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# Impact Of Social Media Use On The Mental Health Of University Students

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#### **ABSTRACT**

The excessive use of social media platforms has been found to have a negative effect on the mental health of university students. This study aims to find out the significant factors in students' irregular sleeping patterns, social media addiction negatively affects their mental health. In this study, 400 students were chosen to find the impact of too much social media sites use on their sleep patterns, self-satisfaction, anxiety, and depression. The validity of this study was further evaluated using the Depression, Anxiety, and Stress Scale (DASS) and the Pittsburgh Sleep Quality Index (PSQI).

**Keywords:** Social Media, Mental health, Depression, Satisfaction, Social Comparison, Sleeping.

#### **INTRODUCTION**

Concerns about the link between the use of social media and mental health conditions have grown over the past 20 years. Although there is data that suggests that higher young person social m¹edia use is associated with an increase in problems with mental health in the same demographic, it is unknown how social network use may be related to these changes. The term "social media" is commonly used to refer to a collection of websites that facilitate the development and use of online communities through the promotion, consumption, and discussion of material produced by its users. Many young adults around the world now have access to information, entertainment, and activities previously unavailable to them because of the widespread availability of smartphones. The importance of evidence and communication technologies (ICTs) keeps growing, not just in the educational sector, but in all areas of life (Singh, Kaur, & Singh, 2021).

## **Social Media and Mental Health**

Numerous studies link the usage of social media to unfavorable effects such enhanced anxiety, anxious behavior, loneliness, and narcissism. The growing use of social media among young people raises questions about potential drawbacks. If social media use is associated with unfavorable outcomes, research should focus more on determining the root causes of these issues and possible solutions.

Contrarily, Rosen et al. (2013) discovered that participants who spent more time online and frequently censored their social media photos had more severe symptoms of serious depression. A 2012 Croatian study (Pantic et al.) showed a link between high school students' Facebook use and depression. Frequent usage of social media, according to Lou et al. (2012), is a predictor of increased isolation among American university students. Additionally, Kalpidou et al. (2011) found that undergraduates who reported having more Facebook friends had a worse time emotionally adjusting to university life. According to

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the same study, students who used social media more regularly than those who used it less frequently reported having less self-confidence. Furthermore, research conducted by Kraut et al. (1998) and Shaw and Gant (2002) showed a link between depression and web use, indicating that potentially more social Internet activities like gaming and talking reduce the risk of depression.

# **Social Media and Sleeping Patterns**

Over 90% of young people now use social media sites day and night, including Facebook and Twitter, and they have quickly established themselves as essential parts of their life (Duggan & Smith, 2013). A person's quality of sleep is a reliable indicator of their physical health. It not only represents one's daily routine but also their physical health and can give them a sense of total wellness. Additionally, many people utilize alarm clocks to help with their sleep patterns (Mhorain et al., 2005). According to Telzer, Fulgini, Lieberman, and Galvan (2013), understudies frequently have poor sleep quality, which has been linked to discouragement, unease, and a lack of courage. It is crucial to understand how usage of virtual entertainment relates to these characteristics because youth is the time when resistance to poor identity value and the beginning of discouragement and unease are increasingly prevalent (McLaughlin and Ruler, 2015; Orth, Maes, and Schmitt, 2015). The current study contributes new knowledge to the field by examining how general vs. latenight social media use and mental illnesses participation in social media relate to students' sleep quality, anxiety, grief, and self-esteem.

#### **Statement of the Problem:**

In this study, the relationship between students' use of social media and their mental health is examined. To close this knowledge gap, the current study focuses on the relationship between students' sleep quality and social media use. It is expected that higher online social networking use is associated with poorer sleep quality, in line with previous research on Internet usage in general. According to a survey 37% of respondents, using social networking sites was keeping them up at night (Espinoza, 2011). Following a statement of the issue that will be investigated further in this study.

# To what extent did the use of social media affect the mental health of university students?

#### **Significance of Study:**

Using social media has become so important to many people that it takes up their entire day, night, and sometimes even their sleep time. Mounting research recommends that time spent on the social network, especially in excessive amounts, is linked to an elevated risk of depression and other mental health disorders (Rohilla & Kumar, 2015). They assert that consistent use changes the chemical makeup of users' brains and the dynamics of their social connections. Dr. Siegal, a professor of psychiatry, found that people's brains undergo concrete, physical changes as a result of their heavy usage of social media. In his view, online communication was gradually replacing in-person interactions (Justin, 2014).

#### **Research Ouestions:**

RQ1: How usage of social media leads to cause depression in university students?

RQ2: How does spending time on social media sites affect the sleeping patterns of students?

RQ3: Why social media usage is connected to feelings of anxiety?

#### **Hypotheses:**

H1: Excessive use of social media leads to cause depression in university students.

H2: Excessive usage of social media at night affects students' sleeping patterns.

H3: Social media use is significantly correlated with feelings of anxiety.

#### LITERATURE REVIEW

In this section, the empirical literature from various research and discuss its applicability to the topic at hand. It is easier to nothing in on a certain study topic after consulting a wide variety of materials (books, journals, newspapers, and online articles). The mental health of students is examined in light of their participation in social media. Similar examples from the past could be used to demonstrate the study's relevance. There have been several articles, papers, and research that examine the beneficial bad effects of social networks on young societies and students.

Additionally, the use of social media by students and their mental health are related. Senekal and Ruth (2022) discovered that the increased usage of social media platforms for communication by adolescents speaks to a significant role for these sites in the formation of the minds of adolescents and social groups. How social media affects people's psychological well-being is only getting started, and it covers a wide range of issues. The results highlight the complex relationship between students' psychological development and their usage of social media. There are several possible risks linked with social media use, including excessive and problematic use, and unhealthy comparisons. Having loved ones close could help soften the shock. The potential advantage of making it easier to maintain friendships and networks, both of which can be crucial for preserving a positive sense of identity when using social media. The prevalence of social media has increased due to its numerous hazards, making it even more crucial to create and provide preventative and therapeutic mental health care services. Psycho-educational programs for parents and children should cover the drawbacks, advantages, and merits of parental supervision of social media use (Senekal, Ruth Groenewald, Wolfaardt, Jansen, & Williams, 2022).

Furthermore, some studies discuss whether anxiety has been shown to have a strong correlation with excessive usage of social media. In today's culture, the usage of social media by people reached the point where it is almost pandemic. It would seem that those who experience social anxiety or who spend a significant amount of time alone are more likely to prefer and actively seek out social relationships through online platforms such as social media. It's been shown that those who spend a lot of time alone are more likely to engage in potentially harmful activities online. It is necessary to do more research to ascertain the degree to which social anxiety, feelings of isolation, and the usage of social media is associated (O'Day & Heimberg, 2021).

#### **Uses and Gratification Theory**

The purposes and satisfaction speculation, which is the hypothesis utilized in the exploration, is thoughtfully talked about in this segment of the study. While analyzing online entertainment destinations and the satisfactions individuals look for while using them, the UGT is quite possibly the most famous hypothesis. Blumler and Katz (1974) devised the uses and gratifications theory. This idea explains why people engage in media use. To satisfy these needs—namely, diversion (the need to unwind), personal relationships (the need to uphold personal relationships), personal identity (the need to learn about oneself), and surveillance (the need to become aware of what is going on around one), a user will be exposed to specific media, claims Blumler (1979). Based on the hypotheses mentioned, the study uses the following variables: preserving interpersonal connectivity, social identity, depression, life satisfaction, self-confidence, purpose, amusement, and self-improvement value.

Moreover, the uses and gratifications theory (Katz et al., 1973–1974; Wu et al., 2010) contends that individuals actively select and use media to satisfy their own desires. For instance, although some individuals only use social media to play games or share media content, others may do it in order to increase or decrease the size of their social network. Socializing (Apaolaza et al., 2014), articulate exchange of ideas, professional development, interacting with others (Smock et al., 2011), career opportunities, international communication (Roy, 2009), mental assistance, psychological support, socialization

(Anderson, 2011), online shopping and behavior while purchasing are a few of the previously unexplored satisfactions that have been revealed by social media U&G research. However, the majority of this research has focused mostly on how older or Millennial users of Facebook utilize the social media platform. For instance, to find out how seniors utilized Facebook, Jung et al. (2017) conducted interviews with them. The findings showed that there are six main reasons people use Facebook (staying in touch, sharing photos, social monitoring, addressing family members, convenient communication, and curiosity) and six main reasons people don't use Facebook (privacy, need for media diversity, preference for proximity, insignificance of communication, time commitment, and frustration with site tools). It is the first study to employ a U&G framework to analyze how Baby Boomers and Traditionalists use Twitter, Instagram, and other online media. This study accepts that most people use media or correspondence to satisfy their longings. This much of the time results from social impacts and states. To put it another way, they banter in light of what they need at present (Rubin and Rubin, 1992).

# **Research Methodology**

This chapter explains the study design, research methodology, data gathering technique, data collection tool, research procedure, and validity and reliability methods. This study aims to investigate the influences that undergraduates' use of social media has on their mental health. A survey method is being used to carry out the inquiry. A sample of young people who routinely log more than three hours on social media were given a survey. The study assesses respondents' opinions on a range of topics pertaining to social media. The SPSS software was used to gather, analyze, and report the study's data.

#### **Population**

Objects or individuals that meet the researcher's criteria for number and qualities are considered to be in the population, which is a generalization area from which a conclusion can be formed (Ruslan, 2004). A study's population consists of all of the participants who met the study's inclusion criteria. Researchers need to decide on a population to study before they can begin reproducing members of the group. At the moment, research can only be done among such people because of logistical limitations. The sample is a discrete, manageable group that can be isolated from the population. For the findings of the research done on the sample to be considered sufficient to reflect the general population, the sample should be able to accurately represent the group being studied. Participants in this study included both male and female social media users from different institutes. Students from the following universities take part in this study:

- 1. University of Agriculture Faisalabad
- 2. National Textile University Faisalabad
- 3. Riphah International University Faisalabad
- 4. Government College University Faisalabad
- 5. Government College Women University Faisalabad.

#### ANALYSIS AND FINDING

The investigation of the information gathered for the study is provided in this chapter. The findings of the demographic features of the participants are reported in the chapter along with a basic analysis of the respondents. Additionally provided are the means, attitudes, and inferential statistics that aid in answering the study questions as well as a descriptive analysis of the findings. Data is analyzed by using SPSS (statistical package for social sciences).

**Table 4.1 Demographic Characteristics of Respondents** 

Statistics on age group, gender, educational background, and other pertinent questions are included in this area of the chapter, which serves to give control variables for the study. The respondents' ages were the subject of the first query. These are the conclusions presented in Table.1

|               | Description | Frequency | Percentage |
|---------------|-------------|-----------|------------|
| Gender        | Male        | 99        | 24.8       |
|               | Female      | 301       | 75.3       |
| Age           | 18-25       | 382       | 95.5       |
|               | 26-30       | 18        | 4.5        |
|               | Above 30    | 0         | 0          |
| Qualification | Bachelor's  | 343       | 85.8       |
|               | Master's    | 51        | 12.8       |
|               | Ph.D.       | 6         | 1.5        |

In Table 4.1, It is clear from the data that more females than males responded, that the majority of TikTok, Facebook, and Instagram users are between the ages of 18-25, and that most respondents are enrolled in bachelor's programs. The results show that respondents between the ages of 18 and 25 help compensate n=382, or 95.5%, those between the ages of 26 and 30 make up n=18, or 4.5%, and respondents above the ages of 30 compensate n=0 or 0%. Since the majority of university students are young adults between the ages of 18 and 23, it can be said that this research's population is exclusively made up of young adults who are enrolled in universities. Results indicate that there are 301 participants in the study or 75.3% of women. This is because women use social media more frequently than men, and they also keep up with their Social networking sites more frequently. There are 99 men participants in the study or 24.8%. The research shows that there are more female users of social networking sites than male users.

Table 4.02 Rate your life satisfaction while you watch social media posts and statuses.

|                     | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|---------------------|-----------|---------|---------------|---------------------------|
| Very Unsatisfactory | 36        | 9.0     | 9.0           | 9.0                       |
| Unsatisfactory      | 43        | 10.8    | 10.8          | 19.8                      |
| Fairly Satisfactory | 147       | 36.8    | 36.8          | 56.5                      |
| Satisfactory        | 139       | 34.8    | 34.8          | 91.3                      |
| Very Satisfactory   | 35        | 8.8     | 8.8           | 100.0                     |
| Total               | 400       | 100.0   | 100.0         |                           |

Table No. 4.2 demonstrates that n=139 respondents, or 34.8%, said they become satisfied while using social networking sites, whereas n=147 respondents, or 36.8%. When they view social life, which is based on their posted photos or postings, some respondents feel contented with their lives.

Table 4.03 Are you happy with where you live?

|                 | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|-----------------|-----------|---------|---------------|---------------------------|
| Very Unhappy    | 36        | 9.0     | 9.0           | 9.0                       |
| Neither Unhappy | 22        | 5.5     | 5.5           | 14.5                      |
| Fairly Happy    | 87        | 21.8    | 21.8          | 36.3                      |
| Нарру           | 153       | 38.3    | 38.3          | 74.5                      |
| Very Happy      | 102       | 25.5    | 25.5          | 100.0                     |
| Total           | 400       | 100.0   | 100.0         |                           |

Table No. 4.03 demonstrates that n=153 respondents, or 38.3%, said they become satisfied in their lives while using social networking sites. When they view social life, which is based on their posted photos or postings, some respondents feel contented with their lives. The influence of social media on someone's satisfaction with their current location is a complex issue. While social media can open users' eyes to various cultures and experiences, it can also foster feelings of envy and discontentment with their current living circumstances. But 21.8% of respondents are fairly happy in their lives or not. On the one hand, reading about fascinating happenings and seeing images of beautiful places in other people's articles could make you yearn for a different setting. In the end, how one uses social media, their perspective, and their capacity to tell the difference between carefully crafted online experiences and their realities will all determine how much of an impact social media has on how happy they are with where they live.

Table 4.4 How did you feel when you woke up?

|       | Frequency | Pe    | rcentValid Percent | <b>Cumulative Percent</b> |
|-------|-----------|-------|--------------------|---------------------------|
| Tired | 211       | 52.8  | 52.8               | 52.8                      |
| Alert | 189       | 47.3  | 47.3               | 100.0                     |
| Total | 400       | 100.0 | 100.0              |                           |

The table shows that the majority ( n=211, representing 53.8%) of respondents feel tired on waking up in the morning time while (n=189, representing 47.3%) of respondents feel fresh and alert on feeling. The statement implies a study of how people feel when they wake up after using social media the night before they go to bed. Individual differences may exist in how using social media right before night affects them. Due to the stimulating nature of social media information, some people may have restlessness or interrupted sleep, resulting in grogginess or exhaustion when they wake up. Others might feel connected to or engaged with their social media networks, which could have a beneficial effect on their mood when they wake up. It is crucial to remember that excessive or bad social media experiences before bed, such as seeing upsetting content or spending too much time in front of a screen, may have a negative impact on the quality of your sleep and your general well-being. Promoting a happy waking experience requires evaluating individual experiences and keeping social media use and sleep hygiene in check.

Table 4.5 How would you rate your general sleep quality over the last month?

|            | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|------------|-----------|---------|---------------|-----------------------|
| Very Bad   | 57        | 14.3    | 14.3          | 14.3                  |
| Bad        | 84        | 21.0    | 21.0          | 35.3                  |
| Acceptable | 144       | 36.0    | 36.0          | 71.3                  |
| Good       | 78        | 19.5    | 19.5          | 90.8                  |
| Very Good  | 37        | 9.3     | 9.3           | 100.0                 |
| Total      | 400       | 100.0   | 100.0         |                       |

Table 4.5 shows that 36% of respondents had acceptable sleeping quality while 21% of respondents said that they had bad sleeping quality overall. The category good indicates that 19.5% of respondents had good sleeping quality while 14.3% had bad sleeping quality. Individual differences in sleep quality can occur for a variety of reasons, including stress, way of life, and medical issues. The perception of respondents' sleep quality can be anything from poor to good. A high grade denotes regular and restful sleep, whereas a low rating could mean trouble falling asleep, remaining asleep, or waking up feeling rested. Since poor sleep directly affects everyday functioning and general well-being, measuring sleep quality is essential. To improve sleep hygiene and general sleep quality, it might help to understand individual sleep habits and treat any issues.

Table 4.6 How frequently have you struggled to stay awake while driving, eating, or engaging in social activities in the last month?

|                            | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|----------------------------|-----------|---------|---------------|-----------------------|
| Not during the past month  | 107       | 26.8    | 26.8          | 26.8                  |
| Less than a week           | 108       | 27.0    | 27.0          | 53.8                  |
| Once or twice a week       | 109       | 27.3    | 27.3          | 81.0                  |
| Three or more times a week | 40        | 10.0    | 10.0          | 91.0                  |
| Everyday                   | 36        | 9.0     | 9.0           | 100.0                 |
| Total                      | 400       | 100.0   | 100.0         |                       |

The data in the table above reveals that 27% of respondents reported difficulty waking up while driving. once or twice a week, eating meals, or participating in social events. While 26% of respondents claimed they weren't experiencing those feelings in the previous month. This question is crucial since it relates to possible occasions of extreme exhaustion or sleepiness that can endanger one's general functionality and safety. A sleep disturbance, insufficient sleep, or other health issues that require attention and the right actions to guarantee appropriate wakefulness and safety throughout the day could be the cause of difficulties keeping awake while performing these crucial jobs.

Table 4.7 Do you sleep with your cell phone and/or tablet?

| Frequency | Percent                     | Valid Percent                                       | <b>Cumulative Percent</b>   |
|-----------|-----------------------------|---|---|
| 39        | 9.8                         | 9.8   | 9.8   |
| 60        | 15.0                        | 15.0  | 24.8  |
| 75        | 18.8                        | 18.8  | 43.5  |
| 50        | 12.5                        | 12.5  | 56.0  |
| 176       | 44.0                        | 44.0  | 100.0   |
| 400       | 100.0                       | 100.0   |   |
|           | 39<br>60<br>75<br>50<br>176 | 39 9.8<br>60 15.0<br>75 18.8<br>50 12.5<br>176 44.0 | 39 9.8 9.8<br>60 15.0 15.0<br>75 18.8 18.8<br>50 12.5 12.5<br>176 44.0 44.0 |

According to the table, a majority of respondents 44% indicated they always bring their phones to bed with them, while 18.8% claimed they do so sometimes. 9.8% of respondents fall into the "never" category while 15% fall into the "rare" category never bring their cell phone to bed.

Table 4.8 Do you text or use a messaging app before going to sleep?

| ·         | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|-----------|-----------|---------|---------------|---------------------------|
| Never     | 44        | 11.0    | 11.0          | 11.0                      |
| Rare      | 58        | 14.5    | 14.5          | 25.5                      |
| Sometimes | 90        | 22.5    | 22.5          | 48.0                      |
| Often     | 83        | 20.8    | 20.8          | 68.8                      |
| Always    | 125       | 31.3    | 31.3          | 100.0                     |
| Total     | 400       | 100.0   | 100.0         |                           |

The above table evaluates whether people text or use messaging services after going to bed. The use of digital communication tools at night is reflected in this behavior, which may affect sleep patterns and overall sleep quality. 31.3% of all respondents admitted to using messaging apps or texts before going to bed, while another 22.5% admitted to doing so if they woke up in the middle of the night. As bright screens and exciting material can disturb the natural sleep-wake cycle and make it more difficult to fall asleep or sustain peaceful sleep, using electronic devices in bed can interfere with good sleep hygiene. Healthy bedtime practices that restrict screen time before bed can improve the quality of your sleep and your general well-being.

Table 4.9 Do you use your cell phone or tablet to play games after you've gone to bed?

|           | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|-----------|-----------|---------|---------------|---------------------------|
| Never     | 123       | 30.8    | 30.8          | 30.8                      |
| Rare      | 78        | 19.5    | 19.5          | 50.3                      |
| Sometimes | 88        | 22.0    | 22.0          | 72.3                      |
| Often     | 52        | 13.0    | 13.0          | 85.3                      |
| Always    | 59        | 14.8    | 14.8          | 100.0                     |
| Total     | 400       | 100.0   | 100.0         |                           |

The data shows that 30.8% of respondents never play games before night, while 22% of respondents claimed they occasionally do. As a result, 19.5% of respondents rarely play games when they sleep. Their usage of social media apps before bed has become a habit.

Table 4.10 Do you utilize social media after you've gone to bed on your device?

|          | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|----------|-----------|---------|---------------|---------------------------|
| Never    | 38        | 9.5     | 9.5           | 9.5                       |
| Rare     | 49        | 12.3    | 12.3          | 21.8                      |
| Sometime | es 104    | 26.0    | 26.0          | 47.8                      |
| Often    | 90        | 22.5    | 22.5          | 70.3                      |
| Always   | 119       | 29.8    | 29.8          | 100.0                     |
| Total    | 400       | 100.0   | 100.0         |                           |

Using social media on your mobile device after going to bed can negatively impact your sleep quality. The table explains that the majority (n=119, or 29.8% of respondents) always use social media before bed, whereas 26% of respondents do so occasionally due to how it affects their sleep patterns. Your regular sleep-wake cycle may be disrupted by the bright screens and interesting content, making it more difficult to fall asleep. To encourage better sleep and general well-being, it is advised to create a nightly ritual without the use of screens.

Table 4.11 How many times a week do you go to bed intending to sleep only to be awoken by a text or other notification from a friend or social media?

|                      | Frequency | Percent | Valid<br>Percent | Cumulative<br>Percent |
|----------------------|-----------|---------|------------------|-----------------------|
| Never                | 107       | 26.8    | 26.8             | 26.8                  |
| 1 to 2 Nights a Week | 111       | 27.8    | 27.8             | 54.5                  |
| 3 to 4 Nights a Week | 79        | 19.8    | 19.8             | 74.3                  |
| 5 to 6 Nights a Week | 30        | 7.5     | 7.5              | 81.8                  |
| Almost Every Night   | 73        | 18.3    | 18.3             | 100.0                 |
| Total                | 400       | 100.0   | 100.0            |                       |

In the above table majority of respondents, 27.8% said that they awakened about 2 nights a week by receiving text or notification on social media after sleeping. While 19.8% of respondents claimed that social media notifications kept them up three to four nights per week. Having your sleep frequently interrupted can have a big impact on how well you sleep and how rested you feel. It may vary from person to person how many evenings a week they are interrupted. Maintaining ideal sleep hygiene means minimizing interruptions to sleep brought on by digital notifications. Setting boundaries, such as turning on "Do Not Disturb" mode or turning off notifications, can contribute to the improvement of sleep overall quality.

Table 4.12 when you go to bed, do you switch off your tablet and/or cell phone?

|           | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|-----------|-----------|---------|---------------|---------------------------|
| Never     | 154       | 38.5    | 38.5          | 38.5                      |
| Rare      | 65        | 16.3    | 16.3          | 54.8                      |
| Sometimes | 74        | 18.5    | 18.5          | 73.3                      |
| Often     | 37        | 9.3     | 9.3           | 82.5                      |
| Always    | 70        | 17.5    | 17.5          | 100.0                     |
| Total     | 400       | 100.0   | 100.0         |                           |

The table explains that the majority (n=154, or 38.5% of respondents) always use social media before bed they never turn off their cell phones, whereas 18.5% of respondents do so occasionally due to it affecting their sleep patterns.

Table 4.13 What time did you normally go to bed at night over the past month?

|           | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|-----------|-----------|---------|---------------|---------------------------|
| 8 pm-9 pm | 33        | 8.3     | 8.3           | 8.3                       |
| 10pm-11pm | 113       | 28.3    | 28.3          | 36.5                      |
| 12am-1am  | 145       | 36.3    | 36.3          | 72.8                      |
| 2am-3am   | 80        | 20.0    | 20.0          | 92.8                      |
| 4am-5am   | 29        | 7.3     | 7.3           | 100.0                     |
| Total     | 400       | 100.0   | 100.0         |                           |

According to the above data, the majority of respondents (n=145, or 36.3%) went to bed between 12 and 1 am, while 28.3% did so between 10 and 11 pm. Their irregular sleeping patterns are caused by their late-night use of social media. 20% of the respondents who slept later awakened. The majority of respondents, it is concluded, have sleep patterns that are disturbed by social media use.

Table 4.14 How long did it typically take you each night during the past month to fall asleep?

|                      | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|----------------------|-----------|---------|---------------|---------------------------|
| Don't Know           | 86        | 21.5    | 21.5          | 21.5                      |
| Upto 15 Minutes      | 111       | 27.8    | 27.8          | 49.3                      |
| 1 Hour               | 109       | 27.3    | 27.3          | 76.5                      |
| 2 Hours              | 40        | 10.0    | 10.0          | 86.5                      |
| More than 3<br>Hours | 54        | 13.5    | 13.5          | 100.0                     |
| Total                | 400       | 100.0   | 100.0         |                           |

The majority of respondents (n=111, or 27.8%) went to bed between 12 and 1 am, and they fell asleep for up to 15 minutes, while 27.3% did so for up to an hour, according to the aforementioned data. Their erratic sleep patterns are a result of their late-night social media activity. It is concluded that the majority of respondents had sleep habits that are impacted by social media use.

Table 4.15 What time did you usually get out of bed over the past month?

|            | Frequency | Percent | Valid Percent | <b>Cumulative Percent</b> |
|------------|-----------|---------|---------------|---------------------------|
| 4am-5am    | 71        | 17.8    | 17.8          | 17.8                      |
| 6am-7am    | 127       | 31.8    | 31.8          | 49.5                      |
| 8am-9am    | 100       | 25.0    | 25.0          | 74.5                      |
| 10am-11am  | 56        | 14.0    | 14.0          | 88.5                      |
| After 11am | 46        | 11.5    | 11.5          | 100.0                     |
| Total      | 400       | 100.0   | 100.0         |                           |

In the table above, 31.8% of respondents claimed to have woken up between 6 and 7 in the morning, while 25% claimed to have done so between 8 and 9 in the morning. However, 11.5% of respondents snooze till 11 a.m. during the day.

Table 4.16 How many hours of actual sleep did you obtain each night over the past month?

|                    | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|--------------------|-----------|---------|---------------|-----------------------|
| Less than 4 Hours  | 45        | 11.3    | 11.3          | 11.3                  |
| 5-6 Hours          | 141       | 35.3    | 35.3          | 46.5                  |
| 7-8 Hours          | 127       | 31.8    | 31.8          | 78.3                  |
| 9-10 Hours         | 54        | 13.5    | 13.5          | 91.8                  |
| More than 10 Hours | 33        | 8.3     | 8.3           | 100.0                 |
| Total              | 400       | 100.0   | 100.0         |                       |

Data on the number of hours that people slept at night during the previous month are shown in Table 4.32. The 11.3% of the total responses, or 45 people, said they slept for fewer than 4 hours. The majority of respondents (141, or 35.3% of the total) said they slept for 5 to 6 hours at night. The second most common sleep length, indicated by 127 respondents (31.8% of the total), was 7-8 hours. 54 respondents, or 13.5% of the total, said they slept for 9 to 10 hours per night. More than 10 hours of sleep were reported by 33 respondents (8.3% of the total).

# **4.2 Correlation Analysis:**

The statistical test used to assess the statistical relationship between two continuously varying parameters is known as the Pearson's correlation coefficient (Statistics Solutions, 2022). The Pearson Correlation method determines the degree of correlation between the linked variables. The Pearson Correlation measures the strength of the association between three variables, similar to other statistical factors. The findings confirmed the association between all of the variables by demonstrating a substantial position of

correlation between each pair of variables. One connection had a moderate to explosive level of tension. Table 4.33 displays the correlation between the various factors.

Sleeping pattern and social media use has one of the strongest correlation of all(r = 0.329, p = .000). Also, a substantial and positive association is indicated between social media use and Depression anxiety level (r = 0.283, p = .000). The p-value of all variables is strongly significant. Depression and anxiety are also significantly related to sleeping patterns among social media addicts(r = 0.297, p = .000). The table demonstrates how social media has an impact on student's mental health, but it also significantly disrupts their sleep patterns. The results demonstrate in Table 4.33.

#### **DISCUSSION**

Social media enables interaction and the development of new relationships. These relationships, in comparison, are frequently more formal and fleeting. Users of social media frequently lack meaningful connections with the acquaintances they make online. In comparison to relationships formed through direct interaction with friends and family, those formed through these means cannot be compared. Overusing social media, in the opinion of 59% of students, has a negative effect on relationships with friends and family. OwusuAcheaw and Larson (2015) contend that relying only on social media to establish and sustain relationships might result in hopelessness, loneliness, and depression. Smartphones make it harder for friends and family to interact in person, which may undermine the value of the time spent developing these relationships and psychologically isolate people from one another.

# H1: Excessive use of social media leads to cause depression in university students.

High levels of anxiety and depression have been linked in previous research (Banjanin et al., 2015; Farahani et al., 2011; Pantic et al., 2012) to social networking site use in general. As with many of the recent studies, the nature of this link is still being determined. Social media use among teenagers who experience anxiety may increase (Hamburger & Ben-Artzi, 2000). Depressed teenagers may use social media more to control their negative mood, much as how children and adults use watching TV to control their emotions (Chen & Kennedy, 2005; Van Der Goot, Beentjes, & Van Selm, 2012). In this study, a substantial and positive association is indicated between social media use and Depression anxiety level (r = 0.283, p = .000). As a result, this hypothesis is generally accepted. The p-value of all variables is strongly significant. Based on these observations next hypothesis is developed to study the relationship between social media use and sleeping patterns.

## H2: Excessive usage of social media at night affects student's sleeping patterns.

According to Jackson, Sztendur, Diamond, Byles, and Bruck (2014), teens' late-night social media use causes later bedtimes and less restful sleep, which in turn impacts their capacity to handle melancholy and anxiety. The compelling connections between midnight social media use, subpar sleep, anxiety, and depression support this claim. Although the precise link between online social networking use and depression or anxiety is still unclear, the available data clearly suggests that this interaction involves sleep quality. Similar to adults, anxious students may use online platforms more at night when they can't sleep because concern is known to interfere with sleep (Doane et al., 2015). It is necessary to do more research to ascertain the direction of this association and the part disturbed sleep plays in linking online social networking use with anxiety and depression.

# H3: Social media use is significantly correlated with feelings of anxiety.

Instead of using personal communication networks for the purpose of learning, students spend a lot of time online during the day and night shopping, gaming, and resting. These behaviors prohibit students from participating in academic events, limit their opportunities to study, and distract them from learning, which results in certain understudies' academic performances declining (Yu et al., 2010). According to the most recent studies on sleep quality, students' emotional connections to specific websites and their use of social media

during specific times are more significant than their usage's frequency or duration. This may imply that a strong emotional tie to social networking sites affects sleep quality by raising worry, which is known to decrease sleep, according to Doane, Gress-Smith, and Breitenstein (2015). According to findings from a prior study (Thomee et al., 2010), young adults said they feel a lot of stress to constantly be available and reply to communications immediately away. Because they worry they won't see any new posts, students who are deeply involved in social media platforms may find it difficult relax before night. The association between emotional investment and poorer sleep quality was statistically significant if depression, anxiety, and poor mental health were added as predictors. The last and fifth hypotheses are therefore accepted.

#### **Conclusion:**

Poor sleep quality is a problem for all students, regardless of their age, gender, or subject of study. The causes of poor sleep quality have not been definitively identified. Smoking, physical activity, or stimulant-containing beverages did not appear to affect how well people slept. Poor sleepers, on the other hand, missed more morning courses and experienced higher levels of anxiety throughout the day. Academic advisors and the students themselves might utilize the findings to help them improve their daily activities and sleep patterns. Additional investigation could be done to determine how lifestyle and behavioral factors, in particular, affect sleep quality. The quality of sleep is unaffected by SM consumption alone. Instead, the amount of time spent using smartphones during the day or night, as well as their mode and purpose, have an impact on how well you sleep. Complications from excessive SM use, including mental health conditions and inactivity, may also have an impact on sleep quality.

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