



بسم الله الرحمن الرحيم

Napata College
Faculty of Medicine and Surgery

**Prevalence and Effect of Social Media Use on Study Concentration among
Medical Students at Napata College, Sudan (2025–2026)**

A thesis Submitted in Partial Fulfillment for the Requirements
of BSc degree in Medicine

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الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

(يَا أَيُّهَا الَّذِينَ آمَنُوا قُوا أَنْفُسَكُمْ وَأَهْلِيكُمْ نَارًا وَ قُودُهَا النَّاسُ
وَالْحِجَارَةُ)

سورة التحريم، الآية (6)

Dedication

***To the first heartbeat... To the one with whose eye's life began every morning ‘
To the one who planted the seeds of dreams within me and watered them with
love and prayer ‘***

***To the one who taught me that giving doesn't expect anything in return, and that
patience works miracles...***

To my mother, the lady of women, and the crown of my life.

To the mountain that never wavered despite the storms of the world ‘

***To the one who taught me that manhood is a matter of stances, and that dignity
cannot be bought ‘***

To the one who turned his fatigue into a ladder to my ambition...

To my father, my first support and my steadfast rib.

To those who were not just brothers, but homelands that inhabited me ‘

***Their laughter was a balm, their stances were pride, and their hearts were a
refuge when the world became narrow...***

To my brothers, the silent heroes of my story.

***To those who planted flowers of encouragement in my path and plucked wisdom
from their time ‘***

***To my teachers, and everyone who passed by my path and left an unforgettable
impression...***

And finally...

***To myself, who resisted, stayed up, was afraid, and persevered... I dedicate this
effort, drenched in fatigue and crowned with pride...***

Because I deserved it.

Acknowledgments

Praise be to God, first and last, who has guided and aided me until I completed this work.

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You have a place in my heart that words cannot fill. Thank you for being the light in the dark and the hand that pushed me toward the finish line.

الملخص:

الخلفية:

أصبحت وسائل التواصل الاجتماعي جزءاً أساسياً من الحياة اليومية لطلاب الجامعات، خاصة في مجال التعليم الطبي. وعلى الرغم من دورها في تسهيل التعلم والتواصل، إلا أن الاستخدام المفرط لها قد يؤثر سلباً على الوظائف المعرفية مثل الانتباه والتركيز أثناء الدراسة.

الهدف:

هدفت هذه الدراسة إلى تقييم مدى انتشار استخدام وسائل التواصل الاجتماعي وتأثيره على التركيز الدراسي بين طلاب الطب في كلية نبتة.

المنهجية:

أُجريت دراسة وصفية مقطعية شملت 203 من طلاب الطب في كلية نبتة. تم جمع البيانات باستخدام استبيان منظم ذاتي التعبئة شمل الخصائص الديموغرافية وأنماط استخدام وسائل التواصل الاجتماعي ($p < 0.05$) ومستوى التركيز الدراسي. تم تحليل البيانات إحصائياً، مع اعتبار مستوى الدلالة الإحصائية.

النتائج:

أظهرت النتائج أن استخدام وسائل التواصل الاجتماعي كان شائعاً بشكل كبير بين الطلاب، حيث أفاد معظم المشاركين باستخدامها يومياً ولمدة تزيد عن ثلاث ساعات يومياً. كما تبين أن نسبة كبيرة من الطلاب يستخدمون وسائل التواصل أثناء المذاكرة، مما يعكس انتشار ظاهرة تعدد المهام. وأفاد العديد من المشاركين بوجود صعوبة في الحفاظ على التركيز لفترات طويلة، بالإضافة إلى تعرضهم لمقاطعات متكررة بسبب الإشعارات. كما أظهر التحليل الإحصائي وجود علاقة عكسية ذات دلالة إحصائية بين مدة استخدام ($p < 0.05$) ووسائل التواصل الاجتماعي ومستوى التركيز الدراسي.

الخلاصة:

يُعد استخدام وسائل التواصل الاجتماعي واسع الانتشار بين طلاب الطب، وله تأثير ملحوظ على التركيز الدراسي. وعلى الرغم من فوائده التعليمية، فإن الاستخدام المفرط وغير المنظم قد يؤدي إلى زيادة تشتت وانخفاض القدرة على التركيز.

Abstract:**Background:**

social media has become an essential component of daily life among university students, particularly in medical education. While it offers opportunities for learning and communication, excessive use may negatively affect cognitive functions such as attention and study concentration.

Objective:

This study aimed to assess the prevalence of social media use and its effect on study concentration among medical students at Napata College.

Methods:

A descriptive cross-sectional study was conducted among 203 medical students at Napata College. Data were collected using a structured, self-administered questionnaire covering demographic characteristics, patterns of social media use, and study concentration. Data were analyzed using statistical methods, and associations between variables were tested, with a significance level set at $p < 0.05$.

Results:

The findings revealed that social media use was highly prevalent among participants, with the majority reporting daily use and spending more than three hours per day on various platforms. A considerable proportion of students reported using social media while studying, indicating common multitasking behavior. Many participants experienced interruptions due to notifications and reported difficulty maintaining concentration for extended periods. Statistical analysis showed a significant negative relationship between the duration of social media use and study concentration ($p < 0.05$).

Conclusion:

Social media use is widespread among medical students and has a significant impact on study concentration. While it provides educational benefits, excessive and unregulated use may lead to decreased focus and increased distraction.

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CHAPTER ONE

INTRODUCTION

1. Introduction

1.1 Background:

Over the past two decades, social media has evolved into an integral component of daily life, particularly among university students. Social media platforms are interactive digital applications and web-based technologies that enable users to create, share, and exchange information within virtual communities and networks. The rapid expansion of these platforms has substantially transformed communication patterns, information acquisition, and learning behaviors across higher education, including medical education [1,2]. As digital communication becomes increasingly embedded within academic environments, students are no longer passive recipients of information but active participants in knowledge exchange and collaborative learning.

Medical students represent a population with particularly high levels of engagement in social media due to the demanding nature of their academic programs and their continuous need for rapid access to educational resources, medical information, and peer collaboration. Platforms such as YouTube, Facebook, Instagram, and Twitter are widely utilized by medical and health sciences students for both academic and non-academic purposes [3,4]. Many students rely on online tutorials, recorded lectures, discussion forums, and professional communities to supplement traditional classroom teaching. Additionally, social media provides opportunities for peer-assisted learning, sharing of clinical experiences, and exposure to global medical discussions that may not be readily available within local academic settings.

Despite the educational benefits of social media—including support for self-directed learning, facilitation of collaborative education, and access to up-to-date medical knowledge—concerns have emerged regarding its potential negative effects on cognitive performance. Excessive or unregulated use of social media has been associated with increased distraction, reduced attention span, and diminished study concentration, all of which are essential components of academic success in medical education [5,6]. The constant availability of online content may encourage habitual checking behaviors and fragmented study patterns, potentially interfering with deep learning and long-term knowledge retention.

Study concentration represents a fundamental determinant of effective learning outcomes, particularly within medical training where students must process complex theoretical concepts,

develop clinical reasoning skills, and retain extensive volumes of information. Continuous exposure to notifications, multimedia content, and online interactions may disrupt sustained attention and encourage digital multitasking behaviors, potentially impairing students' concentration during lectures and independent study sessions [7]. Over time, these interruptions may reduce students' ability to maintain cognitive focus and engage in prolonged analytical thinking, which are essential competencies in medical education.

Furthermore, the dual nature of social media as both an educational tool and a source of distraction creates a complex learning environment for medical students. While some students demonstrate effective self-regulation and use social media strategically to enhance learning, others may experience difficulty managing their online activities, leading to reduced productivity and increased academic stress. The variability in individual usage patterns highlights the importance of understanding not only how frequently students use social media but also the context and purpose of their engagement. Exploring students' perceptions, habits, and self-reported experiences may provide valuable insight into how digital behaviors influence academic focus and performance.

This study aims to determine the prevalence of social media use among medical students at Napata College and to examine its impact on their study concentration. The study seeks to explore patterns of social media engagement, identify the extent of its use for academic and non-academic purposes, and evaluate the relationship between frequency of use and students' ability to maintain focus during lectures and independent study sessions

1.2 Justification:

The necessity of this study stems from the critical need for sustained concentration in medical education, where students must master complex clinical skills and manage vast amounts of information. While global research indicates a significant rise in digital distractions, there is a notable lack of context-specific data within the Sudanese medical education system, specifically at Napata College. Providing local evidence is essential for academic administrators to develop targeted strategies that promote balanced digital habits, ensuring that social media serves as an educational asset rather than a cognitive barrier.

1.3 Problem Statement:

Medical students at Napata College are increasingly integrating social media into their daily routines for both academic and personal purposes. However, the boundary between "educational use" and "digital distraction" is often blurred, leading to fragmented study patterns and reduced deep-learning capabilities. Despite the demanding nature of the medical curriculum which requires high levels of cognitive focus, the specific impact of these platforms on the concentration levels of students in our local environment remains unexamined. This study addresses this knowledge gap by investigating how social media usage patterns correlate with study concentration among medical students at Napata College.

1.4 Objectives:

1.4.1 General Objective:

To study the Prevalence and Effect of Social Media Use on Study Concentration among Medical Students at Napata College, Sudan 2026.

1.4.2 Specific Objectives:

- 1.To identify the most commonly used social media platforms and assess the frequency and duration of their use among medical students at Napata College.
- 2.To explore the main purposes of social media use (educational and non-educational) among medical students.
- 3.To examine the relationship between social media use and students' study concentration levels.
- 4.To provide recommendations for promoting balanced and effective use of social media within medical education at Napata College.

CHAPTER TWO

LITERATURE REVIEW

2.Literature Review

2.1 Prevalence of Social Media Use among Medical Students

Over the past two decades, social media has become an essential component of modern communication and information exchange. University students, particularly those enrolled in medical programs, represent one of the most active groups of social media users. With the widespread availability of smartphones and internet access, medical students frequently utilize social media platforms for both academic and personal purposes. These platforms enable rapid communication, sharing of educational resources, and access to a wide range of learning materials [8].

Several studies have documented the high prevalence of social media use among medical students worldwide. A study conducted in Saudi Arabia found that more than two-thirds of medical students believed that social media plays a positive role in their learning process. Students reported using social media platforms daily to communicate with peers, share lecture materials, and review educational resources [9]. Similarly, a study conducted among health sciences students in Vietnam reported that approximately 90% of students used social media on a daily basis. The research also revealed that nearly half of the time spent on social media was related to academic activities, including accessing educational videos and participating in group discussions [10].

In many medical schools, social media has become integrated into students' learning routines. Platforms such as Facebook, WhatsApp, YouTube, and Instagram are frequently used by students to exchange notes, discuss examination topics, and collaborate on academic tasks. Among these platforms, YouTube has gained particular importance as a source of visual educational content. Many medical students rely on YouTube to watch demonstrations of clinical procedures, anatomical explanations, and simplified tutorials that complement traditional textbooks and lectures [11].

Despite these benefits, the widespread use of social media also raises concerns regarding excessive use and potential academic distraction. Many students engage with social media platforms throughout the day, often switching between academic and entertainment content. This pattern of frequent switching between tasks may disrupt study routines and reduce the ability to maintain sustained attention during learning activities [12].

Furthermore, the increasing reliance on digital communication has transformed how students interact with information. While traditional learning relied primarily on textbooks and classroom instruction, modern students increasingly depend on digital resources. Although this transformation has expanded access to knowledge, it also introduces new challenges related to information overload, digital distraction, and time management. Therefore, understanding the prevalence and patterns of social media use among medical students is essential for evaluating its potential influence on learning behavior and academic outcomes [8].

2.2 Educational Benefits of Social Media in Medical Education:

The integration of social media into educational environments has introduced new opportunities for learning and professional development. In medical education, social media platforms provide an interactive space where students can collaborate, exchange information, and discuss complex medical topics outside the traditional classroom setting. These platforms encourage peer-to-peer learning and allow students to engage in discussions that enhance their understanding of difficult concepts [13].

One of the most significant advantages of social media in medical education is its ability to facilitate collaborative learning. Students can form online study groups, share lecture materials, and discuss challenging topics in real time. Such collaboration allows learners to benefit from collective knowledge and different perspectives, which may enhance comprehension and retention of medical information [14].

Another important benefit of social media is the rapid dissemination of medical information. Healthcare knowledge is constantly evolving, and medical students must stay updated with new research findings, treatment guidelines, and clinical practices. Social media platforms enable quick sharing of academic articles, conference announcements, and educational videos, thereby helping students remain informed about recent developments in their field [15].

Social media also supports self-directed learning, which is a critical component of modern medical education. Students can independently search for information, access online tutorials, and explore additional learning resources that complement their formal curriculum. This autonomy encourages students to take greater responsibility for their own learning and helps develop lifelong learning habits that are essential for medical professionals [16].

YouTube, in particular, has become one of the most widely used platforms for medical education. Instructional videos can provide step-by-step explanations of clinical procedures, anatomical

structures, and diagnostic techniques. Visual learning through video demonstrations can significantly improve understanding, especially when compared with purely text-based materials [11].

In addition to academic benefits, social media platforms contribute to professional networking and professional identity formation. Through online communities and professional groups, medical students can interact with healthcare professionals, participate in academic discussions, and gain insights into clinical practice. These interactions can enhance students' professional development and prepare them for their future roles as healthcare providers [13].

Nevertheless, the educational value of social media largely depends on how it is used. When used intentionally and responsibly, social media can serve as a powerful educational tool. However, unregulated or excessive use may lead to negative consequences that affect students' academic focus and productivity.

2.3 Social Media Use and Study Concentration:

Although social media offers numerous educational advantages, increasing attention has been directed toward its potential negative effects on cognitive processes, particularly attention and concentration. Concentration plays a critical role in the learning process, especially in fields such as medicine where students must process complex information and retain large volumes of knowledge.

One of the primary concerns related to social media use is the constant stream of notifications, messages, and updates that can interrupt study sessions. These interruptions may reduce students' ability to maintain sustained attention on academic tasks. Frequent checking of social media platforms during study sessions can fragment attention and disrupt cognitive processing, leading to decreased study efficiency [17].

The concept of media multitasking has been widely used to explain the relationship between digital media use and reduced concentration. Media multitasking refers to the simultaneous engagement in multiple digital activities, such as studying while browsing social media or responding to messages. Research has shown that individuals who frequently engage in media multitasking often experience lower levels of cognitive control and reduced ability to filter irrelevant information [18].

Several studies have found a relationship between social media multitasking and lower academic performance. Students who frequently switch between academic tasks and social media tend to

take longer to complete assignments and often demonstrate poorer comprehension of learning materials. This is because multitasking divides cognitive resources and reduces the depth of information processing [19].

In addition, excessive social media use has been linked to increased levels of distraction and decreased self-regulation. Students who habitually check social media while studying may struggle to maintain consistent study routines. Over time, this pattern can weaken concentration skills and negatively affect academic productivity [20].

These concerns are particularly relevant for medical students, whose academic programs require prolonged periods of concentration and extensive memorization. Medical education involves mastering large amounts of theoretical knowledge as well as developing practical clinical skills. Any factor that interferes with sustained attention may therefore have important implications for academic success and professional competence.

Despite these concerns, some studies suggest that moderate and purposeful use of social media does not necessarily harm academic performance. Instead, the impact of social media on concentration may depend on factors such as duration of use, purpose of engagement, and individual time management skills. Therefore, further research is needed to better understand how different patterns of social media use influence study concentration among medical students.

Investigating this relationship in specific educational contexts, such as Napata College in Sudan, is particularly important because cultural, technological, and institutional factors may influence how students interact with digital media. Understanding these local patterns can provide valuable insights that help educators develop strategies to promote balanced and effective use of social media in medical education.

2.4 Previous Studies:

Previous research has extensively explored the prevalence of social media use among university and medical students, as well as its influence on academic behaviors, performance, and cognitive functions such as attention and concentration. The growing integration of social media into medical education has prompted researchers worldwide to examine both its educational benefits and potential negative consequences.

Several studies have demonstrated that social media has become an integral part of medical education. A systematic review by Cheston et al. [21]

highlighted the increasing use of social media platforms as tools for communication, collaborative learning, and professional development among medical students. Similarly, Alsuraihi et al. [22] reported that medical students in Saudi Arabia frequently used social media for educational purposes and perceived it as a valuable learning resource. AL Faris et al. [23] further confirmed the widespread adoption of social media among medical students and emphasized its association with academic performance, although the effects varied depending on patterns of usage. In Asian contexts, Nguyen et al. [24] found that more than 90% of health sciences students used social media daily, with a considerable proportion of usage dedicated to learning activities. The study emphasized that social media platforms provided convenient access to educational materials and facilitated peer interaction. These findings reflect the global trend toward digital learning environments in medical education. Despite these benefits, several studies have raised concerns regarding the potential negative effects of excessive social media use on academic outcomes and cognitive performance. Junco [25] found that increased Facebook use was associated with reduced academic performance and decreased study time among university students. Similarly, Kirschner and Karpinski [26] reported that students who used Facebook more frequently tended to have lower academic achievement compared to non-users. Psychological and behavioral studies have also highlighted the risks associated with excessive social media engagement. Hawi and Samaha [27] found significant associations between social media addiction and reduced academic satisfaction and performance. Rosen et al. [28] demonstrated that frequent interruptions from digital communication during academic tasks led to reduced concentration and increased task completion time. Furthermore, Ophir et al. [30] showed that individuals who frequently engaged in media multitasking had reduced cognitive control and difficulty maintaining sustained attention, which may directly affect study concentration.

In the context of modern medical education, Goh and Sander's [29] emphasized that the increased reliance on technology and social media following the COVID-19 pandemic has reshaped students' learning behaviors. While digital platforms provide opportunities for flexible and self-directed learning, they may also introduce distractions that negatively influence students' ability to concentrate during study sessions.

Overall, previous studies demonstrate that although social media can enhance communication, collaboration, and access to educational resources, excessive or unstructured use may negatively impact academic performance and study concentration. However, most of these studies were conducted in non-African settings, and there remains a lack of context-specific research examining the prevalence and impact of social media use on study concentration among Sudanese medical students. This gap highlights the importance of conducting the present study at Napata College to provide locally relevant evidence.

CHAPTER THREE

MATERIALS & METHODS

3.Methodology

3.1 Study Design:

This study will adopt a descriptive cross-sectional study design to assess the prevalence of social media use and its effect on study concentration among medical students. The independent variable in this study is social media use, which includes the frequency, duration, type of platform (e.g., Facebook, Instagram, YouTube, Twitter), and purpose of use (educational or non-educational). The dependent variable is study concentration, defined as the students' ability to maintain focus, attention, and cognitive engagement during lectures and independent study sessions. The cross-sectional approach is appropriate for examining patterns of behavior and associations between these variables at a single point in time within a defined population.

3.2 Study Area:

The study will be conducted at **Napata College**, Sudan. Napata College is a higher education institution that offers medical education programs and includes students from different academic years. The college provides a suitable academic environment for investigating students' learning behaviors, including the use of social media and its potential impact on academic concentration.

3.3 Study Population:

The study population will consist of **undergraduate medical students enrolled at Napata College** during the academic year [2026]. Students from all academic levels will be eligible to participate in order to obtain a comprehensive understanding of social media usage patterns across different stages of medical education.

3.3.1 Inclusion Criteria:

Medical students currently enrolled at Napata College.

Students who agree to participate voluntarily.

Students who complete the study questionnaire.

3.3.2 Exclusion Criteria:

Students who decline participation.

Incomplete questionnaires.

3.4 Sample Size:

The sample size for this study was calculated using the standard formula for estimating a single population proportion:

$$N = \frac{Z^2 P(1 - P)}{d^2}$$

Where:

- n = required sample size
- Z = standard normal deviate at 95% confidence level (1.96)
- P = estimated proportion of the population (0.5, due to lack of prior data)
- d = margin of error (0.05)

Substituting these values into the formula:

$$n = \frac{(1.96)^2 \times 0.5(1-0.5)}{(0.05)^2} = 384$$

Since the total population of medical students at Napata College is relatively small ($N = 429$), a finite population correction was applied using the following formula:

$$n_{adj} = \frac{n}{1 + \frac{n}{N}}$$

$$n_{adj} = \frac{384}{1 + \frac{384}{429}} \approx 203$$

Therefore, the final sample size for this study was **203 participants**.

A total sample size of **(203) medical students** was included in this study. The selected sample size is considered adequate for descriptive cross-sectional analysis and for identifying patterns of social media use and study concentration within the target population.

3.5 Sampling Technique:

A **stratified random sampling technique** will be used to ensure representation of students from different academic years. Each academic level will be treated as a separate stratum, and participants will be selected proportionally from each level using simple random sampling methods.

3.6 Data Collection Tool:

Data will be collected using a **structured self-administered questionnaire** designed based on relevant literature. The questionnaire will consist of three main sections:

1. **Demographic Information:** Age, gender, academic year.

2. **Social Media Usage:** Types of platforms used, daily duration of use, purposes of use (educational and non-educational).

3. **Study Concentration:** Questions assessing students' perceived concentration levels during studying, frequency of distraction, and multitasking behaviors related to social media use.

3.7 Data Collection Procedure:

The questionnaire will be distributed electronically by google form to eligible students at Napata College. Participants will be informed about the purpose of the study, and informed consent will be obtained prior to participation. Students will complete the questionnaire voluntarily and anonymously.

3.8 Data Analysis:

Data will be entered and analyzed using **Statistical Package for the Social Sciences (SPSS) version (23)**. Descriptive statistics such as frequencies, percentages, means, and standard deviations will be used to summarize demographic characteristics and social media usage patterns. Inferential statistical tests such as correlation analysis and chi-square tests will be conducted to assess the relationship between social media use and study concentration. A p-value of less than 0.05 will be considered statistically significant.

3.9 Ethical Considerations:

Ethical approval will be obtained from the relevant academic or institutional ethics committee prior to data collection. Participation will be voluntary, and informed consent will be obtained from all participants. Confidentiality and anonymity will be strictly maintained, and collected data will be used solely for academic research purposes.

CHAPTER FOUR

RESULTS

4.Results

Table No (4.1): Demographic characteristics of medical students at Napata College in 2026 (N=203)

Demographic characteristics		N (%)
Age		
	Less than 20	31 (15.3%)
	20-25	123 (60.8%)
	more than 25	49 (23.9%)
	Total	203 (100%)
Gender		
	Male	89 (44%)
	Female	114 (56%)
	Total	203 (100%)
Academic year		
	First	28 (13.9%)
	Second	29 (14.4%)
	Third	29 (14.4%)
	Fourth	42 (20.6%)
	Fifth	75 (36.8%)
	Total	203 (100%)

A total of 203 medical students were included in the study. The majority were aged 20–25 years 123 (60.8%), followed by those aged more than 25 years 49 (23.9%) and less than 20 years 31(15.3%).

Females constituted a slightly higher proportion of the sample 114 (56.0%) compared to males 89 (44.0%).

Regarding academic level, most participants were in the fifth year 75 (36.8%), followed by fourth year 42 (20.6%), while first 28 (13.9%), second 29 (14.4%), and third year 29 (14.4%) students were less represented.

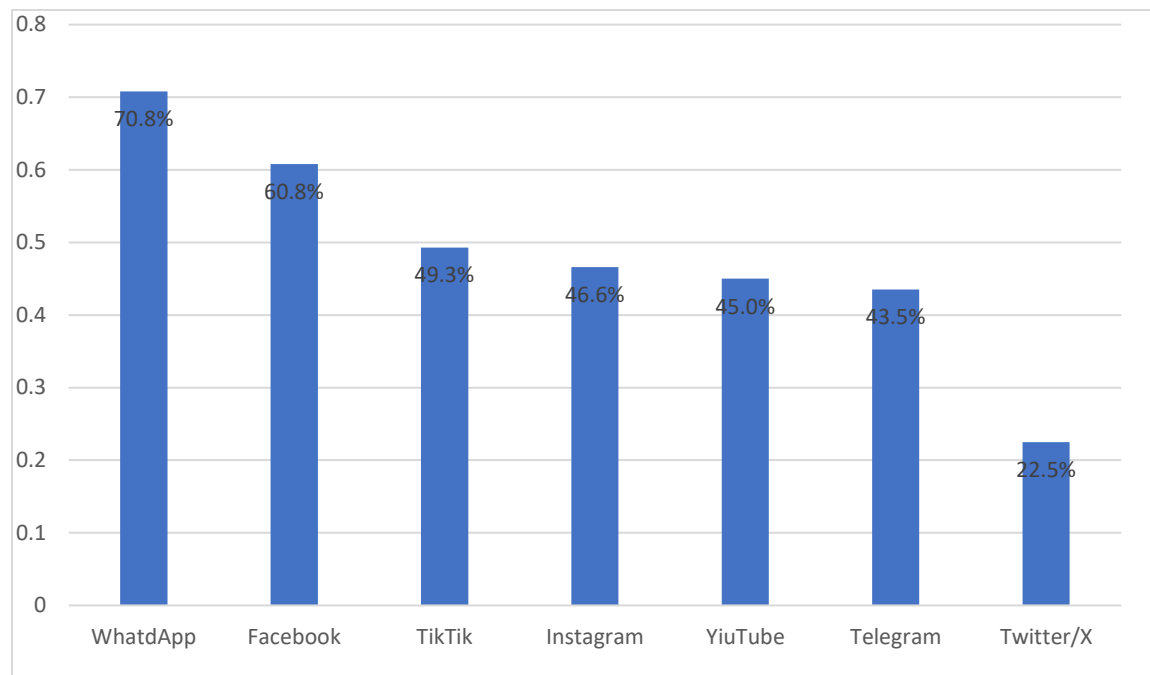


Figure No (4.1): Number of students use each social media platform at Napata College in 2026 (N=203/Multiple response allowed)

WhatsApp was the most commonly used social media platform 144 (70.8%), followed by Facebook 123 (60.8%). Approximately half of the students reported using TikTok 100 (49.3%), Instagram 95 (46.6%), and YouTube 91 (45.0%). Telegram was used by 88 (43.5%), while Twitter/X was the least utilized platform 46 (22.5%).

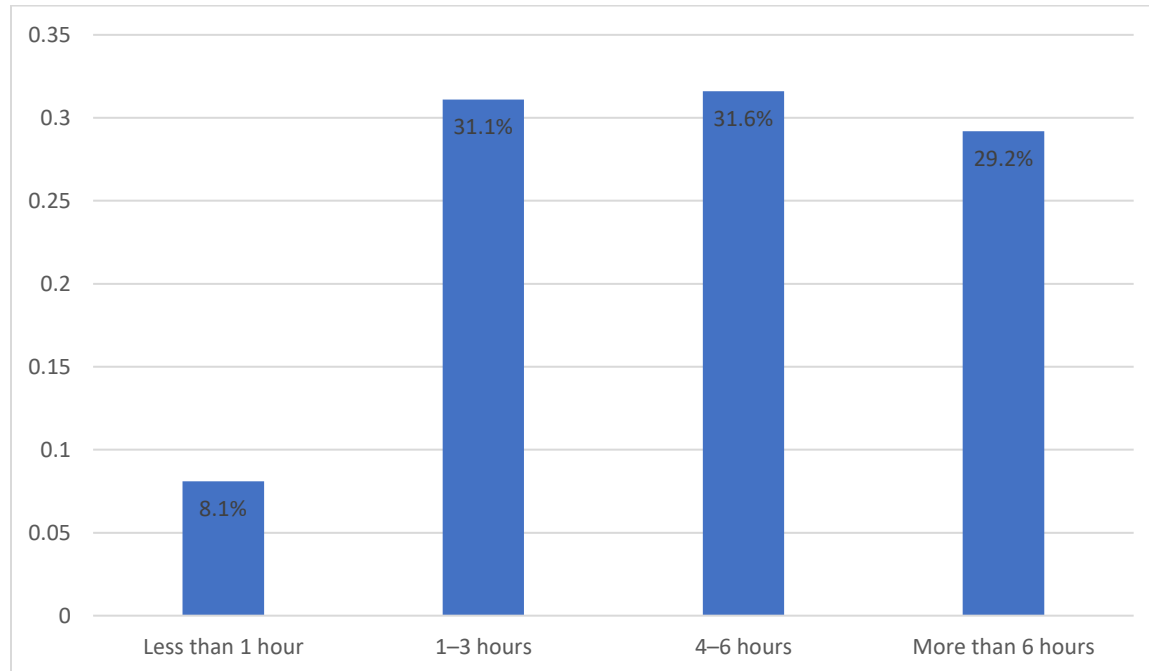


Figure No (4.2): Frequency of social media use among medical students at Napata College in 2026 (N=203)

Most students reported using social media for 4–6 hours daily 64 (31.6%) and 1–3 hours 63 (31.1%). A considerable proportion used social media for more than 6 hours 60 (29.2%), whereas only 16 (8.1%) reported using it for less than one hour per day.

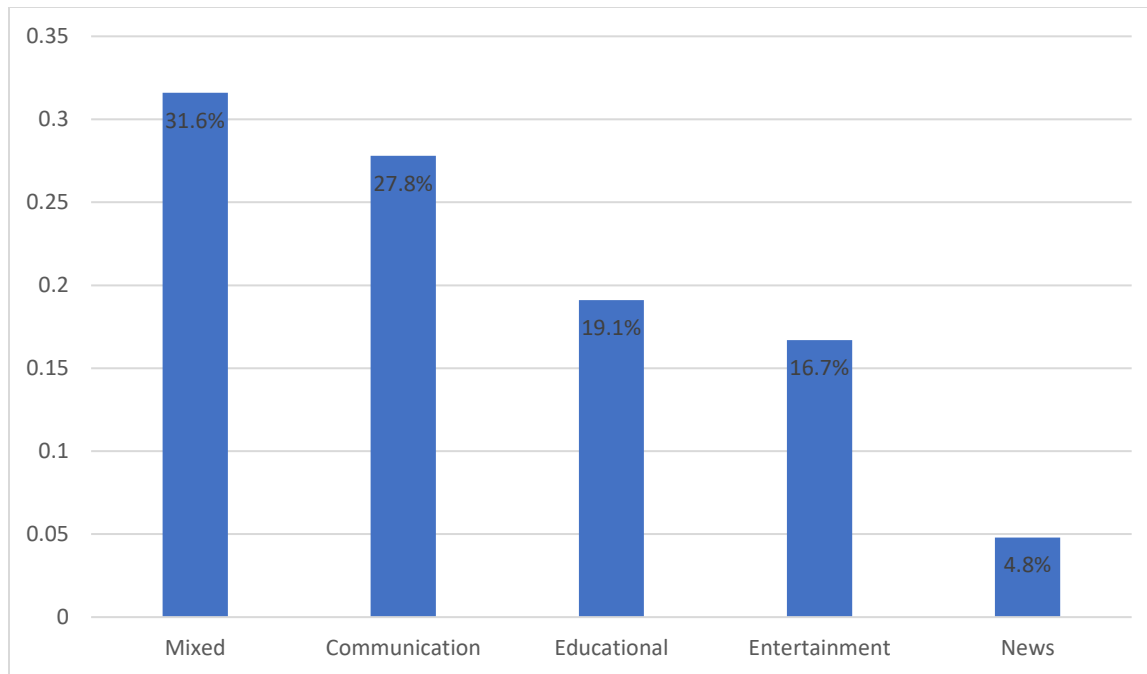


Figure No (4.3): Purposes to use social media among medical students at Napata College in 2026 (N=203)

The most common purpose of social media use among students was mixed 64 (31.6%), followed by communication 56 (27.8%). Educational use was reported by 39 (19.1%), entertainment by 34 (16.7%), and news was the least reported purpose 10 (4.8%).

Table No (4.2): Use of social media for academic purposes among medical students at Napata College in 2026 (N=203)

		N (%)
Do you use social media?		
	Yes	188 (92.8%)
	No	15 (7.2%)
	Total	203 (100%)
check social media during lectures		
	Yes	88 (43.5%)
	No	115 (56.5%)
	Total	203 (100%)
Do you use social media while studying?		
	Always	43 (21.1%)
	Often	60 (29.7%)
	Sometimes	73 (35.9%)
	Rarely	15 (7.7%)
	Never	12 (5.7%)
	Total	203 (100%)
Social media help you understand medical topics		
	Yes	179 (87.6%)
	No	25 (12.4%)
	Total	203 (100%)
Do you think reducing social media use would improve your concentration?		
	Yes	81 (39.7%)
	Not sure	64 (31.6%)
	No	58 (28.7%)
	Total	203 (100%)

Do you think social media affects your academic performance?	Positively	34 (16.7%)
	No effect	33 (16.3%)
	Negatively	136 (67.0%)
	Total	203 (100%)

Most students reported using social media 188 (92.8%), while 15 (7.2%) did not.

Checking social media during lectures was reported by 88 (43.5%) of students, compared to 115 (56.5%) who did not.

Regarding use while studying, 73 (35.9%) sometimes used social media, 60 (29.7%) often, and 43 (21.1%) always, whereas 15 (7.7%) rarely and 12 (5.7%) never used it.

Most students indicated that social media helps them understand medical topics 179 (87.6%), while 25 (12.4%) reported no benefit.

About the effect of reducing social media use on concentration, 81 (39.7%) believed it would improve concentration, 64 (31.6%) were not sure, and 58 (28.7%) reported no effect.

Regarding academic performance, 136 (67.0%) believed social media affects it negatively, 34 (16.7%) reported a positive effect, and 33 (16.3%) reported no effect.

Table No (4.3): The effect of social media on concentration of medical students at Napata College in 2026 (N=203)

	N (%)	
While studying, how often do you find it difficult to maintain your focus for a long period of time?	Always	10 (4.8%)
	Often	26 (12.9%)
	Sometime	90 (44.5%)
	Rarely	45 (22%)
	Nerve	32 (15.8%)
	Total	203 (100%)
Can you concentrate better when you avoid using social media?	Yes	172(84.7%)
	No	31 (15.3%)
	Total	203 (100%)
Do you study while using social media at the same time?	Yes	113(55.5%)
	No	90 (44.5%)
	Total	203 (100%)
Do social media notifications interrupt your concentration?	Yes	148(72.7%)
	No	55 (27.3%)
	Total	203 (100%)

While studying, most students sometimes found it difficult to maintain focus 90 (44.5%), followed by rarely 45 (22.0%) and never 32 (15.8%). Fewer students reported often 26 (12.9%) or always 10 (4.8%).

The majority of students reported they can concentrate better when avoiding social media 172 (84.7%), compared to 31 (15.3%) who did not.

More than half of the students reported studying while using social media simultaneously 113 (55.5%), whereas 90 (44.5%) did not.

Social media notifications interrupted the concentration of most students 148 (72.7%), while 55 (27.3%) reported no interruption.

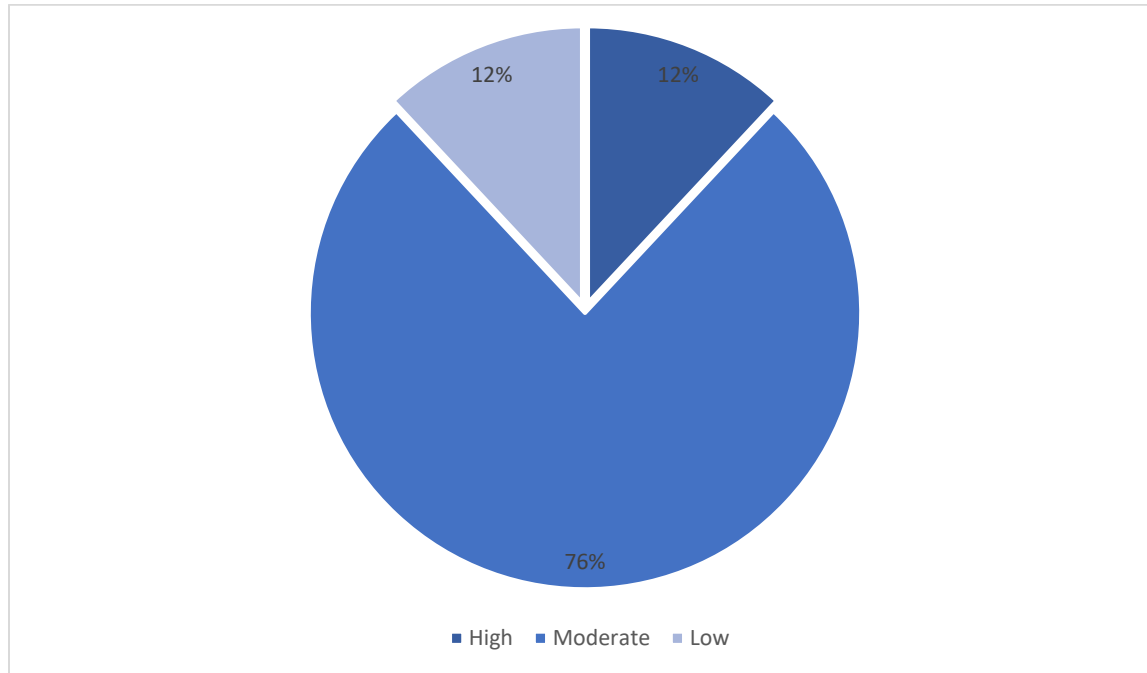


Figure No (4.4): concentration level among medical students at Napata College in 2026 (N=203)

Most students had a moderate level of concentration 154 (76.1%), while equal proportions had low 24 (12.0%) and high 24 (12.0%) concentration levels.

Table No (4.4): Association between concentration level and social media use among medical students at Napata collage in 2026 (203)

	Concentration level			
	Low High	Moderate	Total	
<i>Do you use social media? No</i>	1 (4.0%)	10 (6.3%)	4 (16.0%)	15 (7.2%)
<i>Yes</i>	24 (96.0%)	144 (93.7%)	20 (84.0%)	188 (92.8%)
<i>Total</i>	25 (100%)	154 (100%)	24 (100%)	203 (100%)
<i>P value (χ^2)</i>				0.175 (3.488)

The association between social media use and concentration level was analyzed using the Chi-square (χ^2) test. No statistically significant association was observed ($\chi^2 = 3.488$, $p = 0.175$).

Among students who did not use social media, 1 (4.0%) had low concentration, 10 (6.3%) had moderate concentration, and 4 (16.0%) had high concentration.

Among students who used social media, 24 (96.0%) had low concentration, 144 (93.7%) had moderate concentration, and 20 (84.0%) had high concentration.

Table No (4.5): Association between concentration level and the frequency of use social media among medical students at Napata collage in 2026 (203)

		Concentration level			Total
		Low	Moderate	High	
<i>Do you use social media?</i>	<i><1 hour</i>	0 (0%)	15 (10.1%)	1 (4.0%)	16 (8.1%)
	<i>1-3 hours</i>	7 (28%)	47 (30.8%)	9 (36%)	63 (31.3%)
	<i>4-6 hours</i>	5 (20%)	51 (33.3%)	8 (32%)	64 (31.6%)
	<i>>6 hours</i>	12 (52%)	41 (25.8%)	7 (28%)	60 (29.2%)
	<i>Total</i>	24 (100%)	154 (100%)	25 (100%)	203 (100%)
<i>P value (χ^2)</i>					0.130 (9.878)

The relationship between social media use frequency and concentration level was analyzed using the Chi-square (χ^2) test. No statistically significant association was observed ($\chi^2 = 9.878$, $p = 0.130$).

Among students using social media less than 1 hour, none had low concentration, 15 (10.1%) had moderate, and 1 (4.0%) had high concentration.

For 1–3 hours of use, 7 (28.0%) had low, 47 (30.8%) moderate, and 9 (36.0%) high concentration.

For 4–6 hours, 5 (20.0%) had low, 51 (33.3%) moderate, and 8 (32.0%) high concentration.

For more than 6 hours, 12 (52.0%) had low, 41 (25.8%) moderate, and 7 (28.0%) high concentration.

CHAPTER FIVE

DISCUSSION

5.Discussion:

The present study aimed to assess the prevalence of social media use and its effect on study concentration among medical students at Napata College. The findings revealed that social media use is highly prevalent among students, with the majority reporting daily usage and spending several hours on these platforms.

The study also demonstrated that social media plays a dual role in medical education. On one hand, it provides students with access to educational resources, facilitates communication, and supports collaborative learning. On the other hand, excessive and unregulated use was found to have a negative impact on students' study concentration.

The findings of the present study demonstrate that social media use is highly prevalent among medical students at Napata College, with the majority of participants reporting daily usage and extended time spent on these platforms. This finding is consistent with several previous studies that have highlighted the widespread integration of social media into medical education. For instance, the systematic review by Cheston et al. [21] emphasized that social media has become an essential tool for communication, collaborative learning, and professional development among medical students. Similarly, Alsuraihi et al. [22] reported that medical students in Saudi Arabia frequently use social media for educational purposes and perceive it as a valuable learning resource.

In agreement with these findings, the current study also revealed that students utilize social media not only for entertainment but also as a supplementary educational tool. This supports the findings of AlFaris et al. [23], who reported a high prevalence of social media use among medical students and noted that its impact on academic performance depends largely on usage patterns. Likewise, Nguyen et al. [24] found that more than 90% of health sciences students used social media daily, with a significant proportion of time dedicated to learning activities. These similarities suggest that the pattern of social media use observed in this study reflects a global trend toward increased reliance on digital platforms in medical education.

Despite these educational benefits, the present study identified a significant negative relationship between the duration of social media use and study concentration ($p < 0.05$). This finding aligns with previous research that has documented the adverse effects of excessive social media use on academic performance and cognitive functions. Junco [25] reported that increased Facebook use was associated with reduced study time and lower academic achievement among university students. Similarly, Kirschner and Karpinski [26] found that students who frequently used social media tended to have poorer academic outcomes compared to non-users.

Furthermore, the high prevalence of multitasking behavior observed in this study—where students reported using social media while studying—provides additional explanation for the reduced concentration levels. This finding is consistent with the work of Rosen et al. [28], who demonstrated that frequent interruptions from digital communication significantly impair concentration and increase the time required to complete academic tasks. In the same context, Ophir et al. [30] showed that individuals who engage in media multitasking exhibit reduced cognitive control and difficulty maintaining sustained attention, which directly affects learning efficiency.

The results of the current study also support the findings of Hawi and Samaha [27], who identified a significant association between excessive social media use and decreased academic satisfaction and performance. These findings highlight the potential psychological and behavioral consequences of uncontrolled social media engagement.

In addition, the findings of this study can be interpreted within the context of the increasing reliance on digital technologies in education following the COVID-19 pandemic. Goh and Sandars [29] emphasized that while social media and digital platforms provide opportunities for flexible and self-directed learning, they also introduce new challenges related to distraction and reduced concentration. The present study supports this perspective by demonstrating that although social media may offer educational advantages, its excessive use can negatively affect students' ability to maintain focus during study sessions.

Overall, the findings of this study are largely consistent with the existing body of literature, confirming both the benefits and drawbacks of social media use in medical education. However,

an important contribution of this study lies in its focus on Sudanese medical students, a population that has been underrepresented in previous research. While most prior studies have been conducted in Western or Asian contexts, the present study provides context-specific evidence that highlights similar patterns of social media use and its impact on study concentration within the Sudanese educational environment.

This underscores the importance of developing locally relevant strategies to promote balanced and effective use of social media among medical students. By addressing both the opportunities and challenges associated with social media, educational institutions can better support students in achieving optimal academic performance while adapting to the evolving digital landscape.

CHAPTER SIX

CONCLUSION, RECOMMENDATIONS, REFERENCES & APPENDICES

6.1 Conclusion:

A considerable number of students reported using social media while studying, leading to increased distraction, frequent interruptions, and reduced ability to maintain focus. Statistical analysis showed a significant negative relationship between social media use and study concentration ($p < 0.05$). Although social media can support learning, excessive use may impair focus, making balanced and controlled usage essential for academic success.

6.2 Recommendations

Based on the findings of this study, the following recommendations are proposed:

1. **Promoting Awareness:**

Medical students should be educated about the potential negative effects of excessive social media use on concentration and academic performance.

2. **Encouraging Controlled Usage:**

Students should be encouraged to limit social media use during study sessions and adopt disciplined study habits.

3. **Reducing Digital Distractions:**

It is recommended that students turn off notifications or use applications that block distractions during study time to improve concentration.

4. **Academic Integration of Social Media:**

Educational institutions should integrate social media into the learning process in a structured manner, ensuring that it is used as a supportive educational tool rather than a source of distraction.

5. **Time Management Strategies:**

Students should be guided to develop effective time management skills, including scheduling specific periods for studying and social media use.

6. **Institutional Support:**

Medical colleges should provide workshops or training sessions on digital well-being and effective study techniques.

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Appendices:

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Prevalence and Effect of Social Media Use on Study Concentration among Medical Students at Napata College, Sudan

Prevalence and Effect of Social Media Use on Study Concentration among Medical Students at Napata College, Sudan

مدى انتشار وتأثير استخدام وسائل التواصل الاجتماعي على التركيز الدراسي لدى طلاب الطب بكلية نبتة – السودان

* تأثير إلى أن السؤال مطلوب *

1. * العمر / Age *

حدد دائرة واحدة فقط.

- ☐ Less than 20 / أقل من 20
- ☐ 20-25
- ☐ more than 25 / أكثر من 25

2. * الجنس / Gender *

حدد دائرة واحدة فقط.

- ☐ Male / ذكر
- ☐ Female / أنثى

3. Academic Year / السنة الدراسية *

حدد دائرة واحدة فقط.

- ☐ First / الأولى
- ☐ Second / الثانية
- ☐ Third / الثالثة
- ☐ Fourth / الرابعة
- ☐ Fifth / الخامسة

4. Do you use social media? *

هل تستخدم وسائل التواصل الاجتماعي؟

حدد دائرة واحدة فقط.

- ☐ Yes / نعم
- ☐ No / لا

5. Which platforms do you use regularly? (Multiple answers allowed)*

ما المنصات التي تستخدمها بانتظام؟ (يمكن اختيار أكثر من إجابة)

حدد كل الإجابات الملائمة

WhatsApp

Facebook

YouTube

Instagram

TikTok

Telegram

Twitter/X

☐
☐
☐
☐
☐
☐
☐

6. Average daily usage time*

متوسط عدد ساعات الاستخدام يومياً

حدد دائرة واحدة فقط.

- ☐ Less than 1 hour / أقل من ساعة
- ☐ 1-3 hours
- ☐ 4-6 hours
- ☐ More than 6 hours / أكثر من 6 ساعات

7. Main purpose of use *

الغرض الرئيسي من الاستخدام

حدد دائرة واحدة فقط.

- ☐ Educational / تعليمي
- ☐ Communication / تواصل اجتماعي
- ☐ Entertainment / ترفيه
- ☐ News / أخبار
- ☐ Mixed / متنوع

8. Do you use social media while studying?^{*}

هل تستخدم وسائل التواصل أثناء الدراسة؟

حدد دائرة واحدة فقط.

- ☐ Always / دائماً
- ☐ Often / غالباً
- ☐ Sometimes / أحياناً
- ☐ Rarely / نادراً
- ☐ Never / أبداً

9. Do you check social media during lectures?^{*}

هل تستخدم وسائل التواصل أثناء المحاضرات؟

حدد دائرة واحدة فقط.

- ☐ Yes / نعم
- ☐ No / لا

10. Do social media platforms help you understand medical topics?^{*}

هل تساعدك وسائل التواصل الاجتماعي على فهم المواضيع الطبية؟

حدد دائرة واحدة فقط.

- ☐ Yes/نعم
- ☐ No/لا

11. Do you think reducing social media use would improve your concentration?*
- هل تعتقد أن تقليل استخدام وسائل التواصل يحسن تركيزك؟

حدد دائرة واحدة فقط.

- ☐ نعم/Yes
- ☐ لا/NO
- ☐ غير متأكد / Not sure

12. While studying, how often do you find it difficult to maintain your focus for a long period of time?*
- أثناء المذاكرة، إلى أي مدى تجد صعوبة في الحفاظ على تركيزك لفترة طويلة؟

حدد دائرة واحدة فقط.

- ☐ أبداً/Never
- ☐ نادراً/Rarely
- ☐ أحياناً/Sometimes
- ☐ غالباً/Often
- ☐ دائماً/Always

13. Can you concentrate better when you avoid using social media?*
- هل تستطيع التركيز بشكل أفضل عندما تتجنب وسائل التواصل الاجتماعي؟

حدد دائرة واحدة فقط.

- ☐ نعم/Yes
- ☐ لا/No

14. هل تقوم بالمذاكرة واستخدام وسائل التواصل الاجتماعي في نفس الوقت?
Do you study while using social media at the same time?

حدد دائرة واحدة فقط.

☐ نعم/Yes

☐ لا/No

15. هل مقاطع إعلانات وسائل التواصل الاجتماعي تعيقك?
Do social media notifications interrupt your concentration?

حدد دائرة واحدة فقط.

☐ نعم/Yes

☐ لا/No

16. Do you think social media affects your academic performance?
هل تعتقد أن وسائل التواصل تؤثر على مستواك الأكاديمي؟

حدد دائرة واحدة فقط.

☐ Positively / إيجابياً

☐ Negatively / سلباً

☐ No effect / لا تأثير

Google لم يتم إنشاء هذا المحتوى ولا استخدامه من قبل

نماذج Google