbally and in the written consent form. The researcher controlled access to the data collected and ensured it was stored in a secure location. The researcher also avoided using third parties without a confidentiality agreement. Only the researcher has access to the data currently; permission will be granted for two third parties, the Unisa College of Human Sciences Research Ethics Committee (CREC) and research supervisors, on a third-party agreement. This study used a self-administered questionnaire to allow respondents to complete the survey anonymously. Before collecting data, the researcher obtained informed consent from respondents and ensured that they were aware of how the data would be used and the measures that were put in place to ensure anonymity. After completing the research, the researcher is set to go back to the school and inform the respondents about the study's findings and reiterate the measures taken to maintain confidentiality.

3.8.4. Voluntary Participation and The Right to Withdraw from The Study

According to Carpenter and Stryker (2018), voluntary participation means that all research respondents are free to decide whether or not to participate, with no external influence forcing them to do so. They reserve the right to withdraw from the study at any time and have the freedom to decline specific questions or procedures that they feel are intrusive or uncomfortable. According to Wong, Jansen, and Bellenger (2017), respondents are more likely to participate voluntarily when they understand how their contributions can impact the research.

Once the respondents were categorised, the researcher started explaining the study's goals and significance. Respondents were also provided with informed consent to make an informed decision regarding participation. Verbal and written consent were obtained. The research respondents were also not pressured or forced to participate in the study, and the research questions were formulated in a way that did not influence the respondents' decisions. They were further provided with a simple and clear method to withdraw from the study if they wished to do so. The researcher ensured them that

should they withdraw, their data would be removed for future analysis. The respondents' decision to withdraw from the study did not adversely affect any treatment or care they received. Lastly, the researcher continuously monitored and communicated with respondents throughout the data collection process to identify any issues, concerns or complaints that arose.

3.8.5. Harm and Risk

Research involving human respondents must have a benefit to society, and the risks involved to respondents must be balanced against the potential benefit to the overall community. Harm in research refers to any injury to a respondent's rights, safety, or welfare, which can encompass physical, psychological, social, financial, or economic aspects (Terry, Mello & Koenig, 2020). Conversely, risk relates to the likelihood and severity of potential harm. In general, a study should not involve more than minimal risk, meaning that the likelihood of harm should not exceed that encountered in everyday life. This study was categorised as a high-risk for several reasons. First, it addressed the sensitive issue of teenagers' mental health, including topics such as depression, anxiety, and self-esteem, which can be particularly distressing for some individuals. Secondly, the study involved collecting data that is emotionally charged, such as stories of bullying and self-harm. Lastly, some teenagers already had personal experiences with social media addiction or mental health issues, which made it difficult for them to objectively participate in the study.

Harm and risk in this study were minimised by obtaining informed consent from respondents, where they were provided with all the necessary information regarding the study's objectives, risks, benefits, and their rights. After reviewing the study's potential risks and benefits, approval from the Unisa College of Human Sciences Research Ethics Committee (CREC) was granted to conduct the study. The researcher also bore in mind that the psychological consequences needed sensitivity. She was also sensitive to the respondents' emotions that could psychologically harm them. Additionally, respondents were constantly reminded that if they felt that some parts of the survey questions were overwhelming, they had the right to withdraw from the study or skip

those questions. Once the research is done, respondents will be debriefed about the study's results, and any harm caused unknowingly would be addressed.

3.9. Conclusion

This chapter offered an overview of the research design and methodology employed in this study. It began by outlining the selected research paradigm, followed by a description of the research method and a detailed explanation of the approach, which was quantitative. The chosen quantitative approach facilitated a thorough understanding of the complex relationship between social media addiction and mental health. Additionally, the chapter explained the descriptive research design selected for the study, highlighting its characteristics, advantages and the rationale behind its selection. The study setting and population were described in detail, including the sampling procedures, sample size, and the inclusion and exclusion criteria. Data collection methods and processes were also discussed, where data were collected by means of a self-administered survey questionnaire and subsequently analysed using SPSS. Moreover, the chapter also addressed the measures taken to ensure research quality, focusing on validity, reliability, and objectivity. The ethical considerations that guided the research were also addressed.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0. Introduction

Chapter three of this study outlined the design and methodology used to conduct the data collection process. This chapter explains how the self-administered survey questionnaire was used to solicit the data, the rationale for specific questions, and the analysis of the quantitative results from the study. The results are compared with relevant literature and theoretical perspectives explained in this study to emphasise similarities and differences with previous studies. The questionnaire utilised in this study was analysed meticulously to ensure that the data gathered were presented clearly with the aid of tables, graphs, charts and percentages.

Furthermore, the first section of this chapter presented data on the demographics about who participated in the study, while the subsequent section outlined their social media usage patterns. Following these, the chapter provided a detailed analyses of mental health and social media impact from the data collected, the relationship between social media addiction and mental health, and included additional data and statistical insights. The data were analysed following the study's objectives and the research questions, which were outlined in the first chapter. The study used the Statistical Package for Social Sciences (SPSS) method for analysis and descriptive statistics was used to draw conclusions from the data collected.

4.1 Background Information

The data presented in this section were derived from completed survey questionnaires. A total of 200 learners, representing 30% of the overall population from grades 8 to 12, were identified as potential respondents to represent the entire population. The population was stratified according to educational levels, gender, how frequently they use social media, time spent on social media and whether they had experienced mental health issues because of using social media. Before the recruitment of respondents, the study and its methodologies were presented to the principal, and all necessary approvals were secured from different authorities to carry out the research. Consent

was further granted by parents/ guardians whose children were below the age of 18. After categorising the population and identifying potential respondents, the researcher proceeded to explain the study to the potential respondents, including its associated risks and benefits, and stressed that participation was voluntary, allowing individuals the choice to withdraw at any time.

The anonymity of the respondents was guaranteed, along with a strong emphasis on their privacy and confidentiality. The chosen respondents willingly agreed to take part in the study without any pressure. Those under 18 were allowed time to obtain consent from their parents to participate in the study. Some parents agreed to let their children participate in the study, while others did not, and their choices were respected. After consent was granted, the researcher began the data collection process. Initially, feedback was collected through online questionnaires, but network problems prompted the researcher to distribute printed survey questionnaires as a backup for Grade 8-12 learners. A total of 113 learners participated in the study, while 66 (33%) potential respondents declined to take part, and 21 (10.5%) learners who initially agreed later decided to withdraw from the study. Respondents were given 2 days to fill out the questionnaire, mainly to allow time for obtaining parental or guardian consent for those under 18, as well as to address network issues faced by some learners. All data were anonymised by refraining from collecting any identifying details about the respondents. After all the questionnaires were submitted, the researcher initiated the data analysis process. Data were analysed using the SPSS tool and presented using descriptive analysis.

4.2 Restating the Research Questions and Questionnaire Information

The primary goal of this research was to explore the impact of social media addiction on the mental health of teenagers, specifically at a rural high school, SHSS, and to propose potential interventions to reduce social media addiction among teenagers. To achieve this goal, the researcher developed a self-administered survey questionnaire that consisted of five sections that included 17 structured closed-ended questions and four open-ended questions for the respondents to further specify or explain. This questionnaire was designed to ensure the rigour and objectivity of the collected data. All

the questions were developed in line with the study's objectives, which aimed to establish the effects of social media addiction on the mental health of teenagers, specifically at SHSS and to examine whether high school learners feel the need to use social media more frequently or experience feelings of anxiety or loneliness when they cannot access it. Furthermore, the questions were also developed based on the study's hypothesis, which proposed that spending excessive time on social media contributes to an increase in mental health issues among high school learners and that there is a relationship between social media use and mental health disorders within this group.

Section A of the questionnaire gathered demographic information from the respondents to ensure that the sample accurately represented the population being studied. The demographic data included age, race, grade level, and gender. This was also intended to facilitate the analysis of the data by population group and to identify trends and patterns that could inform further recommendations. Section B included three questions focused on respondents' usage of social media, including how often they visit various platforms and the duration of their daily usage in minutes or hours. The questions were: a) which social media platforms do you use most frequently? b) How many hours do you spend on social media per day? and c) Do you use social media before bed?

Section C consisted of five questions designed to assess the respondents' levels of social media usage and how this affected their mental well-being. The questions were as follows: a) Do you feel anxious or stressed when you are unable to access social media? b) Have you ever spent more time on social media than you intended to? c) Do you feel like you need to check your social media accounts constantly throughout the day? d) Do you feel like you are addicted to social media? and e) how do you think social media has affected your mental health? All five questions in this section were crucial for meeting the study's objectives, as they helped to explore the motivations and factors influencing teenagers' social media behaviours and their effects on mental health.

Section D consisted of the following questions aimed at examining the impact of social media on the mental health of teenagers: a) In the past month/s, have you experienced any of the following symptoms of depression? b) In the past month/s, have you

experienced any of the following symptoms of anxiety? For both questions, respondents were asked to select from the provided options or choose "other" to specify any symptoms not listed. The next question was: Do you feel like social media has improved or worsened your mental health? Please explain. This was followed by: Have you ever experienced cyber-bullying or online harassment on social media? If yes, how did it affect your mental health? This section highlighted the relationship between social media usage habits and various mental health outcomes. It also facilitated the identification of risk factors linked to social media addiction while raising awareness of the issue and supporting initiatives aimed at enhancing mental health literacy. This, in turn, could assist teenagers in navigating online environments more safely.

The last section was based on an individual's perceptions of how social media addiction affects their mental health. The section had four questions, which were: a) Do you think social media has a positive impact on your mental health? b) Do you think social media harms your mental health? c) Do you think social media affects your self-esteem and body image? d) If you are comfortable sharing, please provide any additional information or comments about your experience with social media and its impact on your mental health. The section allowed the researcher to collect valuable information about teenagers' views on their own experiences with social media and its impact on their well-being. It also added value in understanding the psychological repercussions of social media addiction on teenagers, thus offering a deeper understanding of the psychological mechanisms involved and their consequences.

4.3. Data Presentation and Data Analysis

Social media emerged as a concerning issue for teenagers, who are particularly vulnerable to the detrimental effects of excessive usage. It has become an essential aspect of contemporary teenagers' lives, impacting their mental health, self-image, and behaviours. As of 2025, there are 5.24 billion active social media users globally (Statista, 2025). In South Africa, there are about 39.15 million active social media users (Statista 2025). Notably, 15.8% of social media users in South Africa fall within the teenage age group of 13 to 17 years (Global Digital Report, 2023). These platforms have become a central part of every aspect of teenage life. However, what needed to

be researched was how widespread its use was among high school teenagers, and what impact it has on future generations. The following analysis of the data collected from this study presents how widely used social media are among teenagers in KZN, specifically at SHSS, which increasingly brings with it problems concerning their mental well-being, as well as those related to increasing anxiety.

4.3.1. Demographics of Respondents

The study surveyed 113 teenage learners from different grades. SHSS is an all-girls high school; therefore, only female learners participated in the study. Of the 200 learners initially identified as potential respondents, 113 agreed to take part in the study. Sixty-six others declined, and their decisions were duly respected. Additionally, 21 learners initially agreed to participate but subsequently withdrew their consent. The withdrawals occurred on different dates and were made without providing specific reasons for their decision to no longer participate. The non-participation of 87 out of 200 learners in this study had minor implications for data analysis. The sample size reduction (from 200 to 113 respondents) led to a reduced statistical power, making it harder to detect meaningful associations or differences. Additionally, a total of 87 learners choosing not to participate introduced a non-response bias in this study, which skewed the results if the characteristics of the non-respondents differ systematically from those of the respondents. Despite these challenges, the researcher managed to collect data from 16.99% (113 of 665 learners) of the entire population and from 56.5% (113 of 200 learners) of the potential respondents. Overall, all surveyed learners agreed to the terms, indicating informed consent. The demographic breakdown is as follows:

4.3.1.1. Respondents' Age Groups

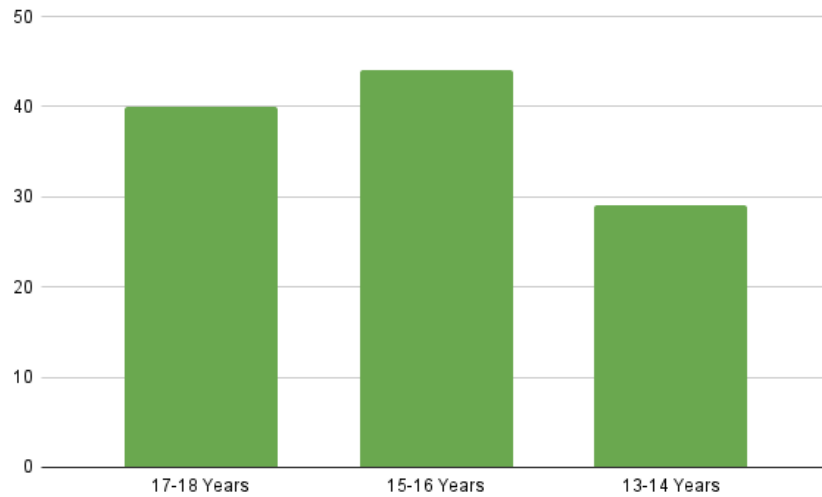


Figure 4.1: Respondents' Age Groups

Figure 4.1 depicts the highest percentage of respondents aged between 15-16 years (38.9%), followed by 17-18 years (35.4%) and 13-14 years (25.7%). The sample is evenly distributed across the three age groups, with a slightly larger proportion in the 15–16-year range. This implies that among the surveyed teenagers, those in the 15-16 age group are the most represented. In this study, it appears that most teenagers suffering from social media addiction and its impact on mental health are those aged 15-16. This may mean that more learners in this age group have access to smartphones and different forms of social media. It also indicates that middle to late teenage years may be a crucial period when social media use has the greatest influence. The following larger group of 17-18 year-olds suggests that social media addiction remains common among older teenagers, though slightly less so than in the 15 -16 age group. The smallest proportion in the 13-14 age group implies that younger teenagers are either less affected by or less likely to report social media addiction. Overall, the numbers in Figure 4.1 suggest that social media addiction may increase with age within the teenage years, peaking around 15-16 years.

4.3.1.2. Respondents' Race

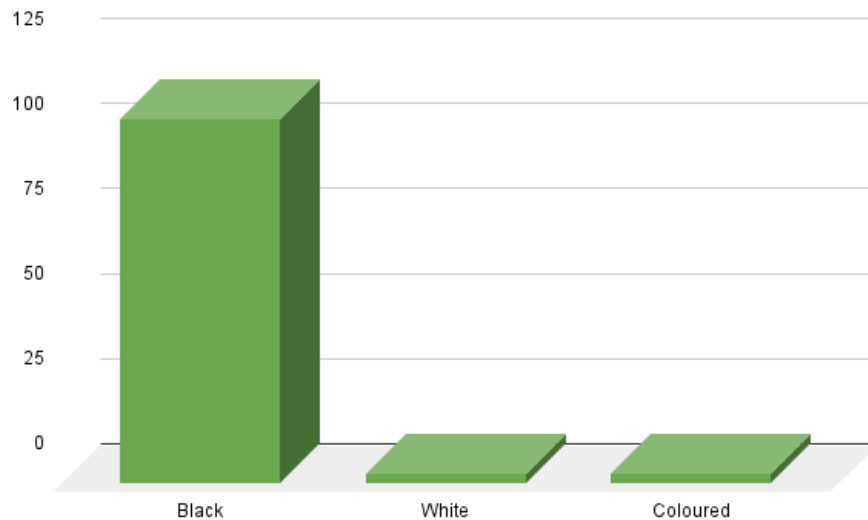


Figure 4.2: Respondents' Race

Figure 4.2 illustrates that most of the respondents were Black (94.7%), with 2.7% identifying as Coloured and 2.7% as White, respectively. These results are mainly reflective of Black teenagers, and therefore, any conclusions or insights regarding social media addiction and mental health in this study are primarily relevant to this group, given their larger representation. The relatively small number of respondents identifying as Coloured and White indicates limited data for meaningful comparisons between different racial groups, as their experiences and social media usage behaviours may vary. Overall, the fact that 94.7% of Black respondents participated shows that this study was conducted in a predominantly Black community due to the geographic location of the school. These demographic breakdowns help contextualise the findings, emphasising the importance of considering cultural and social differences when examining the impact of social media on mental health across diverse populations.

4.3.1.3. Respondents' Educational Level

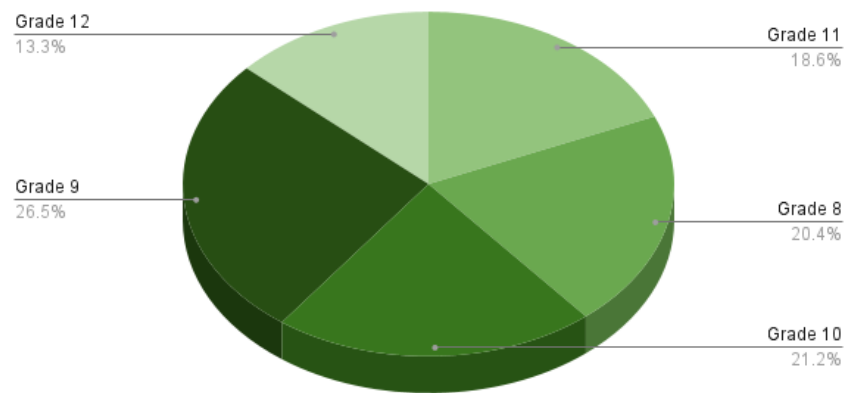


Figure 4.3: Respondents' Educational Level

Figure 4.3 shows that the respondents in this study were in Grades 8-12, with Grade 9 having the largest representation of 26.5% followed by Grade 10 with 21.2%, Grade 8 with 20.4%, then Grade 11 with 18.6% and Grade 12 with 13.3%. The respondents are spread across Grades 8-12, offering a variety of educational experiences. These findings suggest that Grade 9 learners are disproportionately affected by social media addiction, potentially impacting their mental health, compared to other grade levels. The decreasing percentages in higher grades might indicate that older learners develop better coping mechanisms, become more aware of the potential negative impacts, or simply reduce their social media use over time. Moreover, this distribution highlights the importance of targeted interventions and support for younger teenagers who may be more vulnerable to social media's adverse effects on their mental health.

4.3.2. Social Media Usage Patterns

4.3.2.1. Most visited social media platforms daily

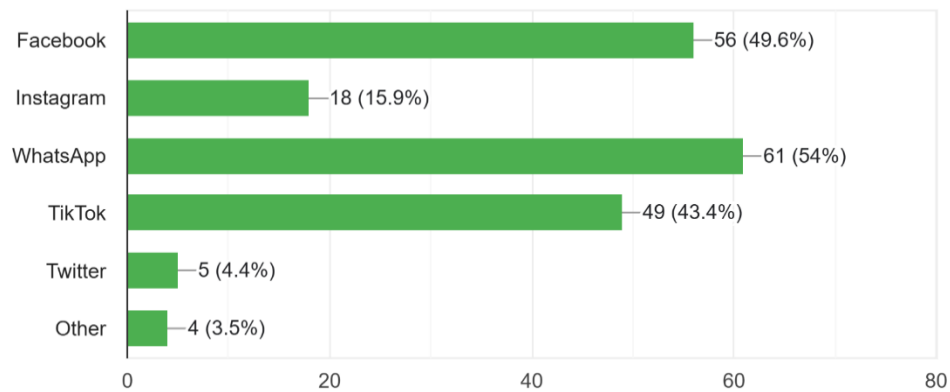


Figure 4.4: Most visited social media platforms daily

Figure 4.4 shows that among the surveyed group of 113 respondents, WhatsApp emerged as the most frequently used social media platform, with a total of 61 instances across various combinations, accounting for about 54% of users. Facebook followed closely with 56 instances, representing nearly 50% of users. TikTok also exhibited heavy use, with 49 users and utilisation by approximately 43.4% of the respondents. Of special mention is the fact that Facebook and WhatsApp combinations were widely used, as "Facebook and WhatsApp" were utilised together by approximately 15.9% of the respondents. When it came to individual usage, WhatsApp was the most frequently used alone at 16.8%, followed closely by TikTok at roughly 15%, with no other platforms mentioned alongside them.

The frequent use of these platforms reflects modern-day trends, as messaging apps and short-form video sites have gained immense popularity among teenagers. This also suggests that the predominant use of platforms like WhatsApp, Facebook, TikTok, X and Instagram mirrors their preferences for communication, social interaction, and entertainment in today's digital landscape. WhatsApp is often preferred for its efficient messaging features that facilitate quick and private conversations, while Facebook provides a space for maintaining relationships and sharing diverse content with friends and family. In contrast, TikTok captivates users with its entertaining short-form videos, serving as a creative outlet for self-expression. Overall, the heavy use of these

platforms may indicate that teenagers are navigating their social lives through digital channels, seeking connection, community, and entertainment in a fast-paced visual environment. It also highlights their ability to adapt to new technologies and the significant role of social media in shaping their daily lives and identities.

4.4.3.2. Time spent on social media per day

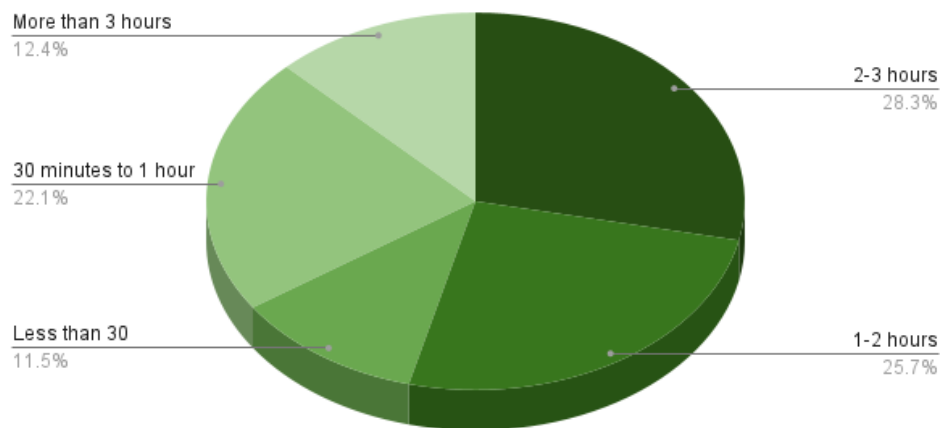


Figure 4.5: Time spent on social media per day

Figure 4.5 shows that 28.3% of the surveyed teenagers spend 2-3 hours per day on social media, with 25.7% spending 1-2 hours, and 22.1% spending 30 minutes to 1 hour. A notable percentage of 12.4% reported spending more than 3 hours per day. The Global Digital Report (2022) indicated that teenagers typically spend 6 hours and 58 minutes daily on social media, averaging 2 hours and 30 minutes on each platform. However, the findings of this study show a notable difference, with most respondents reporting that they spend only half that amount of time. A notable 12.4% of the surveyed learners in this study stated that they spend more than 3 hours on social media. Recent research by Stellenbosch University (2025) revealed that the average time teenagers spend on social media is estimated to be 3 hours and 17 minutes daily. This highlights the pervasive nature of social media in teenagers' daily lives, and the amount of time they dedicate to browsing, interacting, and consuming content on these platforms.

Spending so much time on social media can be an indication of a variety of behaviours and experiences among teenagers. It may imply that social media has become their main avenue for entertainment, communication, and information (Orben, Dienlin & Przybylski, 2020). This usage can also highlight their desire to connect with peers, explore their identities, and engage with a wider community beyond their immediate surroundings. The time can be spent sharing personal experiences, participating in trends, or consuming content that resonates with their interests and values. However, such extensive use of social media can negatively impact mental health, productivity, relationships, and overall well-being. It might indicate a possible addiction or reliance on social media, leading to feelings of isolation, anxiety, and diminished self-esteem (Gentzler, et al., 2023). Research conducted by Keles, McCrae, and Grealish (2020) found a significant association between social media addiction and elevated levels of anxiety, depression, and psychological distress in teenagers. The study highlighted how social media can intensify feelings of loneliness, isolation, and negative self-image, which are well-known risk factors for anxiety and depression. Additionally, research by Hugues Sampasa, Kanyinga and Rosamund (2020) indicated that learners facing mental health issues tend to utilise social media for over two hours. Therefore, it is of importance to note that the more hours learners spend online, whether for browsing or social interaction, the more likely they are to develop an addiction in various ways, ultimately leading to changes in behaviour and mental health-related issues such as depression and anxiety.

4.3.2.3. Social media usage before sleeping

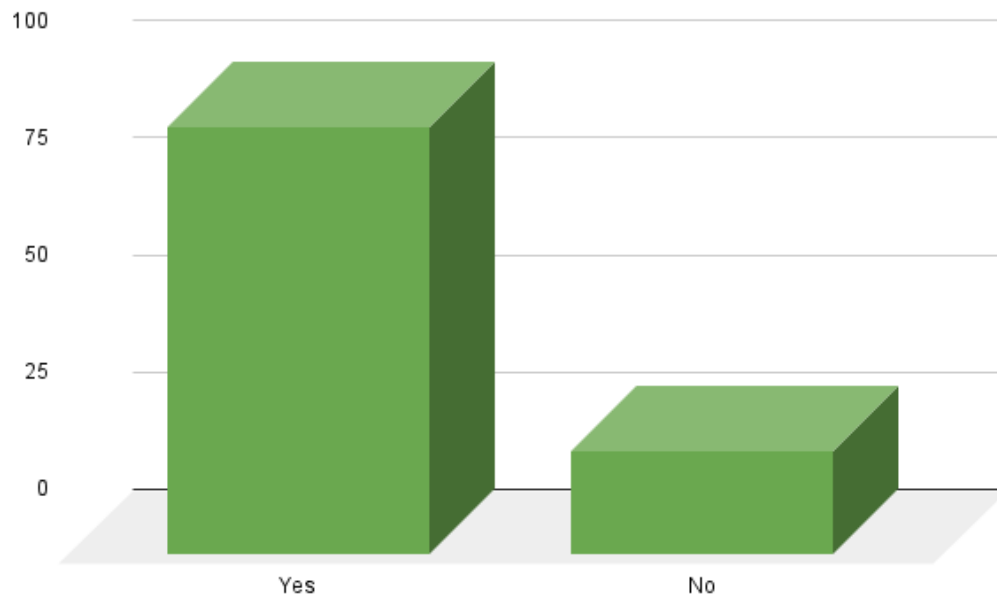


Figure 4.6: Social media usage before sleeping

Figure 4.6 indicates that 80% of respondents reported using social media before going to bed, potentially leading to disruptions in sleep and mental health concerns. This statistic may be an indication of the cultural shift in how young people communicate, interact, and consume information. It also underscores the considerable effects on their mental well-being, sleep habits, and social interactions. Using social media at night can alter routines, as the blue light from screens may disrupt the body's natural sleep-wake cycle. This may lead to insufficient sleep, which is crucial for teenagers' physical and cognitive development. A study by Levenson, et al. (2021) found a consistent connection between using a mobile device before bed and poorer sleep quality. Their findings included shorter sleep duration, lower sleep quality, and increased daytime fatigue.

As a result, the effect of social media on sleep quality remains a significant risk factor for mental health issues among teenagers, making it a critical area for ongoing research. The content consumed and the interactions experienced on these platforms can also affect their emotional well-being, loneliness, or inadequacy (Huang, 2021).

Furthermore, this trend emphasises the strong influence of digital connectivity in the lives of teenagers, showcasing their desire for social engagement and validation in an online environment. In a nutshell, it also points to the importance of parental guidance and open discussions about healthy screen time practices, especially before bedtime, to help promote improved sleep habits among teenagers.

4.3.3. Mental Health and Social Media Impact

4.3.3.1. Anxiety and stress caused by limited access to social media

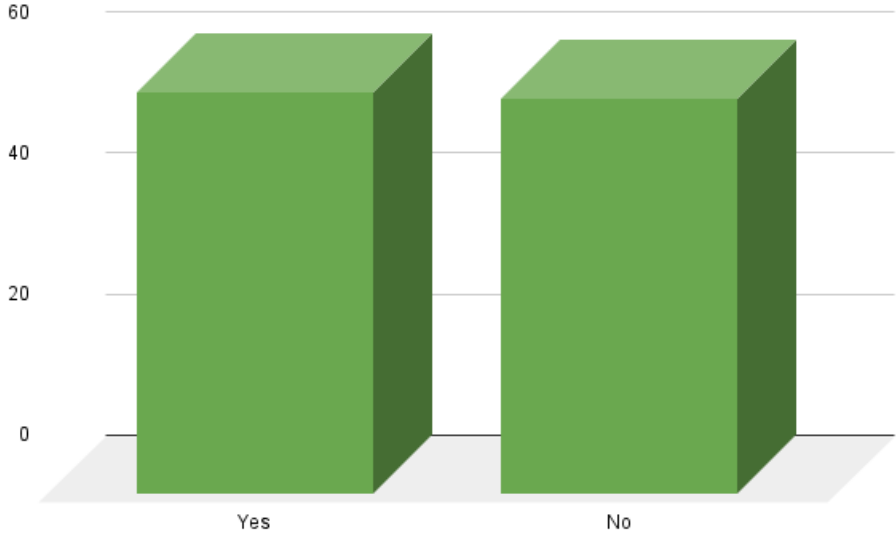


Figure 4.7: Stress and anxiety caused by limited access to social media

Figure 4.7 shows that 50.4% of those surveyed reported experiencing anxiety or stress when they cannot access social media, indicating a potential issue with accessing these platforms. A little less than half (49.6%) of these learners stated that they do not experience stress or anxiety when they are unable to access social media. The number of learners who reported feeling stressed when they cannot access social media may suggest several implications for teenagers’ state of well-being and social behaviour. For one, it might suggest that a significant number of teenagers are dealing with a FOMO, which can intensify anxiety and stress when they cannot participate in online communities. Furthermore, for many teenagers, social media are a keyway to communicate and connect with their friends. Being unable to access these platforms

may result in feelings of loneliness and disconnection, further contributing to stress and anxiety.

The high percentage also signals a potential dependency on social media for emotional well-being. This reliance can lead to unhealthy coping mechanisms, where teenagers might struggle to manage their emotions without these platforms (Smith, Leonis, & Anandavalli, 2021). This also underlines the need for awareness and resources related to mental health among teenagers as it suggests a potential area for intervention, emphasising the importance of promoting healthy digital habits and coping strategies. Overall, these findings supported the study's hypothesis regarding the connection between social media use and anxiety/depression, highlighting the necessity for more research in this area as this percentage underscores the significance of acknowledging the emotional and psychological impacts of social media, encouraging a balance between online and offline interactions.

4.3.3.2. Respondents who unintentionally spend more time on social media

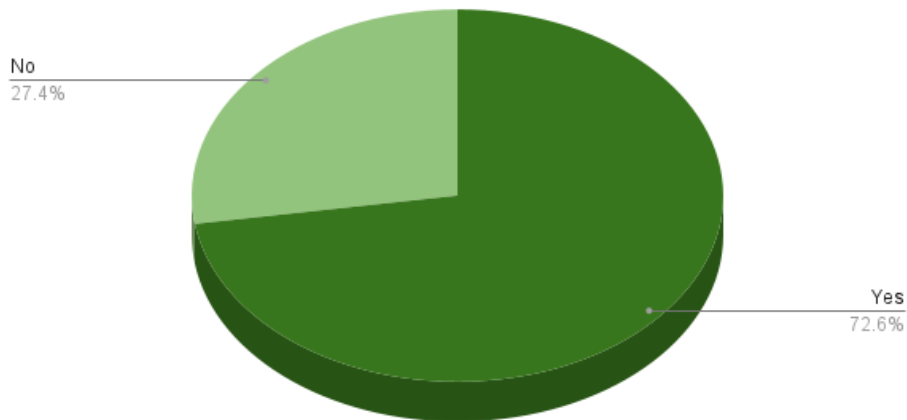


Figure 4.8: Respondents who unintentionally spent more time on social media

Figure 4.8 indicates that over half of the respondents (72.6%) have spent time on social media unintentionally, while 27.4% disagreed with this statement. The substantial proportion of respondents who admitted spending more time on social media than

planned suggests a high prevalence of potentially problematic usage patterns among teenagers. It could be a sign that many teenagers have trouble controlling their social media habits, which can be a marker of behavioural addiction. Spending excessive time on social media has been associated in prior research with adverse mental health outcomes (Przybylski, Orben, & Weinstein, 2020). The significant number of teenagers acknowledging overuse may also be associated with increased mental health concerns within this demographic. The 27.4% who disagree may represent teenagers who either have better self-regulation, different perceptions of "spending more time than intended," or possibly less engagement with social media.

4.3.3.3. Respondents who felt the need to regularly monitor their social media accounts

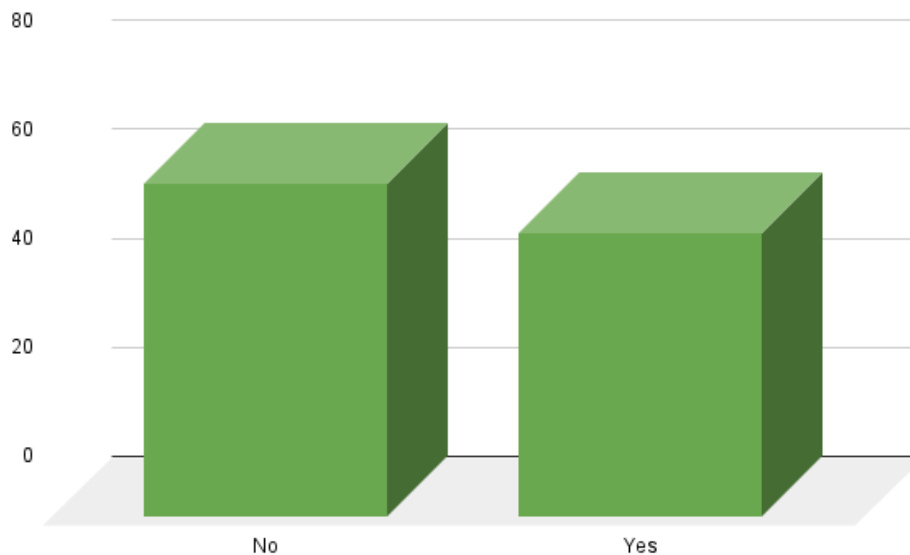


Figure 4.9: Respondents who felt the need to regularly monitor their social media accounts

Figure 4.9 indicates that 61 (54%) of respondents do not feel the need to regularly monitor their accounts. While the percentage of learners who disagreed with the question is higher, 52 (46%) of respondents acknowledged that they frequently feel the urge to check their social media. This data suggests a possible connection between social media usage and compulsive behaviour. The notable proportion (46%) who agree they often feel compelled to check their social media highlights the potential prevalence of this addiction among the respondents. The narrow gap between these two figures

implies a significant number of the samples are experiencing a level of compulsion related to social media.

4.3.4. Social Media Addiction Perception

4.3.4.1. Respondents who perceive themselves as being addicted or not addicted to social media

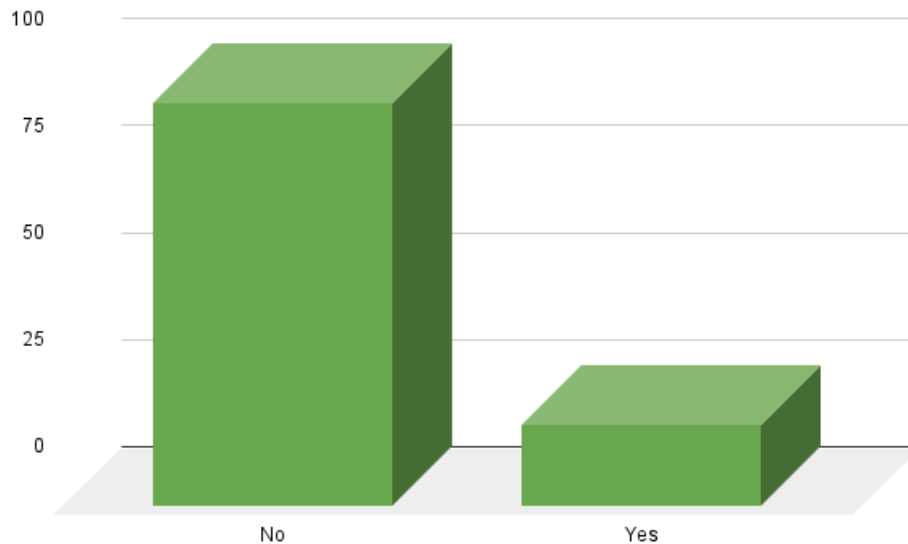


Figure 4.10: Respondents who perceive themselves as being addicted or not addicted to social media

Figure 4.10 shows that while 83.2% of the respondents do not believe they are addicted to social media, 16.8% acknowledged feeling apprehensive about social media. It can be assumed that the learners who are addicted to social media have unresolved psychological issues within themselves. In relation to the chosen theories of this study, specifically the psychodynamic theory, unresolved conflicts and experiences from childhood can affect an individual's behaviour and mental health later in life. Therefore, to support this assumption, learners facing unresolved issues, such as low self-esteem, feelings of inadequacy, or challenges in forming relationships, may be more likely to develop a social media addiction as a means of escaping or coping with these difficulties. In addition, the psychodynamic theory highlights the importance of defense mechanisms (Bornstein, 2023), which are unconscious strategies people use to shield

themselves from anxiety or unpleasant emotions. Teenagers who are struggling with negative emotions or stressors may resort to social media for distraction or to numb their emotions, which can perpetuate a cycle of addiction.

Furthermore, the prevalence of this belief suggests a cultural shift in how teenagers perceive their relationship with technology, indicating that social media is becoming intertwined with their identities in complex ways (Hugues, Kanyinga & Lewis, 2020). Also, a significant portion of these teenagers feel that their use of social media is problematic or excessive, which indicates a growing concern among this demographic about the potential negative impact of social media on their lives. While 16.8% is a notable percentage, it serves as a starting point for conversations around the role of social media in the lives of teenagers and the support they may require. Marengo, et al. (2021) discovered a positive relationship between time spent on social media, levels of satisfaction, and various features of social media, suggesting that those who display signs of addiction may also experience greater satisfaction with the features offered by each social media platform.

Additionally, it is important to note that 83.2% of the respondents in this study believed they were not addicted to social media at all. This suggests that most of these teenagers are confident in their ability to manage their social media habits. This could also indicate a lack of awareness about what constitutes addiction, as many may not recognise behavioural patterns that could be classified as addictive. For many teenagers, social media is a fundamental aspect of their lives, and they might view their usage as normal or just a regular part of social interactions instead of an addiction. This normalisation could lead them to overlook any possible negative effects. In addition, for some teenagers, social media may serve as a coping mechanism for stress, anxiety or feelings of isolation (Sha & Dong, 2021). They may not see their dependence on these platforms as 'addiction' if they connect their usage with positive experiences (Keles, McCrae, & Grealish, 2020). Furthermore, one could also perceive this as an element of denial regarding the negative effects of social media. Many of these teenagers might acknowledge the downsides but still feel they can control their usage. Moreover, while a high number of respondents might not view themselves as addicted, it prompts

important discussions about addiction definitions, self-awareness, and the cultural context of social media use in their lives.

4.3.5. Effects of Social Media on Mental Well-being

4.3.5.1. The influence of social media on self-esteem and body image

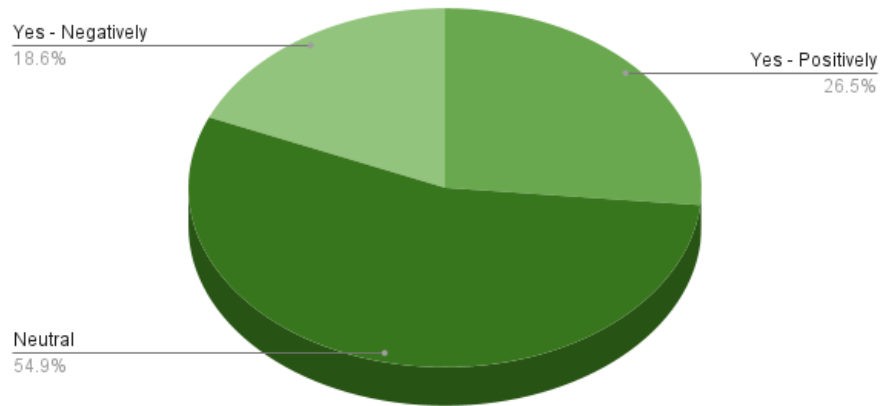


Figure 4.11: The influence of social media on self-esteem and body image

Figure 4.11 above shows that out of the 113 learners surveyed, 18.6% expressed a negative stance by answering “yes-negatively” when asked whether social media positively or negatively affects their self-esteem and body image. Conversely, 26.5%, responded “yes-positively”, indicating that many teenagers perceive social media as having a beneficial effect in this regard. Additionally, 54.9% remained neutral, reflecting uncertainty about social media’s influence on their self-esteem and body image. These figures suggest that, overall, most teenagers do not perceive social media as damaging to their self-esteem or body image, though there remains a notable proportion who are undecided or see potential benefits.

From an analytical perspective, these responses highlight a complex relationship between teenagers' perceptions and their actual experiences with social media. The high percentage of neutral responses indicates uncertainty or mixed feelings, perhaps reflecting the subtle role social media plays in their lives. The fact that more

respondents see social media as beneficial rather than harmful could suggest that teenagers are aware of its positive aspects, such as connection and support, but may also be cautious or unsure about its negative effects.

Additional comments from respondents revealed varying levels of uncertainty regarding the overall impact of social media on their mental well-being. Several learners expressed difficulty determining whether social media affected them positively or negatively, suggesting limited self-awareness or insufficient support in evaluating their digital experiences. Some responses highlighted clear negative consequences. Some of the learners described frequent or excessive use, particularly of platforms such as TikTok, as contributing to diminished concentration, impaired decision-making, academic stress, and feelings of being overwhelmed. These reflections point to patterns of problematic use and suggest a link between high engagement and adverse mental health outcomes. Several respondents also noted that their ability to focus on schoolwork was disrupted, which further exacerbated stress and anxiety.

However, not all responses were negative. A subset of learners identified positive effects, indicating that social media sometimes served as a source of stress relief, entertainment, and emotional comfort. They associated humorous or relatable content with improved mood, and some learners reported enhanced communication with trusted peers, leading to increased feelings of connection and belonging. Others noted personal growth benefits, such as improved self-confidence, greater awareness of people with similar experiences, better English language skills, and increased access to information. Overall, the percentages and reports noted above could serve as an important context in this study; for example, teenagers who perceive social media positively might be more motivated to engage heavily with it, which could increase the risk of addiction. On the contrary, those who recognise potential negative impacts might be more cautious or experience internal conflict regarding their social media use. The divergence in perceptions underscores the importance of considering individual differences and subjective experiences when assessing the relationship between social media use and mental health outcomes.

4.3.5.2. Social media addiction and depression

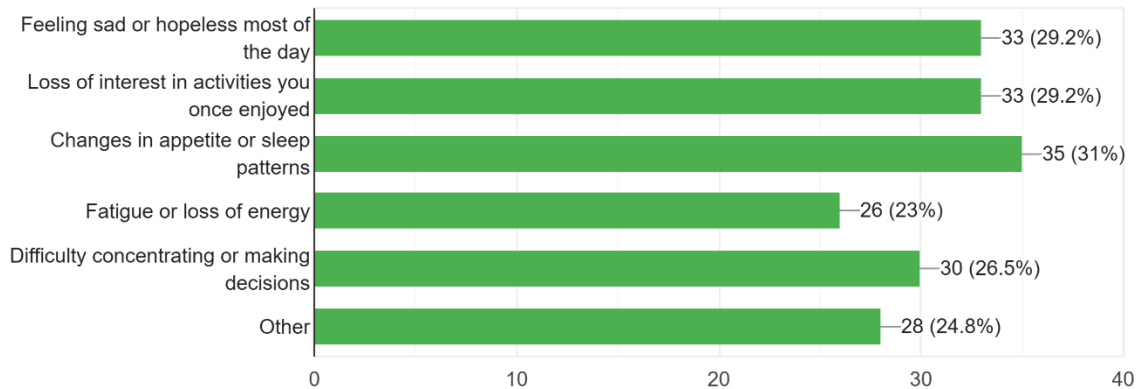


Figure 4.12: Social media addiction and depression

Figure 4.12 indicates that ‘changes in appetite or sleep patterns emerged as the most common effect of social media on mental health when looking at signs related to depression, with 35 instances across various combinations, representing approximately 31%. This was closely followed by two effects, each accounting for 29.2%, feeling sad or hopeless throughout the day and a loss of interest in activities once enjoyed. ‘Difficulty in concentrating or making decisions also appeared frequently, with 26.5% occurrence when combined with other effects. Effects categorised as ‘other,’ which respondents did not specify, accounted for 24.8%. Lastly, fatigue or loss of energy was identified as the least common effect experienced by the respondents.

The statistics suggest that social media addiction among teenagers is strongly associated with several adverse mental health effects, with changes in appetite or sleep patterns emerging as the most frequently reported issue, accounting for approximately 31% of instances. This indicates that social media use may significantly disrupt fundamental behavioural processes, such as eating and sleeping habits, potentially leading to broader health concerns. The equal prevalence of feelings of sadness or hopelessness and a loss of interest in previously enjoyed activities (both around 29.2%) underscores the emotional toll social media can exert on teenagers, possibly contributing to depression or decreased motivation. These findings highlight how social

media's influence extends beyond superficial interactions, deeply affecting teenagers' emotional well-being and daily functioning.

Additionally, other mental health challenges like difficulty in concentration or decision-making (26.5%) and fatigue or loss of energy (24.8%) point to mental and physical impacts associated with social media addiction. The presence of unspecified effects categorised as "other" (24.8%) suggests that there are additional, possibly less commonly recognised, consequences that need further investigation. Overall, these statistics collectively emphasise that social media addiction can have multifaceted and significant effects on teenagers' mental health, affecting emotional stability, cognitive functioning, and physical vitality.

4.3.5.3. Social media addiction and anxiety

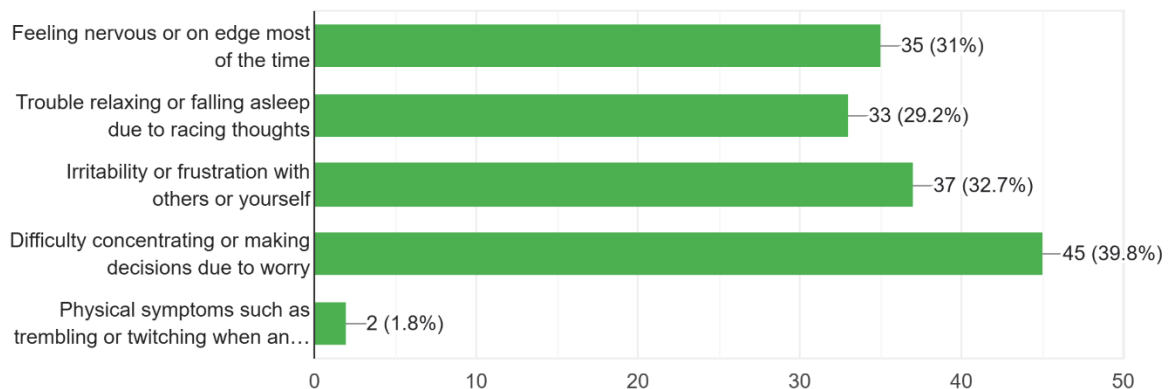


Figure 4.13: Social media addiction and anxiety

Figure 4.13 indicates that the most reported impact of social media on mental health related to anxiety was 'difficulty in concentration or decision-making due to worry,' affecting 39.8% of respondents. This was followed by 'irritability or frustration with others or oneself' at 32% and feeling nervous or on edge most of the time at 31%. The fourth most reported effect was 'trouble relaxing or falling asleep due to racing thoughts,' at 29.2%. The least reported anxiety-related mental health issue was 'physical symptoms,' such as trembling or twitching when anxious.

These statistics suggest that social media addiction is significantly associated with heightened anxiety-related symptoms among teenagers, with a notable 39.8% of respondents having trouble concentrating or making decisions due to worry. This indicates that social media may worsen feelings of mental fatigue and cognitive overload, which can impair daily functioning and academic performance. The prevalence of irritability and frustration (32%) and feeling nervous or on edge (31%) further highlights how social media can contribute to emotional instability and heightened stress levels, potentially disrupting teenagers' daily functioning and interpersonal relationships. Additionally, the report that nearly 30% of teenagers experience trouble relaxing or falling asleep due to racing thoughts suggests that social media-related anxiety may interfere with essential self-regulation processes like sleep, which are critical for mental health and overall well-being.

The relatively lower prevalence of physical symptoms such as trembling or twitching implies that while bodily appearances of anxiety are present, they are less commonly reported compared to mental and emotional effects. This distribution of reported effects indicates that social media addiction predominantly influences mental and emotional aspects of teenagers' health, particularly related to worry, irritability, and sleep disturbances.

4.3.6. Cyberbullying and Mental Health

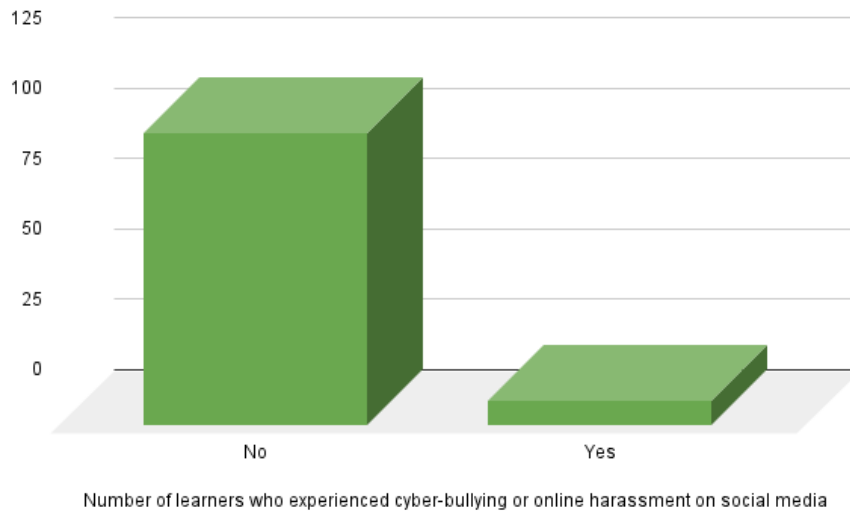


Figure 4.14: Cyberbullying and Mental Health

Figure 4.14 shows that while 9 (8%) of respondents experienced cyberbullying, 104 (92%) of the remaining respondents reported not having experienced any form of cyberbullying or online harassment. Although 8% may be relatively low, it highlights the concerning prevalence of online harassment among teenagers. It also indicates that a small but noteworthy portion of teenagers encounter negative online experiences, which may contribute to mental health challenges such as anxiety, depression, or low self-esteem. Considering that 92% of respondents reported not having experienced any form of cyberbullying or online harassment, this may suggest that cyberbullying might be less common or less impactful in their social media experiences compared to other factors affecting mental health. This also implies that, although cyberbullying is frequently emphasised as a concern in online environments, it may not be the leading or most widespread factor contributing to mental health issues related to social media use among these teenagers.

Table 4.1: Comparison of cyberbullying with other studies

Study	Cyberbullying Reported
This study	8%
Farhangpour, Maluleke and Mutshaeni (2019)	55%
Kowalski et al (2014)	20%

Table 4.1 shows that the current study found that 8% of respondents were victims of cyberbullying. While less than some other research studies, it is still a sign that cyberbullying has considerable negative effects on mental health, currently leading large numbers into more anxiety and stress. Social media and cyberbullying have negatively affected the lives of teenagers, leading to numerous heartbreaking events that have resulted in the tragic loss of young lives globally. In South Africa, there are several instances, including that of a high school student who tragically took her life after enduring persistent bullying and humiliation that was circulated on social media. Various news outlets, such as IOL (2021, 2022), TimesLive (2023), and News24 (2022), have documented cases of cyberbullying where victims ultimately chose to end their lives. Such cases include that of a 13-year-old teenager who committed suicide following alleged bullying by friends on WhatsApp groups (The Psychological Society of South Africa (PsySSA), 2019). Another case involves two learners who reportedly committed suicide after being bullied by peers at two different schools in the area (SABCNews, 2023). Reports indicated that learners from various high schools created groups on social media where such bullying incidents occurred.

A study by Fisher, Gardella and Teurbe-Tolon (2016) discovered that cyberbullying victimisation relates to poorer mental health outcomes in teenagers, including an increased risk of sadness and anxiety. Cyberbullying has become common in inflicting harm on others, especially among teenagers. A study by Gohal et al. (2023) revealed that individuals who were victims of cyberbullying experienced significant declines in their academic performance. The findings also showed that approximately 20% of those

surveyed contemplated dropping out of school, while 19% thought about reducing their internet usage and 21% considered self-harm because of cyberbullying's impact.

These incidents the serious and devastating impact that cyberbullying and the negative effects of social media can have on vulnerable young people. The incidents and referenced research indicate an urgent need for enhanced education regarding online behaviour and the potential consequences of cyberbullying. It also emphasises the necessity of fostering safer online spaces and enforcing stricter measures to combat and prevent cyberbullying (Smith, Johnson & Lee, 2023). Additionally, this highlights the importance of mental health support for young people who may be experiencing online harassment and abuse due to dependence on social media. It also serves as a sobering reminder of the damaging impact of online bullying and the critical need for proactive measures to prevent further tragedies for those affected.

4.3.7. Correlation between Time Spent on Social Media and Mental Health Symptoms

To investigate the potential link between social media use and various mental health symptoms, the researcher compared the time spent on social media with the reported symptoms among learners. A total of 113 learners were surveyed about their experiences with different mental health symptoms, such as feeling sad or hopeless, loss of interest in activities, changes in appetite and sleep patterns, fatigue or loss of energy etc. To determine if there was a correlation between social media use and these symptoms, a Chi-square test was conducted, and learners were categorized based on their daily social media usage time. The frequencies of reported and unreported symptoms were then analyzed within each group to confirm the presence of a relationship.

For instance, the observed values for the symptom of feeling sad or hopeless most of the day were as follows:

Time spent on social media	Learners reported the symptom	Learners who did not report the symptom	Row total
<30 mins	2	20	22
1 hr.	8	15	23
1 – 2 hrs.	9	14	23

2 – 3 hrs.	9	14	23
3 + hrs.	4	18	22
Total	32	81	113

$$E = \frac{(\text{row total})(\text{column total})}{\text{grand total}}$$

$$E = \frac{22 \times 32}{113}$$

$$= 6.23 \text{ (Learners who reported)}$$

and

$$E = \frac{22 \times 81}{113}$$

$$= 15.77 \text{ (learners who did not report)}$$

The same calculation process was then applied to each time spent category, yielding the following results:

Time spent on social media	Learners reported the symptom	Learners who did not report the symptom
<30 mins	6.23	15.77
1 hr.	6.52	16.49
1 – 2 hrs.	6.52	16.49
2 – 3 hrs.	6.52	16.49
3 + hrs.	6.23	15.77

The Chi-square was then calculated as follows:

$$x^2 = \sum \frac{(O - E)^2}{E}$$

$$x^2 = \frac{(2 - 6.23)^2}{6.23}$$

$$x^2 = 2.87 \text{ (Learners who reported for <30mins)}$$

and

$$x^2 = \sum \frac{(O - E)^2}{E}$$

$$x^2 = \frac{(20 - 15.77)^2}{15.77}$$

$$x^2 = 1.13 \text{ (Learners who did not report for <30mins)}$$

Again, the same calculation process was then applied to each time spent category, yielding the following results:

Time spent on social media	Reported	Unreported
<30 mins	2.87	1.13
1 hr.	0.34	0.47
1 – 2 hrs.	0.94	0.37
2 – 3 hrs.	0.95	0.02
3 + hrs.	0.80	0.32

Following the combination of all rows, the overall Chi-square value for the symptom 'feeling sad or hopeless' was 8.21, slightly below the critical value of 9.49. This process was then applied to the remaining symptoms, resulting in a total Chi-square value of:

Reported symptom	X ² value
Feeling sad or hopeless most of the day	8.21
Loss of interest in activities once enjoyed	7.34
Changes in appetite or sleep patterns	7.62
Fatigue or loss of energy	7.18
Difficulty concentrating or making decisions	7.41
Other	7.05

Based on the X² values provided, the overall Chi-square statistic across all symptoms is X² =44.70, which exceeds the critical value of 36.42 at the 0.05 significance level. These findings indicate a potential significant association between the amount of time spent on social media and the occurrence of mental health symptoms among the surveyed learners. This implies that variations in social media usage may be linked to differences in reported mental health outcomes. Several patterns emerged from the data, notably that learners who spend 1-2 hours and 2-3 hours daily on social media report higher frequencies of mental health symptoms. These groups consistently exhibited more reported symptoms compared to those with lower usage (<30 minutes) and the highest usage category. Interestingly, learners who spend less than 30 minutes on social media tend to report fewer symptoms, suggesting a lower risk of mental health

issues. The patterns observed suggest that moderate to high social media use may be associated with an increase in mental health symptoms, especially emotional and behavioral issues such as sadness, loss of interest, and sleep or appetite disturbances.

These results correlate with the theoretical framework of this study, specifically the Media Dependency Theory, which suggests that as media becomes more prevalent in society, people begin to rely on it more for shaping their perceptions, attitudes, and behaviours (DeFleur & Ball-Rokeach, 1976). The theory also indicates that this reliance may stem from the instant gratification and sense of control that the media offers, which can result in anxiety, depression, and other negative emotional states (Woods & Scott, 2016). This is evident based on the above results as learners who spend a great amount of time on social media or are dependent on social media for a variety of reasons exhibit higher levels of depression and anxiety.

DeFleur and Ball-Rokeach (1989) argue that people tend to become increasingly dependent on media that effectively satisfy their needs and expectations rather than on media that merely fulfil them to some extent. In the context of this study, this implies that teenagers may develop a strong reliance on media that aligns with their needs and expectations, rather than merely accepting media that only partially satisfy their desires. This pattern can result in a persistent craving for validation and attention, which, when unmet, may contribute to feelings of anxiety, depression, and loneliness.

These findings are also supported by a study conducted by Marino (2018), which established that teenagers who are dependent on social media tend to experience higher levels of stress, anxiety, and depression. Similarly, Andreassen et al. (2017) also established that social media addiction is associated with higher levels of stress, anxiety, and depression among teenagers. The continual urge to monitor and interact with social media can foster feelings of inadequacy, comparison, and fear of missing out, potentially triggering or worsening symptoms of anxiety and depression.

The above evidence indicates a complex interplay between social media use and mental health, where increased time spent online can contribute to negative mental health outcomes among teenagers. Although social media can offer benefits, this relationship underscores the importance of promoting healthy social media habits,

encouraging face-to-face interactions, and educating individuals about how social media affects mental well-being.

4.3.8. Relationship between Socio-economic Status and Social Media Usage and Mental Health Issues

To examine the relationship between social media use, mental health, and socio-economic status based on the number of platforms each learner use, a mental health score was developed in comparison with the number of platforms used:

Table 4.2: Number of social media platforms used and their associated mental health scores

Number of social media platforms used	Meaning
1	Low usage
2-3	Moderate
4+	Very high

Table 4.3: Frequencies of the number of platforms reported as being used by the learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Facebook	10	8.8	8.8	8.8
	Facebook, Instagram	4	3.5	3.5	12.4
	Facebook, Instagram, WhatsApp	2	1.8	1.8	14.2
	Facebook, Instagram, WhatsApp, TikTok	2	1.8	1.8	15.9
	Facebook, Other	1	.9	.9	16.8
	Facebook, TikTok	7	6.2	6.2	23.0
	Facebook, TikTok, Twitter	1	.9	.9	23.9
	Facebook, WhatsApp	18	15.9	15.9	39.8
	Facebook, WhatsApp, TikTok	10	8.8	8.8	48.7
	Facebook, WhatsApp, TikTok, Other	1	.9	.9	49.6
	Instagram	7	6.2	6.2	55.8
	Instagram, TikTok	2	1.8	1.8	57.5
	Instagram, WhatsApp	1	.9	.9	58.4
	Other	1	.9	.9	59.3
	TikTok	17	15.0	15.0	74.3

TikTok, Twitter	2	1.8	1.8	76.1
WhatsApp	19	16.8	16.8	92.9
WhatsApp, TikTok	6	5.3	5.3	98.2
WhatsApp, TikTok, Twitter, Other	1	.9	.9	99.1
WhatsApp, Twitter	1	.9	.9	100.0
Total	113	100.0	100.0	

The table above illustrates the frequency with which learners reported using various social media platforms simultaneously. The most common group consisted of those using 2-3 platforms, with 55 occurrences, followed by those using a single platform at 54 occurrences, and a smaller group of 4 learners using four different platforms. Based on the data in the previous tables, learners who reported using more platforms (2-4) tended to have moderate to high mental health scores, suggesting a potential link between increased platform use and greater mental health symptoms. The number of social media platforms used appears to play a role in influencing mental health outcomes. This is further supported by this study's results that 80.5% of learners use social media before bed, 72.6% exceed recommended usage limits, and 50.4% experience anxiety when unable to access these platforms. These behaviors are more commonly observed among those with higher levels of platform usage.

These observations may suggest that as socio-economic status increases, so does the amount of time teenagers spend on social media and the number of social media platforms they use. The observed pattern indicates a potential link whereby increased social media usage among higher socio-economic groups is associated with greater mental health challenges. It is important to note that the data does not establish a direct cause-and-effect relationship but highlights an association that could be influenced by various underlying factors, such as differences in access to technology, social expectations, or environmental stressors. These findings also advocate that while social media can serve as a means of social connection and entertainment, excessive use, particularly among teenagers from higher socio-economic backgrounds, may be linked to more severe mental health concerns.

4.4. Conclusion

This chapter presented an in-depth analysis of how social media addiction affects the mental health of teenagers, exploring the connection between social media use and mental well-being, as well as possible interventions. The data revealed several significant findings, including that the 15-16-year-old age group is the most affected by social media addiction. WhatsApp, Facebook, and TikTok emerged as the three most frequently visited platforms. The study also highlighted that teenagers typically spend most of their time on social media, between 2 to 3 hours daily. Over half of the respondents experienced anxiety when unable to access social media, and more than 70% admitted to unintentionally spending additional hours online. The most reported mental health effects linked to social media use include changes in appetite or sleep patterns and difficulty concentrating or making decisions due to worry. The study also identified a correlation between social media usage and mental health symptoms. Furthermore, cyberbullying was reported by 8% of respondents as a prevalent issue.

The findings discussed not only affirm the study's hypotheses, but also pave the way for future investigations into the lack of awareness surrounding social media addiction, mental health challenges, and the dangers of cyberbullying. Notably, this chapter also highlighted key themes that emerged from a quantitative survey, illustrating how respondents' experiences align or diverge from the established literature. The chapter aimed to synthesise the qualitative results, offering a comprehensive understanding of the research questions while addressing potential implications for practice and future studies.

CHAPTER FIVE

SUMMARY OF THE STUDY, RECOMMENDATIONS AND CONCLUSION

5.0. Introduction

The purpose of this quantitative study was to investigate the differential effects of social media addiction on the mental health of teenagers, specifically high school learners. Chapter four presented the data gathered from the study's respondents. In this chapter, a summary and analysis of the key findings are discussed. The chapter also focused on the study's conclusions and offers a series of recommendations for future research. Furthermore, the researcher discussed certain limitations that impacted both the study and the researcher.

5.1. Summary of the Study Findings

5.1.1 Social Media Usage Patterns and Time Spent

The study findings reveal that WhatsApp was the most used platform, followed by Facebook, TikTok, and then Instagram. X was identified as the least used app among the respondents, along with all other social networking sites categorised as "other". The findings also revealed that 28.3% of the teenage learners dedicated 2-3 hours daily to social media, while 25.7% spent 1-2 hours, and 12.4% exceeded 3 hours. These findings indicate that WhatsApp is the dominant platform among the learners, suggesting that instant messaging remains their primary mode of online interaction. Facebook, TikTok, and Instagram follow in popularity, showing that learners still engage with a mix of traditional and newer social media platforms. X and other less common platforms appear to have minimal relevance in this context. The study further revealed that most learners spend between one and three hours on social media each day, indicating moderate but consistent engagement. A smaller proportion exceeds three hours daily, reflecting a group with potentially higher exposure to risks associated with prolonged use. These patterns help the researcher identify which platforms and usage durations may be most strongly linked to mental health outcomes among rural high school learners.

5.1.2 Social Media as a Cause of Stress and Anxiety

The findings also indicate that social media significantly contributes to stress and anxiety, with many users experiencing mental health challenges related to its use. The most common issue reported was difficulty concentrating or making decisions due to worry, affecting nearly 40% of respondents. Other prevalent symptoms included irritability or frustration, experienced by about one-third of users, and feelings of nervousness or being on edge, reported by roughly 31%. Additionally, respondents experienced trouble relaxing or falling asleep because of racing thoughts, stress and anxiety. Less frequently, users reported physical symptoms such as trembling or twitching when anxious. Overall, social media appears to be a substantial source of mental health stressors, primarily manifesting through heightened anxiety and difficulty managing daily functioning.

5.1.3 Regular Monitoring of Social Media Accounts and Mental Health

The findings also revealed that most respondents (50.4%) reported experiencing anxiety or stress when unable to access social media, highlighting feelings of dependence and uncertainty about their social media engagement. Additionally, 46% felt a persistent urge to check their social media accounts, indicating ambivalence and internal conflict regarding their usage. Many respondents (83.2%) believed they could control their social media use, yet a substantial number (72.6%) spent more time on social media than they intended, reflecting uncertainty about self-regulation.

5.1.4 Social Media Addiction and Depression among the Teenagers

The findings revealed that social media use significantly impacts the mental health of teenagers, with changes in appetite or sleep patterns emerging as the most common indicators of depression, observed in approximately 31% of cases. Other prevalent signs include persistent feelings of sadness or hopelessness and a loss of interest in previously enjoyed activities, each accounting for around 29.2%. Difficulties in concentration and decision-making were also notable, appearing frequently when combined with other symptoms. Additionally, some respondents reported effects categorised as 'other,' which collectively represented about 24.8%, though these were less specifically identified. Fatigue and low energy levels were the least commonly

reported effects. Moreover, these findings suggest a strong association between social media addiction and depressive symptoms among teenagers, highlighting the need for intervention.

5.1.5 Impact of Social Media Usage on Respondents' Mental Health

The study's findings also indicated various effects of social media addiction on teenagers' mental health. The most frequently reported effect was difficulty concentrating or making decisions (39.8%), followed by feelings of irritation and frustration with others or oneself (32.7%). The third most common effect involved changes in appetite, sleep patterns, and persistent feelings of nervousness or being tense and anxious, often because of stress, all affecting more than 30% of the respondents. Additional effects included trouble relaxing or falling asleep due to racing thoughts (29.2), persistent feelings of sadness or hopelessness, and a decreased interest in previously enjoyed activities (29.2), all of which were among the commonly reported effects of social media addiction. On the data that was collected to fill in the gaps, some of the reported effects were anxiety, stress, distraction and difficulty in focusing and managing with academics.

5.1.6 The Effects of Cyberbullying on Teenagers' Mental Health

A notable 8% of learners experienced cyberbullying, which can exacerbate psychological distress. As low as the percentage is, it confirms the effects of social media addiction and the concerning prevalence of online harassment among teenagers.

5.1.7 Social Media as a Coping Mechanism

Less than 50% of the respondents reported positive effects, such as social media helping to reduce stress by providing entertainment through jokes and memes they relate to. Respondents also valued social media for staying informed, accessing information, improving English skills, and connecting with like-minded individuals, indicating its role as a tool for coping and social engagement. The use of social media before bed (80%) and engagement with various platforms could also be seen to seek comfort or distraction during stressful times.

5.1.9 The Dual Impact of Social Media

Despite the negative effects, less than 50% of the respondents acknowledged positive influences, such as reduced stress, improved language skills, and enhanced social connections. The data demonstrated that social media could both negatively impact mental health, contributing to anxiety, depression, and cyberbullying and offer benefits like social support, entertainment, and educational opportunities. This duality underscores the complex role of social media, acting as both a source of psychological challenges and a valuable resource for social and emotional support.

5.1.10 Correlation between Time Spent on Social Media and Mental Health Symptoms

The study also revealed a link between the amount of time spent on social media and mental health issues, showing that learners who use social media for more than three hours daily displayed increased levels of anxiety and depression.

5.1.11 Relationship between Socio-economic Status, Social Media and Mental Health Issues

A hypothetical relationship between socio-economic status and social media was also discovered, where learners who often engage with a variety of platforms had moderate to high mental health scores, potentially leading to different mental health outcomes.

5.2. Limitations of the Study

This study had several limitations that merit consideration:

- ❖ Most respondents were not willing to share their personal experiences regarding how social media influenced their mental well-being. This reluctance resulted in incomplete data, restricting the depth and detail of insights into the mental health effects. Additionally, the unwillingness of respondents to openly share their experiences hindered the study's ability to accurately assess the relationship between social media use and mental health issues among teenagers, making it difficult to draw definitive conclusions or offer solid recommendations for future research.
- ❖ This study lacked diversity of respondents, with most being Black and all being females, given that the school is an all-girls high school. In addition, the study

was located in a rural area; therefore, the sample of this study did not represent the broader population of teenagers. Consequently, the findings do not accurately capture the effects of social media addiction on mental health across diverse racial, cultural, and gender groups. This limitation curtailed the study's findings and conclusions regarding the demographic examined, thereby restricting the ability to make broader interpretations or develop universally applicable interventions.

- ❖ A significant number of potential respondents (87) withdrew from the study, and others declined to take part without giving a reason. Such substantial loss of respondents interfered with the study's results, as those who chose to remain in the study might have differed systematically from those who withdrew, possibly being less affected or more open to sharing their experiences. The reduced sample size also reduced the study's statistical power, making it more difficult to identify meaningful associations or differences. Moreover, this limitation restricted the researchers' ability to confidently generalise the findings to the wider group of teenagers.
- ❖ The researcher only explored the effects of social media addiction on mental health, without considering its impact on other areas such as academic performance, family and friends' relationships, and other general effects. By focusing solely on mental health, the study overlooked the multifaceted nature of social media's influence on teenagers' lives, which made it difficult to give out recommendations, as the study's findings do not fully inform teenagers, educators and parents about the broader implications of social media use. The narrow scope that the researcher decided to focus on limited the study and led to missing other important effects, such as consequences in their academic success and social interactions.
- ❖ The decision to use printed questionnaires in this study, after many respondents encountered problems submitting the online form due to connectivity issues, introduced certain research limitations. Relying on paper reduced the potential

for real-time data validation and affected respondent engagement, especially because teenagers are more accustomed to digital interactions. Although privacy and anonymity were assured, the switch from an online to a printed format might have affected respondents' honesty or comfort levels, potentially influencing the accuracy of their answers due to the decreased sense of anonymity associated with paper questionnaires.

5.3. Recommendations from Study Results

This research demonstrates that social media influences the mental health of teenagers in both positive and detrimental ways, as indicated by the data. While it can serve as a highly effective communication tool with many advantages, it also has the downside of causing stress, anxiety, and even psychological addiction. Considering the findings from this study, it is crucial to propose a set of specific recommendations to promote healthier online behaviours. Therefore, the following recommendations have been put forward for practice and further exploration in similar studies:

5.3.1 Promoting Responsible Social Media Use and Digital Literacy among Teenagers

Based on the findings of this study, schools and guardians of the respondents should collaborate in raising awareness about responsible social media use, emphasising the importance of maintaining balance and practicing mindful engagement. Furthermore, SHSS should include digital literacy programmes in their curricula to help learners develop critical thinking skills necessary for evaluating online content and recognising signs of addiction. For individuals struggling to balance their academic, social, and social media lives, it is recommended that they engage in offline activities that promote a well-rounded lifestyle that lessens their dependence on digital platforms for validation and social connections.

5.3.2 Managing Screen Time to Promote Mental Health

Parents need to monitor their children's screen time, as this can assist in managing their social media usage and protecting their mental well-being. Additionally, parents should have open conversations with their teenagers about managing online activities and the possible impact of excessive social media use.

5.3.3 Develop Programmes to Reduce Cyberbullying among Teenagers in Schools

Schools and communities should develop preventive programmes that educate teenagers about the nature and impacts of cyberbullying. If possible, social media platforms need to take an active approach by improving their reporting systems to ensure that offenders are not only blocked temporarily, as they can easily create new accounts with different usernames, but are also addressed appropriately.

5.3.4 Maintain Two-Way Communication Between Parents and their Children

Parents or guardians are encouraged to maintain open communication with their children about their online experiences to create an environment where teenagers feel safe to discuss any troubling incidents.

5.3.5 Implementing Cell Phone Policies to Promote Mental Well-Being

Schools are also advised to establish policies regarding cell phone use during school hours. This approach can help prevent distractions and reduce the urge for learners to constantly check their accounts, thereby lessening social media addiction and related mental health issues. Additionally, this will allow learners to set healthy boundaries with technology, which can foster a balance between their online activities and offline experiences, which is crucial for maintaining good mental health.

5.4 Suggestions for Future Research

5.4.1 Exploring Platform-Specific Impacts to promote Mental Well-being

Given that WhatsApp is the most used platform, future studies could explore how various social media platforms uniquely influence mental health, considering their distinct features, usage behaviours, and user interactions.

5.4.2 Examining Social Media Activities to Understand Mental-Health Outcomes

Future studies could also investigate the specific types of social media activities, such as passive scrolling, active posting, and messaging, that are most associated with negative mental health outcomes, with an emphasis on pre-bedtime use, considering that over 80% of teenagers engage with social media before sleep. Additionally, future

research could also add or study other variables like personality traits, offline social support, and pre-existing mental health conditions to better understand potential moderating or mediating factors influencing the observed relationship between social media usage duration and mental health outcomes.

5.4.3 Enhancing Respondent Diversity in Future Research

By considering the limited diversity of respondents in this study, future research must explore different races, genders, and backgrounds so that generalisations and conclusions are made for the entire teenage population from various perspectives.

5.4.4 Analysing the Relationship between the Quantity of Apps used, Teenagers' Addiction, and Mental Health Impact

Another finding of this study was that teenagers who used four or more social media apps showed signs of mental health problems. Future studies need to explore this, with particular emphasis on the quantity of apps they use and how these apps contribute to social media addiction, as well as their impact on mental well-being and academic performance. Additionally, schools and parents/guardians could limit number of social media apps on teenagers' phones to one or two to reduce excessive usage of social media and its impact on the mental health of teenagers. Moreover, social media platforms should enforce parental control to ensure that parents/guardians monitor their teenager's social media usage.

5.5. Conclusion of the Study

While social media may be viewed as a valuable tool for communication and learning, it requires a certain level of management when using it because, according to the findings of this study, it has detrimental effects on mental health-related issues. From the results of this study, a conclusion can be drawn that social media addiction among teenagers is associated with several negative mental health effects. These include cognitive difficulties such as trouble concentrating and making decisions; emotional issues like irritation, frustration, anxiety, sadness, hopelessness, and stress; as well as physical and behavioural changes such as changed appetite, disrupted sleep patterns, and

feelings of nervousness or being on edge. Additionally, social media addiction appears to contribute to increased distraction and difficulty managing academic responsibilities.

Based on the results, one could also conclude that excessive social media use, specifically more than three hours per day, is associated with higher levels of anxiety and depression symptoms among teenagers. While direct causal relationships cannot be established from the data alone, the combination of high usage, self-reported lack of addiction, and the incidences of cyberbullying may indicate a complex interplay between social media use and mental health outcomes. In relation to the study's hypothesis, these findings support the idea that social media addiction, characterised by excessive and compulsive use, has harmful effects on teenagers' mental health. Additionally, if engaging with social media beyond certain duration consistently correlates with heightened anxiety and depression, it means that addiction-like behaviours may be a contributing factor.

This study also revealed a hypothetical relationship between social media use, mental health and socio-economic status, indicating that learners who engage with multiple platforms (3-4) tend to experience mental health effects. Specifically, the number of social media platforms used play a role in influencing mental health outcomes, with greater platform usage correlating with a higher likelihood of reporting psychological symptoms. The findings imply that both the duration of social media use and the extent of engagement across various platforms may play a role in mental health issues like anxiety and depression.

Furthermore, it can be concluded that a relatively small but significant number of teenagers are affected by cyberbullying. This finding suggests that cyberbullying is a relevant factor to consider when examining the mental health of teenagers in relation to social media use, as it may contribute to issues such as anxiety, depression, or low self-esteem among those affected. This statistic also highlights a significant issue in our digital age and suggests that a notable number of individuals, particularly among younger demographics, are facing harassment or negative behaviour online.

It can be concluded that a substantial number of teenagers spend considerable amounts of time on social media, with most engaging for at least 1-3 hours daily. The varying durations of social media use suggest differing levels of exposure, which influence their mental health outcomes. Additionally, a great number of respondents representing the population are suffering from social media addiction and are not aware of it. The fact that most respondents do not believe they are addicted to social media, even while spending over 3 hours a day on these platforms and feeling anxious or a constant need to check their accounts, suggests a disconnect between their self-perception and potentially harmful behaviour. This also indicates a lack of awareness or understanding that constitutes addiction to these platforms. The discrepancy between their perceived beliefs and actual usage, along with the correlations observed, also indicates that most teenagers may have difficulties recognising or admitting to their addictive behaviours.

Moreover, the current research also revealed that although excessive use of social media was linked to increased anxiety and depression, some teenagers experienced positive feelings of connection and support, which can be beneficial for their mental health. This advocates that the effect of social media on mental health may be influenced by both the amount and the nature of online interactions.

5.6. Chapter Summary

As indicated by the findings of this study, social media addiction can be detrimental to the mental well-being of teenagers. This chapter presented an overview of the research problem, selected methodologies, and a review of the objectives and hypotheses. Additionally, it included a comprehensive summary of the findings, written according to the themes identified in the results. The summary of findings confirmed that social media use has harmful effects on teenagers' mental well-being and is linked to various other common issues. Fortunately, there are numerous solutions to address social media addiction and its impact on mental health, as highlighted in the recommendations for future research, making it possible to mitigate these negative effects and encourage healthier habits. Furthermore, the study addressed the limitations that impeded the researcher in certain areas of the research. The conclusions derived from the study's

results were also examined. Overall, the study successfully achieved its aims and objectives, making valuable contributions to the field and laying a foundation for continued investigation and development.

SOURCES CONSULTED

Abraham, K. 2020. Adolescents' attitude towards the use of social media, *International Journal of Advanced Research*, 8(2), 443–453.

Abuhamda, E., Ismail, I.A., and Bsharat, T.R. 2021. Understanding quantitative and qualitative research methods: A theoretical perspective for young researchers. *International Journal of Research*, 8(2), 71-87.

Agyapong-Opoku, N., Agyapong-Opoku, F., and Greenshaw, A. 2025. Effects of social media use on youth and adolescent mental health: A scoping review of reviews. *Behavioural Sciences*, 15(5), 574-585.

Aker, J.C. and Mbiti, I.M. 2020. Mobile phones and economic development in Africa. *The Journal of Development Studies*, 56(3), 521-536.

Ali, I., Balta, M. and Papadopoulos, T. 2022. Social enterprise and social media platforms: a systematic review. *International Journal of Information Management*, 10(1), 510-516.

Alreck, P., and Settle, R. 2004. *The Survey Research Handbook*. 3rd ed. Boston: McGraw-Hill.

Alshobaili, F. and Alyousefi, N. 2019. The effect of smartphone usage at bedtime on sleep quality among Saudi non-medical staff. *Journal of Family Medicine and Primary Care*, 8(3), 1953–1957.

Andreassen, C., and Pallesen, S. 2014. An overview of social networking sites addiction. *Current Pharmaceutical Design*, 20(4), 53-61.

Andreassen, C.S., Pallesen, S., and Griffiths, M.D. 2016. The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviours*, 6(4), 287-293.

Aparicio-Martinez, P., Perea-Moreno, A., Martinez-Jimenez, M., Redel-Macías, D., Vaquero-Abellan, M. and Pagliari, C. 2019. A bibliometric analysis of the health field regarding social networking sites and young people. *International Journal of Environmental Research and Public Health*, 1(6), 4024-4031.

Arias-de la Torre, J., Puigdomenech, E., García, X., Valderas, J.M., Eiroa-Orosa, F.J., Fernández-Villa, T., Molina, A.J., Martín, V., Serrano-Blanco, A., Alonso, J., and Espallargues, M. 2020. Relationship between depression and the use of mobile technologies and social media among adolescents: Umbrella review. *Journal of Medical Internet Research*, 22(8), 1-12.

Arendt, F., Scherr, S., and Romer, D. 2019. The impact of exposure to self-harm on social media: a two-wave panel study among young adults. *New Media & Society*, 2(1),11-12.

Asiamah, N., Mensah, H.K., and Oteng-Abayie, E. 2017. General, target, and accessible population: Demystifying the concepts for effective sampling. *The Qualitative Report*, 22(6), 1607-1621.

Ayas, T. and Horzum, M. 2013. The relationship between depression, anxiety, loneliness, self-esteem and internet addiction. *Social and Behavioural Sciences*, 9(3), 283-290.

Aydin, S., Koçak, O., Shaw, T.A., Buber, B., Akpınar, E.Z., and Younis, M. 2021. Investigating the effects of social media addiction on adults with depression, *Healthcare*, 9(4), 450-465.

Babbie, E. 2016. *The Practice of Social Research*. 14th ed. Boston, MA: Cengage Learning.

Ball-Rokeach, S.J., and DeFleur, M.L. 2003. A dependency model of mass-media effects. In: J. Bryant & D. Zillmann, eds. *Media effects: Advances in theory and research* (pp. 175-193). Routledge, New York.

Ballin, M., and Barcaroli, G. 2013. Joint determination of optimal stratification and sample allocation using a genetic algorithm, *Survey Methodology*, 3(9), 369-393.

Bandura, A. and Cioffi, D. 1979. Constructive processes in moral judgment. *Journal of Personality and Social Psychology*, 37(3),444-454.

Banerjee, A., and Chaudhury, S. 2010. Statistics without tears: Populations and samples. *Industrial Psychiatry Journal*, 19(1), 60-65.

Bano, S., Cisheng, W., Khan, N., and Khan, A. 2019. WhatsApp use and students' psychological well-being: Role of social capital and social integration, *Healthcare*, 3(1), 200–208.

Berryman, C., Ferguson, C.J. and Negy, C. 2018. Social media usage and mental health amongst adolescents. *Psychiatric Quarterly*, 89(2), 307–314.

Best, P., Manktelow, R., and Taylor, B. (2014). A systematic review: social media, online communication and teenagers' mental health. *Children and Youth Services Review*, 4(1), 27–36.

Beyens, I., Frison, E. and Eggermont, S. 2016. I don't want to miss a thing: Adolescents' fear of missing out and its relationship to adolescents' social needs, Facebook use, and Facebook-related stress. *Computers in Human Behaviour*, 6(4), 1-8.

Bhattacharjee, A. 2012. *Social Science Research: Principles, Methods and Practices*. 3rd ed. Tampa Bay: USF Tampa Bay Open Access Textbooks Collection. Available at: <http://scholarcommons.usf.edu/oatextbooks/3> [27 April 2024].

Bhatt, A. and Arshad, M. 2016. Impact of WhatsApp on youth: A sociological study. *IRA-International Journal of Management & Social Sciences*, 4(2),376-382.

Bhanye, J., Shayamunda, R. and Tavirai, R.C. 2023. *Social Media in the African Context*. In: *The Palgrave Handbook of Global Social Problems*. Cham: Palgrave Macmillan.

Bishop, M. 2019. Healthcare social media for consumers. In: M. Edmunds, C. Hass, E. Holve, eds. *Consumer informatics and digital health: solutions for health and health care*. Cham: Springer, pp. 61–86.

Blagov, P.S., and Kolden, G.G. 2020. Unconscious Processes in Psychodynamic Therapy: Evidence and Implications. *Psychotherapy Research*, 30(4), 471–485.

Blease, C. 2015. Too many friends, less likes? Evolutionary psychology and Facebook depression. *General Psychology*, 1(9), 1-13.

BlueMagnet, 2019. A review of social media statistics in 2015, [online], Available at: <https://www.bluemagnet.co.za/resources/blog/the-state-of-social-media-in-south-africa-2015/> [28 October 2025].

Bornstein, R. 2023. The Psychodynamic Perspective. In: R. Biswas-Diener and E. Diener, eds. *Noba textbook series: psychology*. IL: Noba Publishing. Available at: <http://noba.to/zdemy2cv> [31 July 2024].

Botha, A. 2018. Social media and politics in South Africa: A review of the literature, *Journal of African Media Studies*, 10(1), 35-51.

Boyd, D. and Ellison, N. 2007. Social networking sites: definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230.

Brennan, P.A., Gordon, R.P., and Wallace, K.L. 2016. *Ethics in Research: A Guide for the Social and Health Sciences*. London: Sage.

Brown, B.B., Lohr, S.L. and Tracy, A.J. 2020. The transition to young adulthood: A review of research on adolescent-to-adult transitions. *Journal of Youth and Adolescence*, 49(1), 13-25.

Budree, A., Fietkiewicz, K., and Lins, E. 2019. Investigating the usage of social media platforms in South Africa. *The African Journal of Information Systems*, 11(4), 1-19.

- Burns, R.B. 2000. *Introduction to Research Methods*. London: Sage.
- Burns, J. and Grove, M. 2003. *Research design and methodology*. London: Sage.
- Cairns, K., Yap, M., Pilkington, P. and Jorm, A. 2014. A systematic review and meta-analysis of longitudinal studies: risks and protective factors for depression that adolescents can modify. *Journal of Affective Disorders*, 16(9), 61-75.
- Caplan, S. 2002. Problematic internet usage and psychological well-being: Development of a theory-based cognitive behaviour measurement instrument. *Computers in Human Behaviour*, 18(5),553-575.
- Carr, C. and Hayes, A. 2015. Social media: defining, developing and divining. *Atlantic Journal of Communication*, 23(1), 46-65.
- Carpenter, L.M. and Stryker, J.E. 2018. Understanding voluntary participation in health programs: A systematic review. *Social Science & Medicine*, 1(1),166-175.
- Carter, B., Rees, P., Bhattacharjee, D., and Paradkar, M. 2016. Association between portable screen-based media device access or use and sleep outcomes: a systematic review and meta-analysis. *JAMA Paediatrics*, 170(12), 1202–1208.
- Carter, S. M., Greenhalgh, T., Haines, A., and Crichton, F. 2018. What studies do research ethics committees review? A survey of the literature. *Journal of Medical Ethics*, 44(2), 127–134.
- Centres for Disease Control and Prevention. 2021. About mental health, [Online], Available at: <https://www.cdc.gov/mentalhealth/learn/index.htm> [03 June 2023].
- Chan, S. and Leung, M. 2016. A structural equation model of WhatsApp's addiction, emotion regulation, personality, academic performance decrement, and social connection of WhatsApp's attitude. In: *Singapore Conference of Applied Psychology*. New York: Springer, pp. 93-106.
- Chen, Y.F. and Katz, J.E. 2009. Extending family to school life: College students' use of the mobile phone. *International Journal of Human-Computer Studies*, 67(2), 179-191.
- Cialdini, R.B. 2007. *Influence: The Psychology of Persuasion*. New York: HarperCollins.
- Claydon, L. 2015. Rigour in quantitative research. *National Library of Medicine*, 29(47), 43–48.
- Cohen, J., Foulkes, A. and Shier, H. 2017. Informed consent in social research: A review of the literature. *Journal of Empirical Research on Human Research Ethics*, 12(2), 103-115.

Creswell, J.W. 2008. Educational research: Planning, conducting, and evaluating quantitative and qualitative research (3rd ed.). Upper Saddle River: Pearson.

Creswell, W. 2009. Research design: Qualitative, quantitative, and mixed methods approaches. 3rd ed. Thousand Oaks, California: Sage.

Creswell, J.W. 2014. Research design: Qualitative, quantitative, and mixed methods approaches. California: Sage.

Crotty, M. 1998. The Foundations of Social Research: Meaning and Perspective in the Research Process. London: Sage.

DataReportal 2023. Digital 2023: Global overview report, [online], Available at: <https://datareportal.com/reports/digital-2023-global-overview-report> (07 June 2023).

DataReportal, 2015. Digital 2015: South Africa, [online], Available at: <https://datareportal.com/reports/digital-2015-south-africa?rq=south%20africa%20> (07 October 2025).

DataReportal, 2015. Digital 2023: South Africa, [online] Available at: <https://datareportal.com/reports/digital-2023-south-africa?rq=digital%202023%3A%20south> (07 October 2025).

DeFleur, M. and Ball-Rokeach, S. 1989. Mass communication theories: media dependency theory, 5th ed, California: Sage.

Denzin, N. K., and Lincoln, Y. S. 2018. The Sage handbook of qualitative research, New York: Sage.

Dhir, A., Yossatorn, Y., Kaur, P., and Chen, S. 2018. Social media fatigue and psychological well-being: a study of compulsive use, FOMO, anxiety, fatigue, and depression. *International Journal of Information Management*, 40(1), 141-152.

Dillman, D. A., Smyth, J. D., and Christian, L. M. 2020. Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method (4th ed.). Berlin: John Wiley & Sons.

Dingwall, L., Fife-Shaw, S. and McNaughton, D. 2012. Research ethics and social work: A critical approach. London: Routledge.

Duffield, J. and Spooner, K. 2018. Anonymity and online research: A review of the literature. *Journal of Empirical Research on Human Research Ethics*, 13(2), 1-13.

eMarketer 2017. Number of social media users worldwide from 2010-2021, [online], Available at: <https://www.statista.com/statistics/278414/number-of-worldwide-socialnetwork-users/> [17 April 2023].

- Eskin, M., Ertekin, K., Harlak, H. and Dereboy, Ç. 2008. Prevalence of and factors related to depression in high school learners. *Turkish Psychiatry Journal*, 19(4),382-389.
- Esposito, G., 2021. Social media usage and development of psychiatric disorders in childhood and adolescence: A review. *Frontiers in Psychiatry*, 3(2),11-20.
- Fadhel, K. 2002. A Critical Evaluation Under Their Structure of Scientific Practice: Positivist Paradigm. *The Sosland Journal*, 1(2),21-28.
- Farhangpour, P., Maluleke, C. and Mutshaeni, H. 2019. Emotional and academic effects of cyberbullying on students in a rural high school in the Limpopo province, South Africa. *South African Journal of Information Management*, 21(1), 9-25.
- Faye, A., Gawande, S., Tadke, R., Kirpekar, V. and Bhave, S. 2016. WhatsApp addiction and borderline personality disorder: A new therapeutic challenge. *Indian Journal of Psychological Medicine*, 58(2), 230-237.
- Feijoo, B., Cambroner-Saiz, B., and Miguel-San-Emeterio, B. 2023. Body perception and frequency of exposure to advertising on social networks among adolescents. *EPI*, 3(2),3-18.
- Fisher, B., Gardella, J., and Teube-Tolon, A. 2016. Peer cybervictimization among adolescents and the associated internalising and externalising problems: a meta-analysis. *Journal of Youth and Adolescence*, 45(8),1727-1743.
- Fisher, J., and Lombard, C. 2006. The relationship between bullying behaviour and high school dropout. *South African Journal of Psychology*, 36(2), 21-32.
- Flory, J. and Emanuel, E.J. 2004. Interventions that cause minimal harm: Setting an agenda for empirical research. *Journal of Medical Ethics*, 30(2), 151-156.
- Fowler, F.J. 2002. Survey research methods. 3rd ed. Newbury Park, California: Sage Publications.
- Frankfort-Nachmias, C., and Nachmias, D. 2008. Research Methods in the Social Sciences (7th ed.). Worth Publishers.
- Fraenkel, J.R., Wallen, N.E. and Hyun, H.H. 2014. How to design and evaluate education research. McGraw-Hill Education.
- Frambach, J., van der Vleuten, C. and Durning, S. 2013. Quality criteria in qualitative and quantitative research. *Medical Education*, 88(4), 5-19.
- Frison, E. and Eggermont, S. 2016. Toward a typology of social support seeking on social network sites: A motivational perspective. *Journal of Adolescence*, 5(1), 22-32.

Frosh, S. 2012. A brief introduction to psychoanalytic theory. 1st ed. London: Bloomsbury Publishing.

Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y. and Chen, S. 2020. Mental health issues and social media exposure during the COVID-19 outbreak. *Journal of Health Studies*, 15(4), 1-15.

Gentzler, A., Hughes, J., Johnston, M. and Anderson, J. 2023. Which social media platforms matter and for whom? Examining moderators of links between adolescents' social media use and depressive symptoms. *Journal of Social Media*, 9(4), 1725-1748.

Gohal et al. 2023. Prevalence and related risks of cyberbullying and its effects on adolescents. *BMC Psychiatry*, 23(1), 1-15.

Grady, C., Kim, S. Y., and Obarzanek, E. 2015. The ethics of withdrawing respondents from clinical trials: A systematic review. *Journal of Clinical Epidemiology*, 68(10), 1243–1253.

Guba, E.G. and Lincoln, Y.S., 2019. Paradigms and perspectives in evaluation. In: N.K. Denzin and Y.S. Lincoln (eds.) *The SAGE handbook of qualitative research*. 5th ed. (pp. 183-224). London: Sage Publications.

Gumede, V. 2003. The Digital Divide and Socioeconomic Inequality in South Africa. *Journal of South African Studies*, 29(2), 291-308.

Gupta, R. and Sharma, S. 2019. Fear of missing out: A brief overview of origin, theoretical underpinnings and relationship with mental health, *World Journal of Clinical Cases*, 9(19), 4881–4889.

Hall, A., Dominguez, J., and Mihailova, T. 2022. Interpersonal media and face-to-face communication: relationship with life satisfaction and loneliness. *Journal of Happiness Studies*. Available at: <https://doi.org/10.1007/s10902-022-00581-8>.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., and Tatham, R.L. 2010. *Multivariate data analysis*. Pearson Education.

Hanprathet, N., Manwong, M., Khumsri, J., and Yongyeun, R. 2015. Facebook addiction and its relationship with mental health among Thai high school students. *Journal of the Medical Association of Thailand*, 98(3), 81-90.

Hardy, B. W. and Castonguay, J. 2018. The moderating role of age in the relationship between social media use and mental well-being: An analysis of the 2016 General Social Survey. *Computers in Human Behaviour*, 85, 282-290.

Hassan, M. and Al-Shaikh, S. 2022. The Role of Descriptive Research in Understanding Social Phenomena, *Journal of Social Science Research*, 45(3), 150-165.

Hasinoff, A. 2013. Sexting as media production: Rethinking social media and sexuality. *New Media & Society*, 15(1), 49-65.

Ho, S. S., Liao, Y. and Rosenthal, S. 2015. Applying the theory of planned behaviour and media dependency theory: predictors of public pro-environmental behavioural intentions in Singapore. *Environmental Communication*, 9(1), 77-99.

Hoare, E., Milton, K., Foster, C. and Allender, S. 2016. A systematic review: the relationship between sedentary behaviour and mental health issues among teenagers. *International Journal of Behavioural Nutrition and Physical Activity*, [online] Available at: <https://doi.org/10.1186/s12966-016-0432-4> [Accessed 05 February 2024].

Hochberg, Z. and Konner, M. 2020. Emerging Adulthood, a Pre-adult Life-History Stage. *Frontiers in Endocrinology*, pp.10. <https://doi.org/10.3389/fendo.2019.00918>.

Holland, G. and Tiggemann, M. 2016. A systematic review of the impact of the use of social networking sites on body image and disordered eating outcomes. *Body Image*, 17(1), 100-110.

Huang, C. 2021. Time spent on social network sites and psychological well-being: A meta-analysis. *Computers in Human Behaviour*, 12(9), 106-159.

Huberman, B. 2010. Predicting the future of social media. In: *IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology*, 1(2), 492–499.

Huesmann, L.R. and Eron, L.D. 1986. The stability of aggression over time: A review of the evidence. *Aggressive Behaviour*, 12(4), 251-264.

Hugues, S., and Lewis, R. 2020. Frequent use of social networking sites is associated with poor psychological functioning among children and adolescents. *Cyberpsychology, Behaviour, and Social Networking*. <https://doi.org/10.1089/cyber.2015.0055>

Hunt, M.G., Marx, R., Lipson, C., and Young, J. 2018. No more FOMO: limiting social media decreases loneliness and depression. *Journal of Social and Clinical Psychology*, 37(10), 751–768.

Hussain, Z., and Griffiths, M. 2018. A systematic review of recent large-scale studies: problematic social media use and psychiatric disorders. *Frontiers in Psychiatry*, 9(2), 1-19.

Ivie, E., Pettitt, A., Moses, L. and Allen, N. 2020. A meta-analysis of the relationship between teenagers' social media use and depressive symptoms. *Journal of Affective Disorders*. 5(2), 19-35.

Johnson, R. B., and Christensen, L. 2020. Educational Research: Quantitative, Qualitative, and Mixed Approaches (7th ed.). London: Sage.

Kakkar, A., Ahuja, D. and Dahiya, R. 2014. The influence of internet addiction on the academic performance and mental health of students. *Scholarly Research Journal for Interdisciplinary Studies*, 3(2), 1152-1159.

Kane, M. T. 2020. Validity and Validation. In Educational Measurement (4th ed.), edited by R. L. Brennan, Handbooks of Measurement. New York: Routledge.

Karim, F., Oyewande, A., Abdalla, L., Chaudhry, R. and Khan, S. 2020. A systematic review: social media usage and its relationship to mental health. *Cureus*, 12(6), 8-27.

Keles, B., McCrae, N. and Grealish, A. 2019. A systematic review: the influence of social media on depression, anxiety and psychological issues. *International Journal of Adolescence and Youth*, 25(1), 79-93.

Kelley, K., and Maxwell, S. E. 2019. Sample Size Planning for Statistical Power and Precision. New York: Springer.

Kennedy, K. 2019. Positive and negative effects of social media on adolescent well-being [Thesis]. Minnesota State University.

Kerlinger, E. 1979. A conceptual approach: behavioural research. New York: Rinehart & Winston.

Kessler, R., Amminger, G., Aguilar-Gaxiola, S., Alonso, J., Lee, S. and Üstün, T. 2007. A review of recent literature: age of onset of mental health issues, *Current Opinion in Psychiatry*, 20(4), 399–404.

Khalaf, A.M., Alubied, A.A., Khalaf, A.M. and Rifaey, A.A. 2023. The impact of social media on the mental health of adolescents and young adults: A systematic review. *Cureus*. Available at: <https://doi.org/10.7759/cureus.42990>

Khan, N. and Khan, M. 2021. A bibliometric analysis on peer reviewed literature on smartphone addiction and future research agenda. *Asian Pacific Journal of Business Administration*, 14, 199-201.

Khuzwayo, T., Taylor, J. & Connolly, C., 2018. High risk of suicide among high-school learners in uMgungundlovu District, KwaZulu-Natal province, South Africa. *SAMJ: South African Medical Journal*, 108(6), pp. 456-459.

- Kim, S., and Lee, J. 2021. Understanding Media Effects Through Dependency Theory in the Digital Age. *Communication Theory*, 31(2), 165-184.
- Kim-Cohen, J., Caspi, A., Moffitt, T., Harrington, H., Milne, J., and Poulton, R. 2003. Prior juvenile diagnosis in adults with mental health issues: Developmental follow back of a prospective longitudinal cohort. *Archives of General Psychiatry*, 60(7), 709-717.
- Király, O., Potenza, M.N., Stein, D.J., King, D.L., Hodgins, S., Saunders, J.B., and Demetrovics, Z. 2020. Problematic internet use and its relationship with symptoms of depression and anxiety in adults: A systematic review. *Journal of Behavioural Addictions*, 9(3), 541-553.
- Kirsch, G. and Sullivan, P.A. 1992. *Methods and Methodology in Composition Research*. Carbondale, IL: SIU Press.
- Koh, K.T., Lee, S.Y. and Lee, J.H. 2017. Ethical considerations in conducting online survey research. *Journal of Educational Technology Development and Exchange*, 9(1), 1-15.
- Kohut, Z. 2017. Ethical considerations in research with vulnerable populations: A systematic review. *Journal of Empirical Research on Human Research Ethics*, 12(2), 133-146.
- Kothari, C.R. 1990. *Research methodology: methods and techniques*. New Delhi: New Age International.
- Kowalski, RM, Giumetti, GW, Schroeder, AN and Lattanner, M.R. 2014. Cyberbullying: A review of the legal, school, and policy implications, *Social and Legal Studies*, (23)1, 63–83.
- Kreuter, M.W., Brennan, L., and Clark, E.M. 2017. Understanding voluntary participation in health research: A systematic review, *Social Science & Medicine*. 17(6), 144–153.
- Kristensen, N.R., and Madsen, M.S. 2021. The Effectiveness of Self-Administered Questionnaires in Large-Scale Public Health Surveys, *Journal of Public Health Research*, 10(3), 245-253.
- Kross, E, Verduyn, P, Demiralp, E, Park, J, Lee, D, Lin, N., and Ybarra, O. 2013. Facebook use predicts declines in subjective well-being in young adults, *PloS One*, 8 (8),69-84.
- Krosnick, J. A., and Presser, S. 2020. *Question and Questionnaire Design*. In: *Handbook of Survey Research*. 2nd Edition. London: Routledge.
- Kumar, R. 2011. *Research methodology: A step-by-step guide for beginners*. 3rd ed. London: Sage Publications.

- Kuss, D.J. and Griffiths, M.D. 2017. Social networking sites and addiction: Ten lessons learned. *International Journal of Environmental Research & Public Health*, 14(3), 311-321.
- Latikka, R., Koivula, A., Oksa, R., Savela, N. and Oksanen, A. 2022. Loneliness and psychological distress before and during the COVID-19 pandemic: association with social media identity bubbles. *Social Science & Medicine*, 29(3),11-467.
- Lenhart, A., Smith, A., Anderson, M., Duggan, M. and Perrin, A. 2015. Teens, technology, and friendships, [online], Available at: <http://www.pewinternet.org/2015/08/06/teens-technology-and-friendships/> [05 September 2023].
- Levenson, J.C., Shensa, A., and Sidani, J.E. 2021. Sleep and electronic device use in adolescents and young adults: A systematic review. *Journal of Behavioural Addictions*, 10(3),565–579.
- Levy, P.S. and Lemeshow, S. 2008. Sampling of populations: methods and applications. Berlin: John Wiley & Sons.
- Li, J., Lau, J., Mo, P., Su, X., Tang, J., Qin, Z. and Gross, D. 2017. Insomnia partially mediated the relationship between excessive internet use and depression in high school learners in China. *Journal of Behavioural Addictions*, 7(4),554–563.
- Liang, H., Flisher, A. and Lombard, C. 2007. Bullying, violence, and risk behaviour in South African school students. *Child Abuse and Neglect*, 31(2), 161–171.
- Lin, Y., Sidani, J., Shensa, A., Radovic, A., Miller, E., Colditz, J., Hoffman, B., Giles, L., and Primack, B. 2016. The relationship between social media use and depression among United States young adults in the United States. *Depression and Anxiety*, 33(4), 323–331.
- Liu, C., Luo, W., Wang, C., Cheong-lao, A., and Xia, Y. (2024). The impact of social media on children’s mental health: A systematic scoping review. *Healthcare*, 12(23),23-91.
- Liu, D. and Yu, X. 2013. Lonely people are not lonely on social networking sites: A portrait of the Lonely Facebook user. *Computers in Human Behaviour*, 29(6), 2463–2470.
- Litwin, M. 1995. Measuring Survey Reliability and Validity. In: The Survey Kit. Thousand Oaks, California: Sage.
- Louragil, I., Ahami, A., Khadmaoui, A., Aboussaleh, Y. and Lamrani, A. 2019. Behavioural analysis of adolescent students addicted to Facebook and its impact on performance and mental health. *Acta Neuropsychologica*, 17(4), 427–439.

Lukose, J., Mwansa, G., Ngandu, R. and Oki, O. 2023. Investigating the impact of social media usage on the mental health of young adults in Buffalo City, South Africa. *International Journal of Social Science Research and Review*, 6(6), 303–314.

Lynn, P. 2019. The advantages and disadvantages of implicitly stratified sampling. *Methods, Data, Analysis: A Journal for Quantitative Methods and Survey Methodology (MDA)*, 13(2), 253–266.

Maes, C. and Vandenbosch, L. 2023. Adolescent girls' Instagram and TikTok use examining relations with body image-related constructs over time using random intercept cross-lagged panel models. *Body Image*, [online], Available at: <https://doi.org/10.1016/j.bodyim.2022.04.015> [08 July 2024].

Mackenzie, N. and Knipe, S. 2006. Research paradigms, methods and methodology. *Issues in Educational Research*, 1(6), 1-15.

Madziva, N., Musuka, G., Chitungo, I., Murewanhema, G., Phiri, R., and Dzinamarira, F. 2022. The role of social media during the COVID-19 pandemic: Salvaging its 'power' for positive social behaviour change in Africa, *Health Promot Perspect*, 12(1), 22–27.

Meltwater. 2024. South African Digital & Social Media Statistics 2025. Available: <https://www.meltwater.com/en/blog/social-media-statistics-south-africa?form=MG0AV3> [17 October 2025].

McCall, H.A. 2021. Social Media Usage and Psychological Well-Being in Adolescents: A Comparison Among Demographics [Thesis]. Utah State University.

McCrae, N., Gettings, S. and Purssell, E. 2017. A systematic review: social media and depression in childhood and adolescence. *Adolescence Research Review*, 10(1), 53-61.

Marengo, D., Longobardi, C., Fabris, M.A. and Settanni, M. 2021. The role of social media features in perceived social support and well-being during COVID-19. *International Journal of Environmental Research and Public Health*, 18(9), 4-11.

Marino, C., Gini, G., Vieno, A. and Spada, M. 2018. The correlation between problematic Facebook use, psychological disorders, and the well-being of adolescents. *Journal of Adolescence*, 22(6), 274–282.

Miller, R. 2023. The role of abstract reasoning in scientific theory formation. *Journal of Philosophy and Science*, 12(3), 45-62.

Mitchell, S. A., and Black, M. J. 1995. Freud and beyond: A history of modern psychoanalytic thought. New York: Basic Books.

- Mlisa, L.M., Ward, C.L., Flisher, A.J. and Lombard, C. 2008. Bullying at rural high schools in the Eastern Cape Province, South Africa: Prevalence and risk and protective factors at school and in the family. *Journal of Psychology in Africa*, 18(2), 261–268.
- Moyo, M., and Chikafa, M. 2021. Social media and mobile communication in South Africa: A case study of WhatsApp usage among youth. *African Journal of Information and Communication*, 31(2), 85-102.
- Mullen, L., MacQuillan, N. and Madden, M.P. 2019. The ethics of data sharing in social media research: A systematic review. *Journal of Empirical Research on Human Research Ethics*, 14(2), 147-162.
- Murthy, S.N. and Bhojanna, U. 2009. *Business Research Methods*. 2nd ed. New Delhi: Excel Books India.
- Nagaiah, A. and Ayyanar, H. 2016. *Software for Data Analysis in SPSS: An overview*.
- Nesi, J. and Prinstein, M. 2015. Using social media for social comparison and feedback-seeking: Gender and popularity moderate associations with depressive symptoms. *Journal of Abnormal Psychology*, 124, 1427–1438.
- Nesi, J. 2020. The effects of social media on youths' mental health: challenges and opportunities. *North Carolina Medical Journal*, 81(2), 116-121.
- Neuman, W.L. 2014. *Social research methods: Qualitative and quantitative approaches*. New York: Pearson Education.
- Neurath, O. 1973. The scientific conception of the world: The Vienna Circle. In: R. Cohen, ed., *Empiricism and sociology*. Boston. Pearson Education.
- Ndlela, T., and du Toit, A. 2014. Internet and Social Media Penetration in South Africa: A Historical Perspective. *South African Journal of Information Management*, 16(1), 1-8.
- Ndlovu, N., and Mthembu, N. 2022. Mobile internet access and social media use among South African youth: A case study in Durban. *African Journal of Information and Communication Technology*, 16(1), 45-60.
- Nkwanyana, B.P., 2025. Psycho-social effects of cyberbullying in selected secondary schools, KwaZulu-Natal, South Africa. *Interdisciplinary Journal of Education Research*, 7(s1), a12. Available at: <https://doi.org/1038140/ijer-2025.vol7.s1.12> [Accessed 12 April 2026]
- Nowland, R., Necka, E. A., and Cacioppo, J. T. 2018. Loneliness and social internet use: Pathways to reconnection in a digital world? *Perspectives on Psychological Science*, 13(1), 70–87.

Oberst, U., Wegmann, E., Stodt, B., Brand, M. and Chamarro, A. 2017. Negative consequences from heavy social networking in adolescents: The mediating role of fear of missing out. *Journal of Adolescence*, 5(5), 51-60.

Oh, H. et al. 2014. Social media use and perceived social isolation among young adults in the U.S. *Social Media and Society*, 1(2), 1-12.

Ong, A. and Weiss, D. 2006. The impact of anonymity on responses to sensitive questions. *Journal of Applied Social Psychology*, 8(2), 1691-1708.

Orben, A., Dienlin, T. and Przybylski, A.K. 2020. Social media's enduring effect on adolescent well-being: A longitudinal analysis. *Journal of Youth and Adolescence*, 49(9), 1862-1878.

O'Reilly, M., Dogra, N. and Reilly, P. 2018. Is social media bad for mental health and well-being? Exploring the perspectives of adolescents. *Clinical Child Psychology and Psychiatry*, 23(4), 51-63.

Ortega, M., 2023. Time spent on Instagram and body image, self-esteem, and physical comparison among young adults in Spain: Observational study. *JMIR Formative Research*, 7, e42207. <https://doi.org/10.2196/42207> [Accessed 16 April 2026].

Pantic, I., Damjanovic, A. and Todorovic, J. 2012. A correlation between social networking sites and depression in high school learners: Behavioural psychology viewpoint. *Psychiatric Danuh*, 2(4), 90-93.

Patino, C. and Ferreira, J. 2018. Inclusion and exclusion criteria in research studies. *Revista Brasileira de Ortopedia*, 44(2), 84-91.

Paton, C. 2012. The rise of social media in South Africa: A review of the literature. *Journal of African Media Studies*, 4(2), 147-164.

Pew Research Centre 2025. Teens, social media and mental health, [online], Available at: <https://www.pewresearch.org/internet/2025/04/22/teens-social-media-and-mental-health/> (14 October 2025)

Pine, D., Cohen, E., Cohen, P., and Brook, J. 1999. Teenagers' depressive symptoms as predictors of adult depression: Moodiness or mood disorder? *American Journal of Psychiatry*, 166(1), 133-135.

Pop, L.M., Iorga, R. and Iurcov, R. 2022. Body-esteem, self-esteem and loneliness among social media young users. *International Journal of Environmental Research and Public Health*, 19(9), p.5064.

Primack, B.A., Shensa, A., Sidani, J.E., Whaite, E.O., Lin, L.Y., Rosen, D. and Miller, E. 2017. Social media use and perceived social isolation among young adults in the U.S. *American Journal of Preventive Medicine*, 53(1), 1-8.

Pruccoli, J., De Rosa, M. and Chiasso, L. 2022. The use of TikTok among children and adolescents with eating disorders: experience in a third-level public Italian centre during the SARS-CoV-2 pandemic. Available at: <https://doi.org/10.1186/s13052-022-01308-4>.

Przybylski, A., Orben, A., and Weinstein, N. 2020. How much is too much? Examining the relationship between digital screen engagement and psychosocial functioning in a confirmatory cohort study. *Journal of the American Academy of Child & Adolescent Psychiatry*. 1(1), 1-19.

Przybylski, A. K., Murayama, K., DeHaan, C. R., and Gladwell, V. 2013. Motivational, emotional, and behavioural correlates of fear of missing out. *Computers in Human Behaviour*, 29(4), 1841-1848.

Rains, S. A., Wright, K. B., DeAndrea, D. C. and Taddeo, C. M. 2017. Communicating social support in computer-mediated contexts: A meta-analytic review of content analyses examining support messages shared online among individuals coping with illness. *Communication Monographs*, 84(4), 403-430.

Reece, C. 2008. The digital divide in South Africa: identifying emerging inequalities in Internet access and online public spheres. University of Cape Town. Available at: <http://hdl.handle.net/11427/10765>

Robinson, L. and Smith, M. 2022. Social Media and Mental Health. HelpGuide, [online]. Available at: <https://www.helpguide.org/articles/mental-health/social-media-and-mental-health.htm> [23 August 2025].

Roopa, S. and Menta Satya, R. 2012. Questionnaire designing for a survey. *The Journal of Indian Orthodontic Society*, 46, 37-41.

Rosenstiel, T. and Simon, L. 2008. The Experience of Media Dependency. In *The Media and the Public: "Them" and "Us" in Media Discourse*, 112–130.

Royal Society for Public Health, 2017. Social media addiction: The role of content. *Journal of Behavioural Studies*, 9(6), 64-77.

Ruggiero, T., and Gennaro, P. 2020. Media Dependency and the Contextual Variation of Media Effects. *Journal of Media Psychology*, 32(3), 123-135.

SABCNews, 2023. Two Nkomazi learners commit suicide following cyber-bullying on social media by peers. [Video] YouTube. Available at: <https://www.youtube.com/watch?v=2IT7KFJGA5c> [14 July 2025].

- Sahin, C. and Yagci, M. 2017. Social media addiction scale: validity and reliability study. *Journal of Ahi Evran University*, 1(8), 523–538.
- Sampasa-Kanyinga, H. and Lewis, R. 2015. Constant social media usage is associated with poor mental health among children and adolescents. *Cyberpsychology, Behaviour, and Social Networking*, 18(7), 380–385.
- Sapone, L., 2021. Moving fast and breaking things: an analysis of social media's revolutionary effects on culture and its impending regulation. *Duquesne Law Review*, 5(9), 362–370.
- Saravanakumar, K. and Deepa, K. 2016. A comprehensive study: privacy and security on social media. *Procedia Computer Science*, 7(8), 114-119.
- Sarman, A. and Tuncay, S. (2023). The relationship between Facebook, Instagram, Twitter, TikTok and WhatsApp/Telegram with loneliness and anger of adolescents living in Turkey: a structural equality model. *Journal of Pediatric Nursing*, 7(2), 16-25.
- Schønning, V., Hjetland, G., Aarø, L. and Skogen, J. 2020. A scoping review: social media usage and mental health among adolescents. *Frontiers in Psychology*, 1(1), 1-9.
- Schuler, H., Presser, S. and Schuman, H. 2018. The ethics of online surveys: A review of the literature. *Journal of Survey Statistics and Methodology*, 6(2), 147-164.
- Segrera, C., Magner, J. and Temple, J. 2022. Social media use and body image issues among adolescents in a vulnerable Louisiana community. *Frontiers in Psychiatry*, 13, p.1001336. Available at: <https://doi.org/10.3389/fpsy.2022.1001336>
- Seidler, Z., Wilson, M. J., Rice, S. M., Kealy, D., Oliffe, J. L. and Ogradniczuk, J.S. 2022. Virtual connection, real support? A study of loneliness, time on social media and psychological distress among men. *International Journal of Social Psychiatry*, 68(2), 288-293.
- Senekal, J., Groenewald, R., Wolfaardt, L., Jansen, C., and Williams, K. 2022. A systematic review: social media and adolescent psychological development. *South African Journal of Psychology*, 53(2), 157–171.
- Sha, P. and Dong, X. 2021. Research on adolescents regarding the indirect effect of depression, anxiety, and stress on TikTok use disorder and memory loss. *International Journal of Environmental Research and Public Health*, 1(8), 8-20.
- Shakya, H.B. and Christakis, N.A. 2017. Facebook association with compromised well-being: A longitudinal study. *American Journal of Epidemiology*, 185(3), 203–211.

- Sharma, S., Arain, M., Mathur, R., Rais, M., Nel, P., Sandhu, S., Haque, M. and Johal, J., 2013. Maturation of the adolescent brain. *Neuropsychiatric Disease and Treatment*, 1(2), 4-9.
- Shedler, J. 2019. The Evolving Role of Psychodynamic Therapy in Mental Health Treatment. *American Psychologist*, 74(2), 123–136.
- Shirley, M. 2013. The evolution of online communities in South Africa: A case study of Get Ahead, *Journal of Information Systems for Education*, 4(1), 1–12.
- Singleton, R.A. and Straits, B.C. 2010. Approaches to social research. Oxford: Oxford University Press.
- Smith, D., Leonis, T. and Anandavalli, S. 2021. Belonging and loneliness in cyberspace: impacts of social media on adolescents' well-being, *Australian Journal of Psychology*, 73(1), 12–23.
- Smith, P. et al. 2008. Cyberbullying: Its nature and impact on secondary school pupils. *Journal of Child Psychology & Psychiatry*, 49(4), 376–385.
- Soukup, P.A., 2018. Facebook: Changing the face of communication research. *Communication Research Trends*, 37(10), pp. 3-42.
- Statista, 2025. Number of internet and social media users worldwide as of February 2025, [online], Available at: <https://www.statista.com/statistics/617136/digital-population-worldwide/> [11 June 2025].
- Statista, 2021. Number of social network users worldwide from 2017 to 2025, [online], Available at: <https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/> [17 July 2024].
- Stellenbosch University, 2025. New report offers insight into SA teens' smartphone habits, [online], Available at: <https://www.sun.ac.za/english/Lists/news/DispForm.aspx?ID=11110> [11 June 2025].
- Sukamolson, S. 2007. Fundamentals of quantitative research. Language Institute, Chulalongkorn University, pp.1–20.
- Sürücü, L. and Maslakçı, A. 2020. Validity and Reliability in Quantitative Study. *BMIJ*, 8(3), 2694-2726.
- Taiwo, T. and Goldstein, S. 2006. Drug use and its association with deviant behaviour among rural adolescent students in South Africa. *East African Medical Journal*, 83(9), 500-506.

Tashakkori, A., and Teddlie, C. 2019. Mixed Methods Research: Contemporary Issues in an Emerging Field. In Handbook of Mixed Methods in Social & Behavioural Research (2) 3-50. London: Sage.

Tavakol, M., and Dennick, R. 2021. An introduction to reliability and validity in research. *Journal of Clinical and Diagnostic Research*, 15(3), 1-4

Terry, S.F., Mello, M.M. and Koenig, B.A. 2020. The risks and benefits of research on human subjects: A framework for ethical analysis. *Journal of Law, Medicine & Ethics*, 48(2), 241-253.

The Psychological Society of South Africa (PsySSA), 2019. Grade Seven Pupil Commits Suicide after Allegedly being Bullied on WhatsApp, [online], Available at: <https://www.psyssa.com/grade-seven-pupil-commits-suicide-after-allegedly-being-bullied-on-whatsapp/> [14 July 2025]

Tonder, I., Jordaan, J. and Esterhuysen, K. 2023. Self-esteem, interpersonal communication competence, and media and technology usage as predictors of loneliness among university students. *SAGE Open*, 13(1), 1-19.

Toros, F., Bilgin, N., Bugdayci, R., Sasmaz, T., Kurt, O. and Camdeviren, H. 2004. Prevalence of depression as measured by the CBDI in a predominantly adolescent school population in Turkey. *European Psychiatry*, 19(5), 264-271.

Townsend, L., Flisher, A.J., Chikobvu, P., Lombard, C. and King, G. 2008. The relationship between bullying behaviours and high school dropout in Cape Town, *South Africa*. *South African Journal of Psychology*, 38(1), 21-32.

Trochim, W., 2006. Research Methods: The Concise Knowledge Base. New York: Atomic Dog Publishing.

Twenge, J.M., Martin, G.N. and Campbell, W.K. 2018. Decreases in psychological well-being among American adolescents after 2012 and links to screen time during the rise of smartphone technology. *Emotion*, 18, 765–780.

Twenge, J., Spitzberg, B.H. and Campbell, W.K. 2019. Less in-person social interaction among Americans as modernisation erodes links to (m)others: Timing, correlates, and consequences. *Social Psychological and Personality Science*, 10(3), 352-362.

Twenge, J. M., and Martin, G. 2020. Gender differences in relation between digital media use and psychological well-being: Evidence from 3 large datasets. *Journal of Adolescence*, 79, 91–102.

UNICEF (2024), UNICEF data warehouse 2023, [online], Available at: <https://data.unicef.org> [18 October 2025].

UNICEF, 2020, COVID-19 and its implications for protecting children online, [online], Available: <https://www.unicef.org/media/67396/file/COVID19%20and%20Its%20Implications%20for%20Protecting%20Children%20Online.pdf> [18 October 2025].

Uncapher, M.R., Lin, L., Rosen, L.D., Kirkorian, H.L., Baron, N.S., and Bailey, K. 2017. Media multitasking and cognitive, neural, psychological and learning differences. *Paediatrics*, 140(2), 62–66.

Vaingankar, J. A., van Dam, A., Samari, G., Chang, S., Seow, E., Chua, S., Luo, N., Verma, S. and Subramaniam, M. 2022. Social media–driven routes to positive mental health among youth: qualitative enquiry and concept mapping study. *JMIR Mental Health*, 9(1), 32-43.

Valkenburg, P. M., Meier, A. and Beyens, I. 2021. An umbrella review: social media use and its effects on adolescents' mental health. *Current Opinion in Psychology*, 44, 58–64.

Valkenburg, P. M., Peter, J. and Schouten, A. 2006. Social networking sites and their relationship to adolescents' well-being and social self-esteem. *Cyberpsychology & Behaviour*, 9(5), 584–590.

Verduyn, P., Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J. and Kross, E. 2015. Passive Facebook usage undermines affective well-being: experimental and longitudinal evidence. *Journal of Experimental Psychology: General*, 144(2), 480–488.

Wainner, CN. 2018. Social Media Addiction and Its Implications for Communication. Chancellor's Honours Program Projects, [online], Available at: https://trace.tennessee.edu/cgi/viewcontent.cgi?article=3201&context=utk_chanhonoprj [18 October 2025].

Wambua, T.N., Muriithi, J.K. and Ikpe, R.O. 2022. WhatsApp usage and psychological well-being of students in mixed secondary schools in Masinga Sub-County, Machakos County, Machakos County-Kenya. *Journal of Popular Education in Africa*, 6(11), 41–52.

Wang, P., Wang, X., Wu, Y., Xie, X., Wang, X., Zhao, F. and Lei, L. 2018. Social media addiction and adolescents' depression: A moderated mediation model of rumination and self-esteem. *Personality and Individual Differences*, 127, 162-167.

Wangqu, X., and Chen, C. 2024. Media dependency, platform-swinging, and psychological depression among young college students in the polymedia environment. *Scientific Reports*, DOI: <https://doi.org/10.1038/s41598-024-82303-z>.

West, R. and Turner, L. 2007. Introducing communication theories: analysis and application. London: McGraw-Hill Higher Education, pp.392-409.

Whittaker, E. and Kowalski, R. 2015. Cyberbullying via social media. *Journal of School Violence*, 14, pp.11-29.

Wickramasurendra, J.M., Jagoda, D.J. and Rathnayake, R.M.L. 202). Factors influencing social media addiction among G.C.E. advanced level students in Sri Lanka: A case study in Colombo district, Sri Lanka. *Sri Lanka Journal of Social Sciences and Humanities*, 1(2), 1-11.

Wiles, R., Crow, G., Heath, S. and Charles, V. 2006. Anonymity and confidentiality. ESRC National Centre for Research Methods.

Williamson, K. 2002. Research methods for students, academics and professionals. 2nd ed. Wagga Wagga, NSW: Centre for Information Studies, Charles Sturt University.

Wigmore, I. 2023. Social media-addiction, [online], Available at: <https://www.techtarget.com/whatis/definition/social-media-addiction> [24 August 2023].

Wimmer, R.D. and Dominick, J.R. 2011. Mass media research: an introduction. 9th ed. California: Wadsworth.

Wolf, M., Sims, J. and Yang, H. 2018. Social Media? What Social Media? In: UK Academy for Information Systems Conference Proceedings, Available at: <https://aisel.aisnet.org/ukais2018/3>

Wong, S.F., Jansen, J. and Bellenger, N. 2017. Respondent withdrawal in research: A systematic review of research ethics guidelines. *Journal of Medical Ethics*, 43(2), 130-138.

Woods, H.C. and Scott, H. 2016. #Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. *Journal of Adolescence*, 5(1), 41-49.

World Health Organisation 2024. Teens, screens and mental health, [online] Available at: <https://www.who.int/europe/news/item/25-09-2024-teens--screens-and-mental-health> (Accessed: 18 October 2025).

World Health Organisation. 2018. Depression, [online] Available at: <http://www.who.int/en/newsroom/fact-sheets/detail/depression> [04 May 2023].

Wu, Y. and Hong, S. 2021. The relationship between social short-form videos and youth's well-being: it depends on usage types and content categories. *Psychology of Popular Media*, 10, 467-477.

Yang, S. and Tung, C. 2007. Comparison between internet addicts and non-addicts in Taiwanese high schools. *Computer Human Behaviour*, 23, 79-96.

Ye, S., Ho, K. K. W., and Zerbe, A. 2021. The effects of social media usage on loneliness and well-being: analysing friendship connections of Facebook, Twitter and Instagram. *Information Discovery and Delivery*, 49(2), 136-150.

Yen, C. F., Ko, C. H., Yen, J. Y., Chen, S. J., and Chen, C. S. 2022. The Epidemiology of Internet and Social Media Addiction. *Current Psychiatry Reports*, 24(4), 269–278.

Younes, F., Halawi, G., Jabbour, H., Osta, N., Karam, L., Hajj, A., and Rabbaa, Khabbaz, L. 2016. A cross-sectional study: social media addiction and its association with insomnia, depression, anxiety, stress and self-esteem in university students. *PLOS ONE*, 3(4),11-20.

Young, K. 1999. Social media addiction: signs, evaluation and treatment. *Innovations in Clinical Practice*, 1(1)17-21.

Youssef, L., Hallit, R., Kheir, N., Obeid, S., and Hallit, S. 2020. Social media use disorder and loneliness: any association between the two? Results of a cross-sectional study among Lebanese adults. *BMC Psychology*. 1(8), 56-65.

Appendix A: Research Questionnaire

CONFIDENTIAL SURVEY

Research Aim

This study aims to investigate how social media addiction affects the mental health of teenagers, particularly in a rural-based high school, Sacred Heart Secondary School. The purpose of this survey is to gather information about your social media use habits and their impact on your mental health. The results of the survey will help the researcher to better understand the relationship between social media addiction and mental health among teenagers, which will inform strategies to promote healthy social media use and mitigate the negative effects of excessive social media use on mental health.

Terms of Survey

- All information that you provide, including name and contact details, will in no way be linked to you as an individual. Your survey will be kept strictly confidential throughout the research.
- Participation in this survey is voluntary
- The questionnaire consists of a set of 5 sections, with open and closed-ended questions. Questions with an asterisk (*) are required.
- This survey will take you approximately 25-30 minutes to complete.
- Read each question carefully and take a moment to think about your answer.
- You can change your responses to each question before submitting them. Please note that you will not be able to change your response once you have pressed the submit button.
- By completing the declaration below, you give the researcher permission to use your responses, and you show that you understand the terms.



Declaration by respondent:

I hereby allow my responses to be used in this research and acknowledge that I understand the above terms of the survey

Date:.....

Signature.....

Should you require any further information or want to contact the researcher about any aspect of this study please contact Zekhethelo N. Khumalo on +27 76 829 1868 or email: 19630883@mylife.unisa.ac.za. The findings are accessible for a period of five years after the research is done.

Should you have concerns about the way in which the research has been conducted, you may contact Prof. F.O Makananise on +27 12 429 3111 or email: makanfo@unisa.ac.za, Dr. N. Mabidi on +27 12 429 3111 or email: mabidni@unisa.ac.za, or email the Chairperson of CREC: khankb@unisa.ac.za.



QUESTIONNAIRE

RESEARCH TITLE:

**Investigating the Differential Effects of Social Media Addiction on Teenagers'
Mental Health: A Study of the High School Learners in the KwaZulu-Natal
Province**

SECTION A: DEMOGRAPHIC INFORMATION

What is your age group?

- a) 13-14 Years
- b) 15-16 Years
- c) 17-18 Years
- d) 19 Years

What is your race?

- a) Black
- b) Indian
- c) Coloured
- d) White

What is your current educational level?

- a) Grade 8
- b) Grade 9
- c) Grade 10
- d) Grade 11
- e) Grade 12

What is your gender?

- a) Female
- b) Male
- c) Prefer not to disclose



SECTION B: SOCIAL MEDIA USE

Which social media platforms do you use most frequently? (Select all that apply)

- a) Facebook
- b) Instagram
- c) WhatsApp
- d) TikTok
- e) Twitter
- f) Other (please specify) _____

How many hours do you spend on social media per day?

- a) Less than 30 minutes
- b) 30 minutes to 1 hour
- c) 1-2 hours
- d) 2-3 hours
- e) More than 3 hours

Do you use social media before bed?

- a) Yes
- b) No

SECTION C: SOCIAL MEDIA ADDICTION

Do you feel anxious or stressed when you are unable to access social media?

- a) Yes
- b) No

Have you ever spent more time on social media than you intended to?

- a) Yes
- b) No

Do you feel like you need to check your social media accounts constantly throughout the day?



a) Yes

b) No

Do you feel like you are addicted to social media?

a) Yes

b) No

How do you think social media has affected your mental health?

SECTION D: IMPACT OF SOCIAL MEDIA ON MENTAL HEALTH

In the past month/s, have you experienced any of the following symptoms of depression? (Select all that apply)

a) Feeling sad or hopeless most of the day

b) Loss of interest in activities you once enjoyed

c) Changes in appetite or sleep patterns

d) Fatigue or loss of energy

e) Difficulty concentrating or making decisions

f) Other (please specify) _____

In the past month/s, have you experienced any of the following symptoms of anxiety?

(Select all that apply)

a) Feeling nervous or on edge most of the time

b) Trouble relaxing or falling asleep due to racing thoughts

c) Irritability or frustration with others or yourself

d) Difficulty concentrating or making decisions due to worry

e) Physical symptoms such as trembling or twitching when anxious

Do you feel like social media has improved or worsened your mental health? Please explain.

Have you ever experienced cyber-bullying or online harassment on social media?

a) Yes

b) No



If yes, how did it affect your mental health?

SECTION E: PERCEIVED IMPACT OF SOCIAL MEDIA ON MENTAL HEALTH

Do you think social media has a positive impact on your mental health?

- a) Yes
- b) No
- c) Undecided/Neutral

Do you think social media has a negative impact on your mental health?

- a) Yes
- b) No
- c) Undecided/Neutral

Do you think social media affects your self-esteem and body image?

- a) Yes, positively/negatively/neutral _____

ADDITIONAL COMMENTS

If you are comfortable sharing, please provide any additional information or comments about your experience with social media and its impact on your mental health.

THANK YOU

Appendix B: Consent Letter for the Learners

CONSENT TO PARTICIPATE IN THIS STUDY

Research title:

**Investigating the Differential Effects of Social Media Addiction on Teenagers’
Mental Health: A Study of the High School Learners in the KwaZulu-Natal
Province**

Researcher:

Zekhethelo Nikeziwe Khumalo

I, _____ (respondent name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions, and I am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty.

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to partake in the survey.

I have received a signed copy of the informed consent agreement.

Respondent Name & Surname

Respondent Signature.....

Date.....



Researcher's Name & Surname: Zekhethelo Nikeziwe Khumalo



Researcher's signature..... Date: 17/06/2024

Should you require any further information or want to contact the researcher about any aspect of this study please contact Zekhethelo N. Khumalo on +27 76 829 1868 or email: 19630883@mylife.unisa.ac.za. The findings are accessible for a period of five years after the research is done.

Should you have concerns about the way in which the research has been conducted, you may contact Prof. F.O Makananise on +27 12 429 3111 or email: makanfo@unisa.ac.za, Dr. N. Mabidi on +27 12 429 3111 or email: mabidni@unisa.ac.za, or email the Chairperson of CREC: khankb@unisa.ac.za.



Appendix C: Ethical Clearance Certificate



College of Human Sciences_CREC

Date: 20/09/2024

Dear: Ms Zekhethelo Nikeziwe Khumalo

NHREC Registration # : (Rec-240816-052)
Ref #: 4806
Name: Ms Zekhethelo Nikeziwe Khumalo
Student #: 19630883

Decision: Ethics Approval from 20 September 2024 to 19 September 2025

Researcher: Ms Zekhethelo Nikeziwe Khumalo

Verulam

Durban

19630883@mylife.unisa.ac.za 076-829-1868

Supervisor: Professor Fulufhelo Oscar Makananise makanfo@unisa.ac.za

Co-Supervisor: Dr Ndamulelo Innocentia Mabidi mabidni@unisa.ac.za

Investigating the Differential Effects of Social Media Addiction on Teenagers' Mental Health: A Study of High School Learners in the KZN Province.

Qualification: MA: Communication Science

Thank you for the application for research ethics clearance by the College of Human Sciences_CREC for the above-mentioned research study. Ethics approval is granted for one year.

The **high-risk application** was **reviewed** by the College of Human Sciences_CREC on **20 September 2024** in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College of Human Sciences_CREC.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date (**19 September 2025**). Submission of a completed research ethics progress report will constitute an application for renewal, for Ethics Research Committee approval.

Additional Conditions

1. Disclosure of data to third parties is prohibited without explicit consent from Unisa.
2. De-identified data must be safely stored on password protected PCs.
3. Care should be taken by the researcher when publishing the results to protect the confidentiality and privacy of the university.
4. Adherence to the National Statement on Ethical Research and Publication practices, principle 7 referring to Social awareness, must be ensured: "Researchers and institutions must be sensitive to the potential impact of their research on society, marginal groups or individuals, and must consider these when weighing the benefits of the research against any harmful effects, with a view to minimising or avoiding the latter where possible." Unisa will not be liable for any failure to comply with this principle.

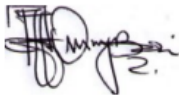
Note

The reference number 4806 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,



Prof Khatija Khan
Chair of College of Human Sciences_CRE
E-mail: khankb@unisa.ac.za



Professor Omwoyo Bosire Onyancha
Executive Dean / By delegation from the Executive Dean of College of Human Sciences_CRE
E-mail: onyanob@unisa.ac.za



KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

OFFICE OF THE HEAD OF DEPARTMENT

Private Bag X 9137, PIETERMARITZBURG, 3200

Anton Lembede Building, 247 Burger Street, Pietermaritzburg, 3201

Enquiries: Ms Phindile Duma

Email: phindile.duma@kzndoe.gov.za

Ref: 2/4/8/303

Tel: 033 392 1063

Ms Zekhethelo Nikeziwe Khumalo
P.O Box 810
VERULAM
4340

Dear Ms Khumalo

PERMISSION TO CONDUCT RESEARCH IN THE KZN DOE INSTITUTIONS

Your application to conduct research entitled: **"INVESTIGATING THE DIFFERENTIAL EFFECTS OF SOCIAL MEDIA ADDICTION ON TEENAGERS' MENTAL HEALTH: A STUDY OF HIGH SCHOOL LEARNERS IN THE KZN PROVINCE"**, in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the Intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 09 September 2024 to 31 March 2027.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Phindile Duma at the contact numbers above.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report/dissertation/thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

PINETOWN DISTRICT

Mr GN Ngcobo
Head of Department: Education
Date: 09 September 2024

GROWING KWAZULU-NATAL TOGETHER

Appendix 4: Permission letter to conduct research

PERMISSION LETTER

Research title:

Investigating the Differential Effects of Social Media Addiction on Teenagers' Mental Health: A Study of High School Learners in the KZN Province

Researcher: Zekhethelo Nikeziwe Khumalo

Request for permission to conduct research at Sacred Heart Secondary School

17/06/2024
Mrs Hlongwa
Sacred Heart Secondary School
sacredheartss3@gmail.com; +27 78 629 9152

Dear Mrs S. Hlongwa

I Zekhethelo Nikeziwe Khumalo, student number: 19630883, I am doing research under the supervision of Prof. F.O Makananise (Associate Professor) and Dr. N. Mabidi (Senior Lecturer) in the Department of Communication Science towards a Master of Arts in Communication Science at the University of South Africa. I hereby request permission to invite your grade 8-12 learners to participate in a study titled: **Investigating the Differential Effects of Social Media Addiction on Teenagers' Mental Health: A Study of High School Learners in the KZN Province**

The aim of the study is to investigate how social media addiction affects the mental health of teenagers in your school (Sacred Heart Secondary School). The reason for selecting this particular location for the study is because there is no prior research conducted on this topic within the school or surrounding area, therefore, it was deemed essential to choose this school as the first location for the study. Furthermore, the researcher is a former learner at your high school, which is also advantageous as being familiar with the school's environment and culture provides the researcher with a unique perspective. Additionally, social media addiction is a significant concern among teenagers, hence, the vested interest in understanding the challenges and concerns that my peers face today, and contributing to the conversation by exploring its effects on their mental health.

Since the emphasis of this investigation is on social media addiction's effects on the mental health of teenagers at SHSS, the researcher also requests a permission to select 200 learners from grade 8-12 to represent the population. For data collection purposes, the researcher will build a survey using SurveyMonkey, a cloud-based online survey creation platform that offers capabilities for gathering, storing, publishing, and evaluating survey data. The survey will include an introduction that goes into depth about the goals and significance of the study,

© 2021 ADOPTED FROM DEPARTMENT OF SOCIAL WORK, UNISA BY CREC
All rights reserved

32



include an introduction that goes into depth about the goals and significance of the study, personal information/ questions for the participant (e.g. age, grade, gender and race), and other questions focusing on the study.

Some of the potential risks associated with the study include exploring issues like depression, anxiety, self-esteem, and other mental health concerns which can be triggering for some individuals. Secondly, the study may involve collecting data that is emotionally charged, such as stories of bullying, or self-harm for participants who are already struggling with these issues. Some participants are likely to have had personal experiences with social media addiction or mental health issues, which might make it difficult for them to objectively participate in the study or engage with the findings.

However, the potential benefits of the study outweigh the risks. This study has numerous benefits which may include a deeper understanding of social media addiction, its causes, and its consequences on the mental health of teenagers. The knowledge gained in the study may assist other researchers or policymakers to develop effective strategies to address the issue. Also, the study can help identify early warning signs of mental health issues, such as depression, anxiety, and loneliness, which are often linked to excessive social media use. Early detection can lead to earlier intervention and treatment, reducing the risk of long-term harm. Furthermore, the study can provide guidance on how to promote healthy social media use among teenagers, such as setting limits on screen time, encouraging offline activities, and promoting digital literacy. This study may also provide participants with access to treatment and support resources to mitigate the negative impacts of social media addiction.

Additionally, parents can gain a deeper understanding of the impact of social media on their children's mental health, enabling them to monitor and set boundaries that promote healthy online habits. The knowledge gained in the study can also help them identify potential signs of social media addiction and seek professional help if necessary. For educators, they can be able to incorporate digital literacy and online safety education into their curricula, teaching students how to use social media responsibly. Lastly, the study will also benefit the community from a greater awareness of the importance of mental health and wellness among teenagers, leading to increased support for initiatives that promote overall well-being.

I understand that your school may have specific policies and procedures for conducting research, and I am willing to comply with all applicable rules and regulations. I am also happy to provide any additional information or documentation required by your school. If approved, I will ensure that all research activities are conducted in a professional and respectful manner.

Should you require any further information or want to contact the researcher about any aspect of this study please contact Zekhethelo N. Khumalo on +27 76 829 1868 or email: 19630883@mylife.unisa.ac.za. The findings are accessible for a period of five years after the research is done.

© 2021 ADOPTED FROM DEPARTMENT OF SOCIAL WORK, UNISA BY CREC
All rights reserved

33



Should you have concerns about the way in which the research has been conducted, you may contact Prof. F.O Makanise on +27 12 429 3111 or email: makanfo@unisa.ac.za, Dr. N. Mabidi on +27 12 429 3111 or email: mabidni@unisa.ac.za, or email the Chairperson of CREC: khankb@unisa.ac.za.

I look forward to hearing back from you soon.

Yours sincerely



Zekhethelo Nikeziwe Khumalo (Researcher)



PRINCIPAL
SACRED HEART
SECONDARY SCHOOL

2024 -10- 11

OAKFORD.P.O VERULAM, 4339



Appendix D: Language Editing Letter



ALBAN HOVE

Cell: 073 882 1899

Date: 15 January 2026

TO WHOM IT MAY CONCERN

CERTIFICATE OF EDITING

I, **Alban Hove**, confirm and certify that I have read and edited the entire Dissertation, **Investigating the differential effects of social media addiction on teenagers' mental health: A study of high school learners in the KZN Province**, by Zekhethelo Nikeziwe Khumalo, student number 19630883, submitted in fulfilment of the requirements for the degree of Master of Arts in Communication Science, University of South Africa.

Zekhethelo Nikeziwe Khumalo was supervised by Professor F.O. Makananise and co-supervised by Dr N.I. Mabidi.

I am a PhD candidate at UJ and holder of M.Ed degree in Language Education (English). I am qualified to edit such a dissertation for cohesion and coherence. The views expressed herein, however, remain those of the researcher/s.

Yours sincerely

A handwritten signature in blue ink that reads "Alban Hove". The signature is written in a cursive style and is enclosed within a hand-drawn blue oval.

Alban Hove (PhD candidate – UJ, M.Ed -English, PGDE, PGCE, BA)

Appendix E: Turnitin Report