

The Effect of Social Media Usage on Anxiety Levels among University Students

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ABSTRACT

The present study investigated the relationship between Social Media Usage and Anxiety Levels. A sample of 74 University Students residing in Surat city, 43 females and 31 males was collected using convenience sampling technique. Sample included participants from the age group of 18-23 years. The Pittsburgh Social Media Usage Scale and the Beck Anxiety Inventory were used to measure Social Media Usage and Anxiety Levels, respectively. Data was analysed using SPSS (Statistical Package for the Social Sciences) Correlation and Regression analyses was performed to determine the statistical significance of the relationship between Social Media Usage and Anxiety Levels. Results indicated that there is a statistically significant relationship between Social Media Usage and Anxiety Levels and Higher intensity of Social Media Usage is significantly associated with increased Anxiety Levels among university students.

Keywords: *Social Media Usage, Anxiety, University Students*

Social Media is an application that facilitates communication and interaction between users. People utilise this virtual area to develop or maintain connections with others, interact, share, and communicate for a variety of reasons. Social Media is a virtual space that helps users create social networks or relationships with other users that have similar hobbies, interests in life or work, backgrounds, or connections in real life. Therefore, Social Media is the interaction between people in networks where they generate and exchange ideas and information but in order to link individuals, social media depends on a variety of electronic devices, including desktops and laptops, iPad mobile devices and Internet-based modern technology. As a result, technologies that promote social connection, enable teamwork, and permit global discourse among people (Boateng and Amankwaa, 2016).

Simply stated, Social Media Usage refers to the proportion of time that people spend using Social Media. Social Media refers to any website that facilitates human-to-human communication in virtual mode. It has increased dramatically, particularly during the period of Lockdown when everything moved to digital, from work to schooling. The reason for use might vary, ranging from industrial to leisure-related (Patwari P. & Seth Grover S.,2022).

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Parashar, Y. & Waraich, S.B (2023), Social Media platforms exist in a variety of forms. These include blogging platforms like WordPress and Medium, instant messaging applications like WeChat, Telegram, and WhatsApp, Social networking sites like Facebook, LinkedIn, and Twitter, and media sharing websites like YouTube, Instagram, and TikTok. The impact of Social Media on mental health, privacy, and the spreading of false information have also drawn criticism. The Psychological effects of Social Media continue to be studied, however there may be links to feelings of unworthiness, anxiety, and low self-esteem. Furthermore, a number of issues linked to excessive Internet and social media use have impacted Young adults sleep cycle and lifestyle.

Psychological phenomenon, Anxiety is referred to as An emotion that is marked by fear and physical signs of tension that arises when someone expects danger, disaster, or undesirable fate to strike. The body frequently reacts to imagined threats by tightening its muscles, accelerated breathing, and fast heartbeat. While fear and anxiety are sometimes used interchangeably, there are conceptual and physiological differences between the two. While fear is a suitable, present-oriented, transient reaction to a clearly defined and particular threat, anxiety is thought of as a future-oriented, long-acting reaction centred on a diffused threat (American Psychological Association, 2018).

Faisal F.,Hina J.,& Sara. I. (2022), Higher education students are a unique set of individuals who have experienced the transitional phase, critical growth, nurturing personality, and advancement towards adulthood. Social media is a common tool used by university students in this modern age. Students experience frustration, stress related to relationships, careers, competition, grades, and social interaction throughout this developmental phase. Social media apps are being used by adults for a variety of reasons. Numerous research has since been conducted on the relationship between social media and anxiety, academic performance, unstable mental states, problematic internet usage, internet addiction, and mental problems related to social media and the internet.

Studies conducted on Social Media Usage and Anxiety Level indicated a positive relationship between the variables. Woods and Scott (2016) reported a positive correlation between social media use and anxiety, depression, low self-esteem, and poor sleep quality. The research included teenagers aged 11 to 17 years old. Teens who are emotionally invested in Social Media are more likely to experience anxiety and sadness because they feel alone and upset when they aren't using it.

A study by Parashar, Y. & Waraich, S.B. (2023), on Relationship Between Social Media Usage and Social Anxiety Among College Students found a significant positive correlation between social media use and social anxiety, suggesting that as social media use increases, so does social anxiety among college-going students. These findings are a link between social media use and mental health issues such as anxiety, depression, and loneliness. A sample of 140 college students aged between 18-25 years was taken.

The purpose of conducting the present study is to deepen the understanding of how Social Media Usage Influences Anxiety Levels among university students, a demographic increasingly affected by digital interactions. Although existing studies have explored this relationship, this research aims to provide specific insights into a university context in Surat. Present study is crucial for developing targeted interventions and strategies to mitigate the negative effects of social media on mental health.

METHODOLOGY

Sample:

A sample of 74 university students residing in Surat city between the age group of 18-23 years were included as part of the study. Convenience sampling technique was used to collect the data. The statistical tool used to analyse the data was Correlation and Regression.

Inclusion Criteria:

- University students aged 18-23 years were selected. Enrolled in the university at the time of the study.
- Only male and female. Individuals residing in Surat city.

Exclusion Criteria:

- University students below 18 years of age and above 23 years were excluded. Individuals not currently enrolled in the university.
- Another gender, apart from male and female. Individuals residing outside Surat city.

Hypotheses:

- **H1.1:** There will be a statistically significant relationship between Social Media Usage and Anxiety Levels among university students.
- **H1.2:** Higher intensity of Social Media Usage is significantly associated with increased Anxiety Levels among university students.

Procedure:

For data collection, a Google form was created and shared with University students. The form consisted of 5 parts: The first section was regarding the details of the researcher, research and confidentiality. The second section was demographic details including age, gender, city. The third section was regarding Social Media Usage and the fourth section was regarding Anxiety, the fifth section was debriefing. It was made sure that the participants' information was kept confidential. The aim of the study and information about the Psychological scales used were provided under the column of debriefing at the end of the questionnaire. It was made sure that all the ethics like debriefing, withdrawal from the study etc. were followed. After the data was collected, Correlation and Regression was used to analyse the data.

Ethics:

The study ensured voluntary participation by obtaining informed consent from participants. Confidentiality of the participants was maintained and all the participants were given details about the questionnaire filled and the purpose of the study.

Tools used:

- **Social Media Usage:** The Pittsburgh Social Media Usage Scale was developed by Dr. Katelyn M. H. Powell and Dr. Brian A. Primack. Cronbach's alpha values above 0.80, indicating high reliability.
- **Anxiety:** The Beck Anxiety Inventory was developed by Dr. Aaron T. Beck, Dr. Robert A. Steer, and Dr. Gregory K. Brown. Cronbach's alpha coefficients generally range from 0.90 to 0.94.

This indicates that the items within the scale consistently measure the construct of anxiety.

RESULTS AND DISCUSSION

Descriptive Statistics:

In order to understand the data better, descriptive statistics was administered. For this purpose, the mean and standard deviation were calculated, since they lay the foundation of the further data analysis.

Table 1.1 Showing Descriptive statistics for Social Media Usage and Anxiety Levels

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--------------------|----|---------|---------|---------|----------------|
| Social Media Usage | 74 | .00 | 34.00 | 13.6486 | 7.49508 |
| Anxiety Levels | 74 | .00 | 56.00 | 14.8514 | 13.06431 |

The minimum value of social media Usage is 0, indicating that some participants did not use Social Media. The maximum value is 34, suggesting that the highest Level of Social Media Usage reported is 34 units. The average Social Media Usage among participants is approximately 13.65 units, with a standard deviation of 7.50. This means that there is considerable variability in Social Media Usage among the participants, with most values deviating around 7.50 units from the mean. The minimum Anxiety Level is 0, indicating that some participants reported no Anxiety. The maximum value of 56 represents the highest Level of Anxiety reported by any participant. The average Anxiety Level is approximately 14.85, with a standard deviation of 13.06. This indicates substantial variability in Anxiety Levels, with most values deviating around 13.06 units from the mean. The mean of 13.65 units suggests a moderate Level of Usage, but the large standard deviation indicates that some participants use Social Media much more or less than the average. The Anxiety Levels among participants are highly variable, with a broad range from 0 to 56. The mean Anxiety Level is relatively moderate (14.85), but the large standard deviation reflects a wide dispersion of anxiety Levels. Given the moderate positive correlation ($r= 0.429$) between social media Usage and Anxiety Levels, these descriptive statistics support the notion that variability in Social Media Usage and Anxiety is present in the sample.

Inferential Statistics:

The present study has used Pearson Product Moment Correlation and Regression to verify the hypotheses.

H1.1: There will be a statistically significant relationship between Social Media Usage and Anxiety Levels among university students.

Table 1.2 Showing Pearson Product Moment Correlation table for Social Media Usage and Anxiety Levels

| | | Social Media Usage | Anxiety Levels |
|--------------------|---------------------|--------------------|----------------|
| Social Media Usage | Pearson Correlation | 1 | .429** |
| | Sig. (2-tailed) | | .000 |
| | N | 74 | 74 |
| Anxiety Levels | Pearson Correlation | .429** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 74 | 74 |

** Correlation is significant at the 0.01 Level (2-tailed).

The correlation analysis reveals a moderate positive relationship between Social Media Usage and Anxiety Levels among the participants. Pearson Correlation Coefficient: The Pearson correlation coefficient between Social Media Usage and Anxiety Levels is $r=0.429$.

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This value indicates a moderate positive correlation. In other words, as Social Media Usage increases, Anxiety Levels tend to increase as well. Statistical Significance: The significance Level (p-value) for this correlation is $p=0.000$ which is less than the 0.01 threshold. This result is statistically significant. The strong statistical significance underscores the reliability of this relationship in the given sample.

A study conducted on 340 participants concluded that Social Media use has been found to be too glorified. However, a lot of people think using social media on a regular basis can be difficult and unpleasant. This study demonstrated how inadvertent social media possession and a preoccupation with being online might lead to the development of uncontrollable psychological components. The results showed that among adults, social media addiction manifested as a general anxiety problem. It suggested more significant psychological alterations as possibly dangerous adverse effects for participants. Furthermore, a higher predictor of general anxiety disorder is addiction to social media (Faisal F., Hina J., & Sara. I., 2022).

Thus, in the light of the data analyzed and the literature review it can be concluded that, there is a statistically significant relationship between Social Media Usage and Anxiety Levels among university students.

H1.2: Higher intensity of Social Media Usage is significantly associated with increased Anxiety Levels among university students.

Table 1.3 Showing Regression Table of Social Media Usage and Anxiety Levels

| Variables Entered/Removed | | | |
|---------------------------|--------------------|-------------------|--------|
| Model | Variables Entered | Variables Removed | Method |
| 1 | Social Media Usage | . | Enter |

Table 1.4 Showing Model Summary

| Model Summary | | | | |
|---------------|------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .429 | .184 | .173 | 11.88042 |

Table 1.5 Showing Results of ANOVA of Social Media Usage and Anxiety Levels

| Anova ^a | | | | | | |
|--------------------|------------|----------------|----|-------------|--------|-------|
| | Model | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 2296.977 | 1 | 2296.977 | 16.274 | .000b |
| | Residual | 10162.388 | 73 | 141.144 | | |
| | Total | 12459.365 | 74 | | | |

a Dependent Variable: Anxiety Levels

b Predictors: (Constant), Social Media Usage

Table 1.6 Showing Regression between Social Media Usage and Anxiety Levels

| Coefficients | | | | | |
|--------------------|-----------------------------|------------|---------------------------|-------|------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | | | |
| 1(Constant) | 4.637 | 2.884 | | 1.608 | .112 |
| Social Media Usage | .748 | .186 | .429 | 4.034 | .000 |

Dependent Variable: Anxiety Levels

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R (Correlation Coefficient): $R=0.429$. This value indicates a moderate positive correlation between Social Media Usage and Anxiety Levels. R Square (Coefficient of Determination): $R^2=0.184$. This value means that approximately 18.4% of the variability in Anxiety Levels can be explained by Social Media Usage. Std. Error of the Estimate: 11.88042, this represents the average distance that the observed values fall from the regression line. The F-value is statistically significant, indicating that the regression model as a whole is a good fit for the data and that Higher Social Media Usage significantly predicts Anxiety Levels. Social Media Usage: Unstandardized Coefficient (B): $B=0.748$, For each one-unit increase in Social Media Usage, Anxiety Levels are expected to increase by 0.748 units. t-value: 4.034, Significance (p-value): $p=0.000$. The coefficient for Social Media Usage is statistically significant, suggesting a reliable and positive relationship between Social Media Usage and Anxiety Levels. The regression analysis indicates that Social Media Usage is a significant predictor of Anxiety Levels, accounting for 18.4% of the variance in anxiety. The positive coefficient suggests that increased Social Media Usage is associated with Higher Anxiety Levels. The F-test confirms the overall significance of the model.

A study conducted by Valkenburg & Peter (2009), found a positive relationship between Social Media Usage and individuals with Higher Anxiety. Higher intensity of Social Media Usage has adverse effects on Mental Health of an individual including disturbed Sleep cycle. Social Media may include social anxiety inducing features relating to the content that users like or post when they are worried how others may judge them as a result (Becker, 2013; Chou & Edge, 2012).

Results from present study indicated that increase in intensity of Social Media Usage is significantly associated with increased Anxiety Levels among university students. Thus, the hypothesis, Higher intensity of Social Media Usage is significantly associated with increased Anxiety Levels was accepted.

Limitations:

- **Sample size and generalizability-** The sample size of 74 may limit the generalizability of the findings to other populations.
- **Homogenous Sample-** The sample was drawn from a single university in Surat, which may not fully represent the diversity of university students in other regions.
- **Self-Report Measures-** Self Report Measures are subject to biases such as social desirability or inaccurate self-assessment. Both the scales used in the present study: The Pittsburgh Social Media Usage and Beck Anxiety Inventory are Self Report Measures.

CONCLUSION

The study confirms a significant relationship between Social Media Usage and Anxiety Levels among University students in Surat. Higher intensity of Social Media engagement is associated with increased anxiety. These findings highlight the need for further research and the development of targeted interventions to address the mental health impacts of Social Media.

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Conflict of Interest

The author(s) declared no conflict of interest.

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