



Social Media Use and Mental Well-Being: Examining Behavioral Patterns and Psychological Outcomes

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ABSTRACT

The emergence of social media in our lives has changed our styles of interaction in many ways and hence there is a need to talk about the implications of social media usage on the mental health of the individuals using them. The aim of this research is to examine the impact that the behavioral trends in social media usage have on the mental health of individuals, through examining the behavioral and psychological trends. This is a quantitative study whereby secondary data will be used. Secondary data will be obtained from an open source database involving many respondents. The behavioral trends to be examined include the frequency of social media usage, aimless surfing, distraction and restlessness. The statistical methods required for both descriptive and inferential analysis were utilized for examining the secondary data. It has been observed from the study that the usage of social media involves habitual and disorganized usage characterized by constant distractions. Moreover, it was found that the social media usage has different impacts on the psychology of individuals. A strong relationship can be established between the behavior and the psychological wellbeing of individuals based on the outcomes of the research, suggesting that the amount and type of usage of social media have their implications on the psychological wellbeing of individuals.

Keywords:

Social Media; Mental Health; Behavioral Patterns; Psychological Outcomes; Anxiety; Depression

1. INTRODUCTION

The emergence of many technological advancements in the modern world has resulted in drastic changes in terms of interaction, communication, and processing information between individuals. In addition, the rise of social media has also brought some shifts in current social behaviors. Many types of applications for social media like Facebook, Instagram, TikTok, and YouTube are frequently used by young people today. Although there is no denying that such applications provide opportunities for communicating and expressing oneself, there may be possible adverse consequences of using social media regarding mental well-being of users. The issue of connection between the two concepts has become very popular in the recent literature. Godard and Holtzman (2024) conducted a thorough analysis of previous research that demonstrated the complexity and multilateral nature of impact of social media on users depending on its usage pattern. The authors indicated that people may use social media for active interaction with other users and self-expression. At the same time, people may use social media in a passive way observing the actions and postings of other individuals. It is also very relevant to study this connection because of an increasing amount of mental health disorders that occur with adolescent and young adult patients. As it was pointed out by Agyapong-Opoku et al. (2025), the application of social media usage is connected with different psychological consequences like anxiety, depression, and emotional problems. According to Osman (2025), social media users whose age belongs to the one of college students have greater amounts of psychological disorders. From all the above-stated, it is clear that

excessive social media utilization may result in harmful outcomes on the psychological well-being of a user. Nonetheless, social media should not be considered as one that is always accompanied by some sort of disorder as positive aspects of social media application exist too. In this sense, Bonsaksen and Kleppang (2025) argued that social media is a place where people can share their feelings, socialize, and become aware of mental health problems. The same opinion is presented in the work of Wu et al. (2024) who believed that social media can play a great role in emotional well-being of its users. The behavioral patterns accompanying social media use also need to be considered. Studies show that behavioral aspects like compulsive use, always checking, and addictive tendencies may have substantial impacts on individuals' psychological well-being. As observed by Ndindeng (2025), too much interaction with social media networks may lead to cognitive overstimulation, shortened attention spans, and emotional instability among others. Additionally, studies like those by Borghouts et al. (2023) have revealed that people's interactions with digital devices depend on various psychological and behavioral factors. This makes it essential to analyze users' behavior rather than just the fact that social media use happens. There are also the effects of the growing role of digital data and analytics on mental health issues that need consideration. As observed by Kamarudin et al. (2020), social media data provides information that can help identify trends concerning psychological disorders as well as behavioral factors. Moreover, it has become increasingly common to conduct large-scale digital health campaigns involving social media platforms. For

instance, Yan et al. (2025) have shown that social media can be effective tools for public health campaigns. Nevertheless, it is necessary to conduct further studies that will help understand the relationship between behavioral patterns and psychological results of using social media. Many studies in the area have concentrated either on the issue of usage intensity or a particular variable related to psychology. Therefore, the current study contributes to the field through assessing the influence of such behaviors as purposeless surfing, distractibility, and restlessness on such psychological states as anxiety, depression, and sleeping problems. In other words, the main role of the present work is to look at the phenomenon of social media from the point of view of their interaction. Thus, through the examination of behavioral patterns and psychological aspects, the researcher uses quantitative data for understanding the problem comprehensively. At present, the importance of conducting this study cannot be overstated due to the fact that social media remain extremely important in the modern digital era.

Objectives

To observe the patterns of social media usage among individuals, including frequency, duration, and behavioral tendencies such as purposeless use and distraction. To evaluate the psychological outcomes related with social media use, particularly in terms of anxiety, depression, sleep disturbances, and cognitive functioning. To analyze the connection between social media usage patterns and mental well-being, in order to determine how behavioral engagement influences psychological outcomes.

2. METHODOLOGY

2.1 Research Design

This study adopts a quantitative research methodology to observe the relationship between the use behavior of social media and psychological well-being. The reason for choosing this approach is based on the need for analyzing numerical data using statistics tools to examine the behavior pattern and its psychological effects that result from the use of social media.

2.2 Data Source and Description

2.2.1 Source of Data

For the current research, the data was retrieved from an openly available data set that includes survey results gathered in order to investigate the link between social media utilization and psychological well-being (Souvik, 2023).

2.2.2 Dataset Characteristics

The dataset under consideration includes about 481 observations and 21 variables. Variables include not only sociodemographic data but also social media engagement and psychological parameters. Some of the essential variables are anxiety, depression, distractibility, problems with sleep, and behavior related to social media utilization.

2.3 Variables of the Study

2.3.1 Independent Variables (Behavioral Patterns)

These independent variables depict the behavior associated to the usage of social media, which include time consumed on social media, the frequency of unnecessary use of social media, the level of distraction created by social media,

restlessness without the use of social media, and the type of platforms used.

2.3.2 Dependent Variables (Psychological Outcomes)

The dependent variables indicate psychological effects, which include the level of depression experienced, anxiety and worry, sleep disorders, difficulty in concentration, and self-comparison/validations.

2.4 Data Processing and Preparation

2.4.1 Data Cleaning

The dataset was analyzed to detect whether there are any missing, irregular or inconsistent, and incorrect values. Such values were later dropped from the database in order to guarantee validity.

2.4.2 Data Transformation

Variables that are categorical like gender and usage of particular social media platforms were converted into numeric values. Responses given on a Likert scale were transformed to have consistency by scaling them to 1-5.

2.4.3 Variable Grouping

Grouping of variables was done according to their relation to construct like anxiety, depression, and self-esteem among others.

2.5 Statistical Techniques

2.5.1 Descriptive Statistics

For the description of the data, descriptive statistical tools such as frequency distribution, percentages, mean, and standard deviation were employed.

2.5.2 Inferential Statistics

Inferential statistics have been used to analyze the data and find any relationship among the variables. For this purpose, correlation study was carried out to explore the relationship among different variables regarding social media usage and mental well-being. Regression analysis was also completed to identify the effect of social media usage patterns on psychological well-being.

2.6 Ethical Considerations

This study relies on second-hand data collected from an open-source database, which means that there is no need for direct contact with the participants. The database used in the current research project is anonymous and contains no personal information; therefore, the ethical issues have been addressed appropriately

3. RESULTS

3.1 Profile of the Respondents

Analysis was done using data collected from respondents belonging to various demographics. Young people made up most of the sample group, indicating an active population that uses digital platforms. The number of participants by gender and occupation can be used to show the makeup of the research sample. As can be seen from Table 1 below, demographic features of the respondents were provided by age, gender, and occupation.

Table 1. Demographic Profile of Respondents

Variable	Category	n	%
Age (years)	Mean $\pm$ SD	26.14 $\pm$ 9.92	-
	Median	22	-
	Range	13-91	-
Gender	Male	211	43.9
	Female	263	54.7
	Other	7	1.5
Occupation	University Student	292	60.7
	Salaried Worker	132	27.4
	School Student	49	10.2
	Retired	8	1.7

From the table above, it is clear that the sample is predominantly made up of younger people and more females than males. In terms of their occupation, the majority belong to the student category, followed by those who are employed. The distribution of the sample population based on gender and occupation can be seen in Figures 1(a) and 1(b).

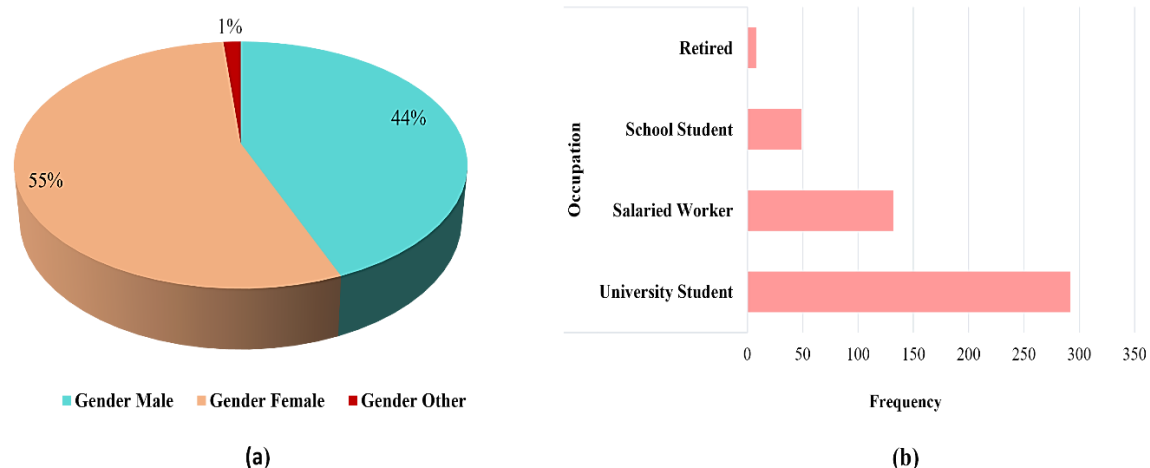


Figure 1: Demographic Distribution of Respondents: (a) Gender Distribution; (b) Occupational Distribution

From Figure 1(a), it can be seen that there is a greater number of female respondents than male respondents, with a small number of respondents being in other categories. According to Figure 1(b), students constitute the highest number of occupational categories, followed by workers, with few respondents being in other occupational categories. This reveals that the sample consists mainly of young and academically active people.

3.2 Social Media Use Patterns

It is clear that the social media usage trend by the sample is fairly prominent since a considerable number of respondents are regular users of social media, particularly during leisure time, and some spend several hours at a stretch on social websites. It is evident that the sample respondents are frequent users of multiple social media sites.

Table 2. Daily Time Spent on Social Media

Time spent per day	n	%
Less than an Hour	34	7.1
Between 1 and 2 hours	70	14.6
Between 2 and 3 hours	101	21.0
Between 3 and 4 hours	93	19.3
Between 4 and 5 hours	67	13.9
More than 5 hours	116	24.1

According to the table above, many respondents are highly involved with social networking sites because the percentage showing how many respondents spend many hours per day using such social media is relatively high. Most popular social media are shown in Figure 2 below.

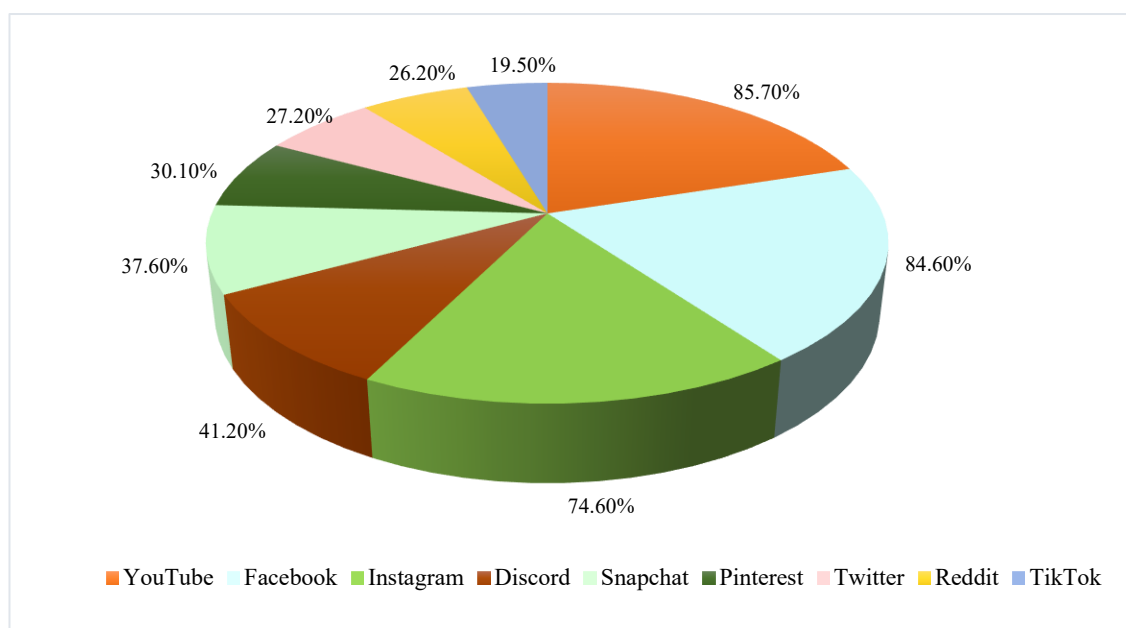


Figure 2. Most Commonly Used Social Media Platforms

From the figure, it can be observed that while some platforms are utilized by many, others are less utilized. There are also specific platforms that are predominantly used, thus implying that most users use these particular social networking sites.

3.3 Behavioral Patterns Related to Social Media Use

From the behavioral patterns seen in the data set, social media engagement appears to be mostly habit-forming and sometimes disorganized. Participants admitted to social media engagement with no particular aim and distraction while on social media platforms. Moreover, some participants claimed that they felt restless when they could not access social media. Table 3 shows the descriptive statistics of behavioral factors.

Table 3. Descriptive Statistics for Behavioral Pattern Variables

Variable	Mean	SD	High-score proportion (4-5)
Purposeless use	3.55	1.10	55.5%
Social media distraction	3.32	1.33	48.9%
Restlessness without social media	2.59	1.26	24.1%
Composite behavioral score*	3.15	0.98	-

*Composite behavioral score = average of purposeless use, social media distraction, and restlessness.

The above table demonstrates that there are instances when respondents indulge themselves in futile uses and also face some amount of distractions. Respondents can also be seen feeling restless without social media, suggesting different kinds of behavioral addictions.

3.4 Psychological Results Linked with Social Media Use

The findings show that respondents feel differently regarding their emotions and cognitions due to social media usage. Some of the feelings include worry, lack of focus, mood swings, and problems related to sleeping. There were cases of social comparison and social validation among the respondents. The psychological measures have been shown in Table 4.

Table 4. Descriptive Statistics for Psychological Outcome Variables

Variable	Mean	SD	High-score proportion (4–5)
Easily distracted	3.35	1.18	-
Bothered by worries	3.56	1.28	57.2%
Difficulty concentrating	3.25	1.35	46.6%
Social comparison	2.83	1.41	33.7%
Feelings about comparison	2.78	1.06	-
Validation-seeking	2.46	1.25	22.9%
Feeling depressed or down	3.26	1.31	45.9%
Fluctuation in interest in daily activities	3.17	1.26	-
Sleep issues	3.20	1.46	48.9%
Composite psychological score**	3.09	0.80	-

**Composite psychological score = average of easily distracted, worries, concentration difficulty, comparison, feelings about comparison, validation-seeking, depressive feelings, fluctuation in daily interest, and sleep issues.

The table shows that the participants are moderately or highly stressed, especially in relation to anxiety, difficulty concentrating, and emotional swings, as can be seen from Figure 3.

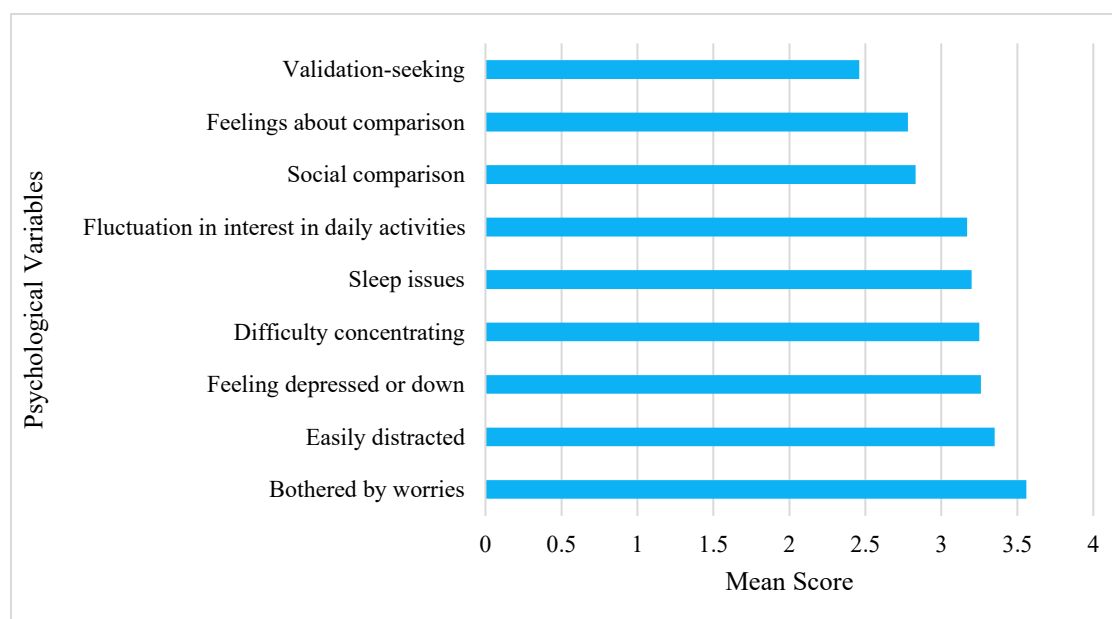


Figure 3. Mean Scores of Psychological Outcomes Associated with Social Media Use

Some psychological outcomes, including worry and distraction, can be easily seen on the graph for a significant number of respondents. Except those, other psychological issues, including depression, lack of concentration ability, and sleeping troubles, were noticed as well at an observable level, while social comparisons and self-verification stayed quite low.

3.5 Association Between Behavioral Patterns and Psychological Outcomes

The correlation was carried out between the behaviors and psychological outcomes in order to show their relationship. It should be noted that, according to Table 5, the two have some significant connection.

Table 5. Correlation Between Behavioral Patterns and Psychological Outcomes

Behavioral variable	Psychological outcome	r	p
Time spent per day	Composite psychological score	0.386	< .001
Purposeless use	Composite psychological score	0.398	< .001
Social media distraction	Composite psychological score	0.562	< .001
Restlessness without social media	Composite psychological score	0.519	< .001
Composite behavioral score	Composite psychological score	0.626	< .001

The table shows that higher levels of social media engagement and behavioral involvement are associated with increased psychological distress.

3.6 Differences in Psychological Outcomes by Time Spent on Social Media

Differences in psychological outcomes were observed across varying levels of time spent on social media. Individuals with higher usage levels tended to report greater psychological strain compared to those with lower usage levels. These differences are presented in Table 6.

Table 6. Composite Psychological Outcome Score by Daily Time Spent on Social Media

Time spent per day	Mean psychological score	SD	n
Less than an Hour	2.19	0.81	34
Between 1 and 2 hours	2.74	0.72	70
Between 2 and 3 hours	3.02	0.76	101
Between 3 and 4 hours	3.25	0.72	93
Between 4 and 5 hours	3.26	0.69	67
More than 5 hours	3.42	0.72	116

The table indicates a progressive increase in psychological distress with higher levels of social media usage.

3.7 Predictors of Psychological Outcomes

Regression analysis was conducted to identify key predictors of psychological outcomes. The findings indicate that behavioral variables

related to social media use significantly contribute to variations in mental well-being. The regression results are presented in Table 7.

Table 7. Multiple Regression Predicting Psychological Outcomes

Predictor	B	SE	t	p
Time spent per day	0.056	0.020	2.752	.006
Purposeless use	0.076	0.030	2.503	.013
Social media distraction	0.202	0.027	7.590	< .001
Restlessness without social media	0.169	0.027	6.210	< .001

Model summary: $R^2 = 0.410$, Adjusted $R^2 = 0.405$,
 $F = 82.72$, $p < .001$

The table shows that behavioral factors such as distraction and restlessness play a significant role in influencing psychological outcomes.

4. DISCUSSION

This study has looked at the association between social media and the mental well-being of individuals through the behavior patterns and psychological consequences. According to the results obtained, the use of social media is common among the participants and it is accompanied by some behavioral patterns and psychological consequences. Purposeful use, distraction, and restlessness are some of the behavior patterns observed while anxiety, depressive moods, and disrupted sleeping pattern represent some of the psychological consequences caused by the use of social media. The study's findings make it abundantly evident that social media use and poor mental health are related, as numerous other studies have shown. For example, Keles et al. (2020) have concluded that there exists a link between increased use of social media and higher incidences of depression, anxiety, and psychological problems among adolescents. On the same note, Lin et al. (2016) concluded that there exists a strong correlation between the frequent use of social media and depression among young adults. These findings have been supported by the fact that respondents who used social media more frequently also reported having more psychological issues. Accordingly, higher use of social media was related to perceived social isolation in the research conducted by Primack et al. (2017). Such indirect connection between social media and cognitive abilities could be explained by the fact that distractions and purposeless activities related to social media use are common behaviors

in the current study. The aspect of social comparison that emerged from the results of this research is also well-explained by existing theories. As Appel et al. (2016) stated, social comparison performed in Facebook is often associated with negative emotional responses, including depression and envy. The same idea was supported by Wirtz et al. (2021), who revealed that social comparison behaviors played an important role in multi-platform use influencing the subjective well-being of individuals. Overall, these findings confirm the hypothesis about evaluative behaviors typical for social media that can negatively affect people's mental state. The issue of sleep disturbances and emotional fluctuations is not surprising considering previous studies on the topic. As Woods and Scott (2016) indicated, using social media during nighttime hours had an impact on poor sleep quality, anxiety, and depression in adolescents. Moreover, Twenge & Campbell (2018) revealed that excessive screen usage has a negative impact on psychological well-being of children and teens. Several recent studies support behavioral factors found in the current analysis. According to Miranda et al. (2023), social media addiction occurs due to factors like motivation, flow, and feeling like being a part of a community, which may make a person become addicted to using it compulsively. The mentioned above behavioral aspects that have been found in this analysis, namely purposeless use and restlessness, correspond to patterns of dependence. Besides, according to Kim and Shen (2020), people of different age categories are affected by social media activities regarding their life satisfaction

differently. Since the study's findings demonstrate the connection between behavior and psychology in relation to social media use, it can be said that they are consistent with current research on the topic. Overall, the study's findings strengthen the body of knowledge about the existence of behavioral and psychological factors connected to social media use. Specifically, apart from how much time people spend interacting with social media, what kind of activities one performs becomes significant for mental health as well. While this study makes numerous contributions to the body of literature, there are some significant drawbacks that come with it. First of all, the use of secondary data makes it impossible to control for the choice and measurement of variables. Second, no causal link between social network use and mental health could be established because the study's data was cross-sectional. Third, response biases can affect self-reports. Furthermore, it should be noted that the bulk of the study's respondents were younger. In order to investigate the relationship between social network use and psychological well-being, future research must address the shortcomings of this study and concentrate more on longitudinal designs. Experimental research will help to investigate the cause-and-effect relationship between certain usage patterns and psychological state of a person. It is also worth studying different moderators that could play a critical role in the process, including personality, digital literacy, and social support. In summary, the results from this study further emphasize the emerging apprehension regarding the negative effects of overusing and misusing social media on psychological health. Through its demonstration of the relationship between behavior and mental well-being, this study sheds light on the importance of practicing responsible social media usage.

5. CONCLUSION

The current study explores the relationship between the use of social media and the level of well-being through the identification of behavioral patterns and mental well-being indicators. It is clear from the results that social media use is common among the respondents. In addition, it is observed that the frequency of use is high and social media users tend to engage themselves with their activities in social media very habitually. There are various behavioral patterns observed in the use of social media that include purposeless use, distractibility, and restlessness, among others. With respect to psychological well-being, it is observed that there is an extensive relationship between use of social media and psychological well-being. The participants experience various kinds of negative emotions like worries, difficulty in concentration, disruption in sleep, and changes in mood. The results clearly indicate the presence of relationships among the various behavioral patterns observed among the participants and the psychological outcomes. This clearly highlights the significance of the intensity and pattern of the use of social media in the well-being of the participants.

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