



Effect of Social Media on Mental Health and Academic Performance: Evidence from Tertiary Level Education

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ABSTRACT

The rapid evolution of technology, particularly social media, has made it an integral part of daily life and has significantly impacted every walk of life, including students and education. The current study aims to explore the positive and negative effects of social media usage on students' lives. The study seeks to investigate the influence of social media on female students' academic performance and mental health. The research follows a descriptive nature, employing a survey technique to gather data. The target population includes 11 departments within a government sector female university in south Punjab, Pakistan. A random sampling technique was employed to select the sample, comprising 500 students. Researchers adapted and utilized a questionnaire, employing a Likert-type scale for data collection. The validity of the questionnaire was assessed by field experts, and its reliability was determined through an independent sample t-test. Data collection involved researchers personally visiting the selected departments and administering the questionnaires to the students. Subsequently, the collected data was analyzed using SPSS version 22 software, employing frequencies and percentages for data analysis.



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1. Introduction

Today, there is a significant concern regarding the impact of social media use on teenagers' physical, social-emotional, and cognitive development. Social media has become deeply ingrained in our society to the point where not having a presence on any platform can result in people not taking you seriously. People from all walks of life, regardless of age, wealth, or background, are actively engaged in social media, constantly seeking online social interactions. Even the corporate world has embraced this trend, with companies actively maintaining online profiles, posting updates, and addressing customer inquiries. As defined by Junco, Heiberger, and Loken (2011), social media encompasses various internet platforms, services, and activities that promote collaboration, community building, participation, and sharing. The prevalence of social media use among young people has experienced substantial growth in recent times. It serves as a tool for connecting individuals not only within school environments but also with friends outside of school, fostering a sense of community and belonging. However, researchers and economists have expressed concerns regarding the potential negative effects of excessive time spent on social media platforms on students' academic performance (Choney, 2010). Lenhart, Ling, Campbell,

and Purcell (2010) discovered that approximately 57% of social media users fall within the 18-29 age group and maintain profiles on multiple platforms. Pempek, Yermolayeva, and Calvert (2009) conducted a study that revealed varying amounts of time spent on social networking sites, averaging around thirty minutes per day. However, during the evening hours, specifically between 9 p.m. and 12 a.m., students dedicated an average of forty-seven minutes to Facebook. Sheldon (2008) found that more than half of college students access social networking sites for multiple times a day. Quan-Haase and Young (2010) reported that 82% of college students log into Facebook several times daily, with younger students using it more frequently to stay connected with high school friends or acquaintances from their hometown (Pempek et al., 2009).

The concept of social media is described similarly by Martin, Parry, and Flowers (2015) and Lusk (2010), encompassing platforms like Facebook, blogs, Twitter, MySpace, and LinkedIn that facilitate communication and the sharing of photos and videos. In the context of this study, social media refers to internet-based platforms such as Facebook, WhatsApp, Twitter, Skype, MySpace, and Yahoo Messenger that enable users to communicate and share ideas, photos, and videos. The extensive popularity of social networking websites has evolved into a global trend, progressing from a pastime for tech-savvy individuals to a societal convention and essential aspect of people's lives globally (Boyd, 2008). Particularly among teenagers and young adults, these sites are embraced as a means of connecting with peers, sharing information, shaping identities, and displaying social lives (Boyd, 2008). The academic literature presents varied viewpoints among experts concerning smartphones and social media, with disparities emphasized in a comprehensive analysis conducted by Best, Manktelow, and Taylor (2014). Nonetheless, research specifically concentrating on social media addiction or problematic usage consistently demonstrates a correlation between such behaviors and unfavorable outcomes. Numerous studies propose that an excessive dependence on social networking platforms for communication can have adverse impacts on students, contributing to internalizing symptoms. In recent times, there has been a noticeable surge in rates of depression and anxiety among adolescents and young adults (Weinberger et al., 2018).

According to Canadian educator Belsey (2008), cyberbullying occurs when individuals use communication technologies to repeatedly harm or annoy others, such as by posting hurtful pictures or sending harmful messages via instant messaging or SMS. Bullies utilize various electronic communication tools, including email, instant messenger, Facebook, blog posts, websites, WhatsApp, and cell phone cameras, to torment their victims (Campbell, 2005; Son & Kim, 2008). Modern communication technology and social networking sites provide multiple avenues for bullies to target their victims. The anonymity and digital profiles offered by the internet make it easier for cyberbullies to engage in harmful behavior. They can employ a combination of anonymous calls, SMS, posts, comments, emails, images, and other multimedia content, such as audios and videos (Roberts & Priest, 2006). Social media addiction refers to excessive and problematic dependence on platforms like Facebook, Twitter, and Instagram. It occurs when a user spends an excessive amount of time on social media, negatively impacting other areas of their life, such as school, work, or relationships (Coyne, Padilla-Walker, Holmgren, & Stockdale, 2019). Social media addiction presents itself as excessive utilization and difficulty in refraining. With the rapid expansion of internet-based social media platforms like Facebook, WeChat, or Instagram, the way individuals interact with others has experienced notable transformations (Smith & Anderson, 2018; Stone & Wang, 2019). The widespread use of social media among students has resulted in adverse repercussions and the establishment of a self-perpetuating cycle. Heightened engagement with social media is linked to feelings of inadequacy, discontentment, and seclusion. Individuals often resort to social media as an escape from real-life challenges.

There are situations where individuals share the challenges they are facing on social media, such as illness, the loss of a loved one, or a broken relationship. In response, people may post messages of condolences or words of comfort to provide support. However, the reality is that many of these individuals expressing sympathy do not genuinely feel remorse or empathy. Their actions are driven by a sense of social obligation rather than a true emotional connection, and they often forget about the incident as soon as they move on to the next post. Unfortunately, the person who is suffering does not necessarily feel better

from receiving a multitude of messages on social media alone. In fact, someone who is physically visited by a few close friends and loved ones tends to experience a greater sense of comfort and support compared to someone who receives countless online messages without any actual in-person visits. Statement of the Problem.

Social media has become an integral part of our daily lives, offering numerous advantages that people engage with on a regular basis. However, society often overlooks the potential consequences of using social media without fully understanding what they are exposing themselves to. In order to foster the healthy development of young people in society, it is important for parents, educators, and regular users of social media to understand and acknowledge both the positive and negative consequences associated with its use. Personal experiences with social media often shape people's opinions and influence their decision-making. Hence, it is vital that we base our opinions on well-researched data when discussing such an influential topic as social media use. Although individual social networking sites may not pose significant harm, the cumulative effect of using multiple platforms for extended periods can have negative impacts on youth development. To minimize these risks, parents can implement strategies, as suggested in the recommendations, to have open conversations with their children about social media usage and help them make informed choices. While social media provides engaging and stimulating experiences, it also carries potential downsides that can affect different aspects of adolescent development. Therefore, it is essential to consider both the positive and negative aspects in order to stay informed and understand the possible outcomes related to social media use.

1.1. Objectives of the Study

The study aimed to address the following objectives:

1. To assess the impact of social media on the academic performance among teenagers.
2. To demonstrate the influence of social media on the mental health of teenagers
3. To ascertain what students use social media sites for
4. To investigate the difference in prevalence of effect of social media sites among students of Rural and Urban background

1.2. Significance of the Study

Social media has the potential to influence the physical, cognitive, and social development of teenagers, which can have implications for their psychological well-being, including experiences of stress, anxiety, or depression. It also plays a role in shaping cognitive development by influencing how young individuals think and process information, which is crucial for their ability to handle complexity, make judgments, and plan for the future. Excessive or frequent use of social media in various contexts and for different purposes can impact an individual's ability to filter out irrelevant information and focus on relevant information in the short term. However, social media also offers positive aspects, such as the opportunity for teenagers to create online identities, communicate with others, and establish social networks. These networks can provide valuable support to adolescents, particularly those who may face exclusion or have disabilities or chronic illnesses.

1.3. Delimitations of the Study

This research study was conducted at a public-sector women university in south Punjab, focusing on investigating a specific topic. Due to time constraints, the researcher was unable to explore all the departments within the university. Consequently, data was collected from students attending a public-sector women university in south Punjab, Pakistan.

2. Literature Review

Social media addiction presents itself as excessive utilization and difficulty in refraining. With the rapid expansion of internet-based social media platforms like Facebook, WeChat, or Instagram, the way individuals interact with others has experienced notable

transformations (Smith & Anderson, 2018; Stone & Wang, 2019). Social media, commonly known as social networking sites (SNS), has garnered considerable attention from researchers due to its growing impact. Its prevalence in the lives of young adults and its potential impacts on their mental well-being have raised concerns among parents and educators (Alt, 2017). Social media interactions among adolescents can play a significant role in the development of psychopathology. Online social interactions can be risk factors for mental health issues, as users are exposed to idealized self-presentations. This can affect youngsters' self-esteem, with self-directed use of social media seeking positive feedback and affirmation, while other-oriented use exposes individuals to idealized displays without receiving positive reviews, potentially leading to a decline in self-esteem. Experiencing cyber victimization, such as cyber peer abuse, has been associated with higher rates of self-harm, suicidal behavior, and stress-related issues (Van Hee et al., 2018). Other forms of peer interactions on social media, including social isolation and online conflicts, can also pose risks to young individuals. Studies have indicated that a significant portion of teenagers use their smartphones during sleep or wake up during the night to check their phones, which can disrupt their sleep patterns (Sumner, Bowen, & Bartholow, 2019).

The internet provides various online platforms, including popular social networks e.g Facebook, Twitter, WhatsApp, and Instagram, which have become integral parts of people's lives. Social media encompasses different types of media, such as videos and blogs, allowing individuals to share information about themselves and engage with others. It offers numerous benefits and opportunities for young people, enabling them to maintain social connections and access a wealth of information. However, the current study focuses on investigating the effect of social media use, particularly amidst university students (Yachna et al.). While studies conducted on a population level indicate a link between social media usage and academic distress among teenagers, the impacts can vary among individuals, and experimental research suggests a reduced likelihood of negative outcomes. Gender differences are observed, with girls spending more time on social media, experiencing higher exposure to cyberbullying, and facing more health implications (O'Reilly et al., 2019). Social media platforms enable global communication and connection, allowing individuals from different parts of the world to interact and discuss various topics. It is not only a form of entertainment but also an effective tool that can be utilized to optimize educational outcomes. Social media provides a platform for individuals to engage in political discussions and enhances their internal and external effectiveness, which relates to their political awareness and confidence in political institutions (Knoll, Matthes, & Heiss, 2020).

Students should use social media to promote social awareness and empathy. Social networking sites facilitate connections among young people and allow them to lead authentic lives. Many organizations have also established their presence on social media platforms to share information and recruit suitable candidates for job positions. Building profile pages on platforms like LinkedIn, Facebook, and Twitter, in addition to company websites, has become a common practice for recruitment purposes (Sarwar, Zulfiqar, Aziz, & Ejaz Chandia, 2019). Existing research in this field is predominantly cross-sectional and of low quality. While some studies acknowledge the importance of differentiating between various uses of digital technology, many fail to consider these crucial distinctions. Despite the limitations, there is a slight but generally negative correlation between social media use and psychological well-being. The direction of the relationship between digital technology use and well-being is still debated, as impacts have been found to go both ways, and confounding factors have not been adequately addressed (Orben, 2020). Excessive social media use among teenagers, without age restrictions, has been linked to mental health problems such as depression, anxiety, and suicidal thoughts. A study determining the impact of social sites on face-to-face interaction found that reduced offline interactions may contribute to feelings of anxiety and despair among teens. The study collected data through a questionnaire survey and identified various negative consequences of social media on teenagers' mental health (Yuan, 2022).

Recent research has indicated that social media can have harmful impact on teenagers. Whistleblower testimony presented to the US Congress in 2021 highlighted that social media companies are aware of these consequences but take insufficient measures to make their platforms safer for teenagers. Pediatric nursing experts emphasize the role of

healthcare professionals in assisting parents in promoting healthier social media use among children (Beal, 2022). Social media platforms have become widely used and popular, with billions of users worldwide. Teenagers, in particular, are heavily engaged with social media, with a significant percentage accessing these platforms multiple times a day via their mobile phones. The prevalence of cell phone ownership among young people is noteworthy (Singh, 2022). The impact of social media on child well-being is complex and multifaceted. To better understand this phenomenon, a conceptual article proposes a theoretical framework based on paradox theory. This framework explores the contradictory nature of social media consumption and its effects on child well-being, highlighting the interplay between empowerment and protection. The article suggests further research on managing these paradoxical tensions and promoting children's well-being in the digital age. (Yap & Lim, 2024). Sexual health programs in schools often focus on topics such as abstinence, pregnancy, and STDs. However, these programs may lack comprehensive, evidence-based information that reflects the diversity and complexity of today's culture. Consequently, teenagers turn to media and rapidly evolving technologies to learn about sexual relationships, communication, and identities. However, the reliability of these sources is not always guaranteed, as they may depict unsafe situations and miscommunication (Hayen, 2023). The use of new media among Malaysian teenagers has transformed their social interactions. This study examines the impact of new media on communication, susceptibility to influence, and the spread of fake news. Data was collected and analyzed using the SPSS statistical package. The study aims to gain insights into the effects of new media usage on teenagers (Yusuf, Abdullah, & Ridzuan, 2022).

In summary, social media technologies have transformed interactions, mobile devices are crucial for accessing these platforms, and various popular platforms exist within the social media landscape. Marketers need to understand and manage social media within an ecosystem, considering overall strategy rather than focusing solely on individual tactics. The target audience is primarily teenagers in the United States who are active users of social media sites e.g Instagram, Facebook, Twitter, Snapchat, and YouTube. These teenagers are smartphone users, with approximately 95% of them owning smartphones and 45% remaining online continuously. Additionally, a significant percentage of teenagers have accounts on Instagram and Snapchat, while the majority of them surf YouTube for content. The study examined the disparity in mental health between urban and rural students, as well as the differences between male and female students. It was found that girls generally have better mental health than boys. Furthermore, students in urban areas tend to have better mental health compared to those in rural areas. Specifically, students attending urban schools exhibited significantly better mental health than those attending rural schools. Additionally, within urban areas, female students had better mental health than male students. Conversely, in rural areas, students, particularly boys, had significantly better mental health than their urban counterparts (Tripathy & Sahu, 2021).

3. Data and Methodology

In this section of the study, firstly the research model will be presented. It includes the design of the study, population sample, instrument, reliability and validity of instrument administration of tool, and data collection procedure were described.

3.1. Design of the study

This study examined the viewpoints of university students from a public-sector university in southern Punjab, Pakistan, regarding the impact of social media on their academic performance and mental health, as well as their reasons for using social media platforms. It adopted a non-experimental, exploratory-descriptive research design, which aims to describe individuals' perspectives on a specific situation. This type of research is appropriate for studying university students. Furthermore, descriptive research is intended to provide an accurate representation of a situation as it naturally occurs. Thus, in this study, the descriptive research method was employed to gather the opinions of university students, understand the effects of social media on their academic performance and mental health, and determine the purposes behind their use of social media platforms. The survey approach was utilized to collect data.

3.2. Population and sampling

The focus of this study was to examine the current situation, making the descriptive research method the suitable choice. To collect data, a simple random sampling method was employed. The target population consisted of students enrolled in various programs such as BS, BBA, MS, B.Ed, and Ph.D. across different semesters and departments. The main researcher sought permission from the respective class teachers and approached the students in their classrooms after class time. A total of 500 students voluntarily agreed to participate in the survey.

3.3. Development of Instrument

The researchers utilized a closed-ended questionnaire for data collection, employing a quantitative exploratory-descriptive study design. Following a comprehensive literature review, a survey approach was adopted, and a questionnaire was developed using a five-point rating scale. The research tool was carefully constructed to align with the objectives and nature of the study, and it underwent meticulous proofreading prior to implementation for data collection. The survey questionnaire consists of two sections. Section A captures respondent profile information, while Section B includes statistical testing information related to three variables.

- 1) Academic performance is measured against twelve items
- 2) Purpose of using social media sites with thirteen items.
- 3) Mental health examination with twelve items.

The survey instrument consisted of Likert scale questions that aimed to assess individuals' perceptions, attitudes, and behaviors. Additionally, the instrument included demographic questions and inquiries regarding media usage. A five-point Likert scale was used which was

- | | |
|----------------------|-------------|
| 1. Strongly Disagree | 2. Disagree |
| 3. Undecided | 4. Agree |
| 5. Strongly Agree | |

3.4. Validity and reliability of the instrument

According to (Roberts & Priest, 2006), reliability and validity play crucial roles in establishing the credibility and trustworthiness of research processes and findings. These measures ensure that the information presented is accurate and free from misleading or flawed statements. Reliability, in essence, refers to the consistency with which findings can be replicated or reproduced under similar circumstances. To assess the validity of the research instrument, both face validity and content validity were determined through the input of experts in the field. Additionally, the reliability of the instrument in measuring the effects of social media among teenagers was assessed using Cronbach's alpha, which yielded a value of 0.770.

3.5. Data Collection

The researchers personally gathered data from the students at a public sector university in south Punjab, Pakistan. They visited the students in their respective departments during their study hours and provided information about the purpose of the study. The students were then requested to complete the questionnaire. In cases where students encountered difficulties, the researchers offered guidance and assistance in filling out the questionnaire.

3.6. Data Analysis

After the data was collected, it was subjected to analysis. The collected data was analyzed using SPSS software, specifically Version-22. The researchers employed various statistical measures such as frequency, percentage, mean, and one-way ANOVA to analyze

the data. Once the data was analyzed, the researchers presented the findings in the form of tables and provided interpretations of the results.

4. Results

A significant proportion of students (54.0%) expressed their agreement with the statement that they utilize social networking sites as a means to address their academic challenges. The majority of students (52.4%) acknowledged that they employ social networking sites for conducting research purposes. A significant proportion of students (55.2%) acknowledged using social networking sites for engaging in online academic group discussions. The majority of students (52.0%) agreed that they communicate with their friends through social networking sites as a part of their exam preparation. A considerable number of students (59.2%) agreed that they utilize social networking sites for collaborative learning purposes. A significant majority of students (58.4%) reported using social networking sites to gain knowledge about their academic subjects. A substantial proportion of students (58.6%) agreed that they rely on social networking sites to seek assistance from their teachers. The majority of students (56.8%) expressed facing difficulties in finding precise academic information through social networking sites. A significant proportion of students (64.4%) agreed that they often postpone their academic tasks to spend more time on social networking sites.

The majority of students (62.8%) acknowledged experiencing difficulty in concentrating on their studies when using social networking sites. A considerable majority of students (61.6%) agreed that their use of social media leads to neglecting their academic responsibilities. A significant proportion of students (57.2%) agreed that their academic grades have suffered due to their usage of social media. A significant majority of students (61.8%) acknowledged using social networking sites to enhance their sociability. The majority of students (58.0%) agreed that they utilize social networking sites to shape their social identity. A significant proportion of students (56.8%) expressed a preference for using social networking sites to virtually attend social gatherings. A majority of students (52.2%) agreed that they utilize social networking sites to strengthen their interpersonal relationships. The majority of students (63.2%) agreed that they use social networking sites to stay connected with their relatives. A considerable proportion of students (56.2%) agreed that they use social networking sites for sharing pictures.

The majority of students (60.2%) disagreed with the statement that they use social networking sites to view funny content. A significant majority of students (60.8%) agreed that they use social networking sites for watching movies. The majority of students (62.0%) agreed that they use social networking sites to find relief from academic stress. A significant majority of students (61.8%) agreed that they use social networking sites to read news. The majority of students (60.8%) agreed that they use social networking sites to share new ideas. A significant proportion of students (53.8%) agreed that they use social networking sites to access job-related information. The majority of students (60.2%) agreed that they use social networking sites to stay updated on current social events. A majority of students (60.0%) agreed that compulsive usage of social networking sites is a problematic issue. The majority of students (61.0%) agreed that they often find life boring without social media. A significant proportion of students (57.0%) agreed that they feel irritated when someone interrupts them while using social media. Most students (60.8%) agreed that they constantly seek internet connectivity to access social media. A majority of students (57.0%) agreed that they check social media first thing in the morning upon waking up. The majority of students (57.6%) agreed that they perceive social media as an escape from the real world. A significant proportion of students (51.6%) agreed that their life would feel meaningless without social media. The majority of students (60.0%) agreed that they experience difficulty sleeping shortly after using social media. A majority of students (52.2%) agreed that they would be upset if they had to limit their time spent on social media. The majority of students (57.6%) acknowledged that their family frequently expresses concerns about their excessive use of social media. A significant majority of students (60.6%) agreed that when they are not connected to social media, they often find themselves thinking about what is happening there. The majority of students (60.6%) agreed that their usage of social media has significantly increased since they started using it.

Table 1

Variables	SD	D	UD	A	SA	Mean
I handle academic problems on social media.	0.4	36.6	9	9	45	3.62
Social networking is my research tool.	0.4	38.6	8.6	8.8	43.6	3.57
Social networking is my academic group discussion tool.	0.2	28.4	16.2	15	40.2	3.67
To study, I use social media with pals.	1.6	35.2	11.2	11.4	40.6	3.54
I learn collaboratively on social media.	1	23.8	16	12.2	47	3.8
Social media helps me learn about my curriculum.	1.4	27	13.2	14.2	44.2	3.73
I seek teacher help on social media.	2	26.2	13.2	10.4	48.2	3.77
I have trouble finding academic information on social media.	2.8	15.4	25	22.8	34	3.7
I often put off schoolwork to use social media.	4.2	13.2	18.2	29	35.4	3.78
Social media distracts me from school.	4	18.8	14.4	22.4	40.4	3.76
Social media distracts me from schoolwork.	5.2	17.4	15.8	27.8	33.8	3.68
My grades have dropped owing to social media.	9.6	15.2	18	25.6	31.6	3.54
I become more social on social media.	3.8	17.8	16.6	22.8	39	3.75
My social identity is built on social media.	7	16.8	18.2	25.6	32.4	3.6
I prefer social media than parties.	10.2	13.4	19.6	30.8	26	3.49
Social media helps me build relationships.	7.6	12.8	27.4	22.2	30	3.54
Social media keeps me in connected with family.	5.2	18.8	12.8	16	47.2	3.81
I post photos on social media.	9.4	18.2	16.2	18.6	37.6	3.57
I browse hilarious things on social media.	2.4	17.6	19.8	11.2	49	3.87
I watch movies on social media.	3.8	16	19.4	17.2	43.6	3.81
Social media helps me manage academic stress.	2.4	18.6	17	16.6	45.4	3.84
I read news on social media.	2.2	17.8	18.2	9.4	52.4	3.92
I share new ideas on social media.	1.8	22	15.4	11.2	49.6	3.85
I obtain employment info from social media.	2.4	33.4	10.4	8.6	45.2	3.61
Social networking sites inform me about current events.	1.2	24.8	13.8	8.4	51.8	3.85
My social media addiction is problematic.	1	19.2	19.8	10	50	3.89
I get bored without social media.	3	16	20	14.4	46.6	3.86
Interruptions on social media annoy me.	6	13.2	23.8	24.2	32.8	3.65
I seek internet access everywhere for social media.	3.8	14.2	21.2	20.8	40	3.79
I check social media first thing in the morning.	10	16	17	25.8	31.2	3.52
I use social media to escape reality.	3.6	13	25.8	18.6	39	3.76
Without social media, life is pointless.	10.8	16	21.6	26.2	26.2	3.39
After utilizing social media, I have trouble sleeping.	7.2	14	18.8	24.4	35.6	3.67
Having to limit my social media use upsets me.	9.2	12	26.6	25	27.2	3.49
My family often criticizes my social media addiction.	8	12.6	21.8	25.4	32.2	3.61
I often ruminate on social media events when gone.	7.6	9.6	22.2	23.8	36.8	3.73
Since using social media, my utilization has increased substantially.	4.6	9.6	25.2	16.4	44.2	3.86

SD: Strongly Disagree, D: Disagree, UD: Undecided, A: Agree, SA: Strongly Agree

Table 2: Descriptive Statistics for Subscales of Effects of Social Media among Students of Government Sadiq College Women University Bahawalpur, Pakistan

Variables	Sub-Variables	Number of Items	Mean Score	Standard Deviation	Cronbach Alpha
Effects of Social Media	Academic Performance	12	3.67	0.719	0.797
	Mental Health	13	3.68	0.686	0.831
	Social Media Sites	12	3.73	0.716	0.811
	Overall Effects of Social Media	37	3.69	0.726	

Subscale scores vary from a least of 1 to an extreme of 5.

Table 2 shows that students exhibit an acceptable level of academic performance with a mean value ($M = 3.67$). The students exhibit an acceptable level of mental health with a mean value ($M = 3.68$). The students exhibit an acceptable level for the use of social media sites with a mean value ($M = 3.73$). The Cronbach Alpha value for academic performance, mental health, and use of social media sites was > 0.770 which shows that the instrument was reliable.

Table 3: Descriptive Statistics of Comparison of positive and negative effects of social media on the academic performance of students.

Variables	Sub-variables	Number of Items	Mean Score	Standard Deviation
Academic performance	Positive effect	6	3.65	0.897
	Negative effects	6	3.70	0.793
	Overall Effects on academic performance	12	3.67	0.845

Table 3 shows that the negative effects of social media on the student's academic performance are slightly higher ($M = 3.70$, $SD = 0.793$) than positive effects ($M = 3.65$, $SD = 0.897$).

Table 4: Family Background-wise comparison of Government Sadiq College Women University Bahawalpur for their academic performance.

Family Background	N	Mean	SD	T	Df	P
Rural	217	3.70	0.683	-7.764	498	0.246
Urban	283	3.66	0.747			

N = sample size, t =t-test, df = Degree of Freedom, P = Significance level (2-tailed)

An independent-sample t-test is conducted to compare the family background of students for their academic performance (Table 4). There is not a significant difference between social media sites on the academic performance of Rural family background students ($M = 3.70$, $SD = 0.683$) and Urban family background students ($M=3.66$, $SD = 0.747$); $t(498) = -7.764$, $p = 0.246$.

Table 5: Family Background wise comparison among students of Government Sadiq College Women University Bahawalpur for their mental health problems.

Family Background	N	Mean	SD	t	df	P
Rural	217	3.67	0.647	5.304	498	0.000
Urban	283	3.69	0.809			

N = sample size, t =t-test, df = Degree of Freedom, P = Significance level (2-tailed)

An independent-sample t-test is conducted to compare the family background of students for their mental health problems (Table 5). There is a significant difference in the score of Rural family background students ($M = 3.67$, $SD = 0.647$) and Urban family background students ($M=3.69$, $SD = 0.809$); $t(498) = 5.304$, $p = 0.000$. These results exhibit that Urban family background students face a slightly higher effect of social media on their mental health than Rural family background students.

Table 6: Family Background wise comparison of Government Sadiq College Women University Bahawalpur for their use of social media sites.

Family Background	N	Mean	SD	t	df	p
Rural	217	3.72	0.764	-2.652	498	0.010
Urban	283	3.73	0.649			

N = sample size, t =t-test, df = Degree of Freedom, P = Significance level (2-tailed)

An independent-sample t-test is conducted to compare the family background of students for their use of social media sites (Table 6). There is a significant difference in the score of Rural family background students ($M = 3.72$, $SD = 0.764$) and Urban family background students ($M=3.73$, $SD = 0.649$); $t(498) = -2.652$, $p = 0.010$. These results exhibit that Urban family background students use social media sites slightly more than Rural family background students.

Table 7: Effects of social media sites on academic performance and mental health among students of Government Sadiq College Women University Bahawalpur.

ANOVA		Sum of Squares	df	Mean Square	F	p
Academic Performance	Between Groups	15094.753	39	387.045	8.038	.000
	Within Groups	22149.695	460	48.152		
	Total	37244.448	499			

Mental Health	Between Groups	19478.139	39	499.439	11.368	.000
	Within Groups	20209.661	460	43.934		
	Total	39687.800	499			

Table 7 shows the social media effects on the academic performance and mental health of students. To study these effects one-way ANOVA was applied. The data shows that the F value (8.038) for the academic performance of students was significant ($p < 0.05$) and the degree of freedom was between 39 and 460. The F value (11.368) for the mental health of students was also significant ($p < 0.05$) and the degree of freedom was between 39 and 460.

5. Discussion

The findings of the current study show that students' academic performance affect both positively and negatively by using social media sites but negative effects are slightly higher than positive effects. They use social media sites positively to solve their academic problem, do research work, do online group discussions in preparation for their exams, and seek help from their teachers. Social media effect negatively students as they postpone their academic tasks to spend more time on social networking sites like Facebook, Instagram, WhatsApp, YouTube, etc. The students face difficulty concentrating on their studies so their academic grades often deteriorate. These results were also in line with (Ramachandran, Al-Mughairi, & Al-Azri, 2022). This study revealed that the students face mental health problems at a slightly higher level because they get irritated and feel anxiety when they do not use social media sites in their daily life and also they find difficulties in sleep after using social networking sites. The students do not focus on their studies because they always think about what happened on social media when they are away from them. That's why they face various mental problems. These results were also in line with Mojtabai and Olfson (2020) who shows that social media affect the mental health of students.

The findings of the current study disclosed that students use social networking sites at slightly higher levels in their daily lives. They use social media sites to create their social identity, attend social gatherings, keep in touch with their relatives, look at funny sharing, share new ideas, and get information regarding current social events. They also use social media sites for watching movies, sharing pictures, reading the news, and getting job-related information. The results were also in line with Brandtzæg and Heim (2009) who revealed that students use social media sites for socialization. The discovery of the current study showed that students from urban areas and rural areas show somewhat the same effects on their academic performance by using social media sites. This result was also in line with Borland and Howsen (1999). The results of the current study showed that students from urban areas face more mental health problems by using social media than students from rural areas. The results were contradicted by (Tripathy & Sahu, 2021) who show that students from Rural areas face more mental health problems than Urban areas. The results of this study also revealed that students from urban areas utilize social media sites more than students from rural areas. The overall findings of the study show that social media sites affect both positively and negatively the academic performance of students while it effects negatively on mental health.

6. Conclusion

The present study aims to measure the effects of social media among university students. The study explores that the negative effects of social media on students' academic performance are slightly higher than the positive effects. The study shows that students face more mental health problems by using social media sites. The study demonstrates that students use various social media sites for socialization, entertainment, and information. The study also revealed that the students from rural and urban areas do not show a difference in the effects of social media sites on their academic performance however they show a significant difference in their mental health problems and use of social media sites. The students from Urban areas show higher mental health problems than rural areas because they use social media sites more often than students from rural areas. It concluded that social media affects differently on academic performance and mental health of students.

6.1. Recommendations

In light of the findings of this study, the following recommendations are made:

1. The University should hold a seminar to spread awareness about the effects of social media on students.
2. Students at the university should be taught how to use social media sites to improve their academic performance.
3. Teachers and parents should keep an eye on how students use social media sites.
4. The University should teach their students how, by positively using social media sites, they can protect themselves from mental health problems and improve their academic performance.
5. It is imperative for the University to refrain from defending, protecting, or concealing students who engage in the harassment of others through social media sites. Instead, they should take decisive measures to address such behavior and create a safe environment for all students.
6. Students who possess smartphones with internet access should be motivated to utilize them for enhancing their research at the library, rather than constantly engaging in social conversations with friends.

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