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The Impact on the Relationship between Social Media and Anxiety among College Students in Coimbatore

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ABSTRACT: Social media is now a core aspect of life for college students, and they are affected mentally in many different ways. In this study, the influence of social media on anxiety levels in college students of Coimbatore is studied. The investigation focuses on the role played by excessive use of social media, cyberbullying, social comparison, and online dependency in generating increased anxiety. Based on surveys and qualitative analysis, the research indicates important factors that affect students' mental health and proposes potential interventions. The results are intended to offer insights into how to keep a balanced social media life and reduce anxiety-related problems.

I. INTRODUCTION

The connection between social media use and anxiety has been an increasing research topic, with studies indicating that overuse of social media contributes to inadequacy, loneliness, and social comparison. In Coimbatore, a vibrant education city in Tamil Nadu, college students comprise a large number of social media users. With more students spending hours on these websites, it is critical to comprehend the connection between social media and anxiety in order to deal with the mental health issues of this generation. The connection between anxiety and social media use has been an expanding body of research, with studies indicating that overuse of social websites can lead to inadequacy, loneliness, and social comparison.

In Coimbatore, a fast-paced educational hub in Tamil Nadu, college students constitute a major chunk of social media users. As more and more students spend hours on these sites, it is essential to know about the connection between social media and anxiety. Academic pressure, peer pressure, financial pressures, and career insecurity are some of the factors that significantly contribute to their anxiety levels. Social media, although providing many advantages, has also been shown to heighten these stressors.

For example, the pressure of keeping up with a flawless online presence, incessant exposure to filtered lifestyles, fear of missing out (FOMO), and online bullying are all associated with increased levels of stress and anxiety.

College students in Coimbatore, a city famed for having successful educational institutions, form a lively but vulnerable population. Most of them are social media users, frequently spending several hours a day scrolling, posting, and commenting on content. Examining usage patterns, anxiety provoking incidents, and the contribution of online activity, the study aims to identify how social media impacts mental health among this particular group. The conclusions are expected to offer insights into how healthy digital behavior can be encouraged and how interventions may be developed to counteract the negative impact of social media on the mental health of students.

OBJECTIVES:
- To examine the prevalence of anxiety among college students in Coimbatore district.
- To investigate the relationship between social media usage and anxiety levels among college students.
- To identify the specific social media platform and features that contribute to anxiety among college students.

SCOPE OF THE STUDY

This research examines the correlation between anxiety levels and the use of social media among Coimbatore college students. It seeks to determine how aspects of social media use, such as frequency, consumption of content, interactions on the internet, and comparisons on social media, affect symptoms of anxiety.

•Time spent on Instagram, Facebook, WhatsApp, and Twitter among students in colleges.
•Understanding whether students employ social media for study purposes, entertainment, social connections, or other things.
•Investigation of whether there is a causal link where more use of social media contributes to higher anxiety, stress, or other psychological issues.
•Analysis of how students' attitudes towards material on the internet influence their self-perception and anxiety levels.

LIMITATIONS

This analysis is confined to students in colleges in Coimbatore, which may limit the scope of generalization of the results to other parts or age groups. The analysis is based on self-reported information, which might be biased due to factors like social desirability or poor recall. Further, the study highlights the correlation between social media use and anxiety but does not identify a cause-and-effect relationship as the study is observational in nature. Pre-existing mental health conditions, personality traits, and other external stressors that could lead to anxiety are not thoroughly explored. Additionally, the research takes into account only trending social media websites and may fail to include future trends or specialized sites that would produce various psychological effects. Finally, the fact that social media is dynamic ensures that its impacts change over time, and the results may no longer be fully relevant in the future.

II. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It deals with the objective of a research study, the method of defining the research problem, the type of data collected, method used for data collecting and analysing the data etc. The methodology includes collection of primary data and secondary data.

DATA COLLECTION
Both primary and secondary data are used in this study. Primary data was collected through survey method using questionnaire to conduct the study successfully. A questionnaire was designed for this purpose.

PRIMARY DATA
Primary data is used to collect responses from the teachers through a Google Forms questionnaire.

SECONDARY DATA
Secondary data consists of pre-existing information that was collected for other purposes. In this study, secondary data was obtained from various sources including industry publications, magazines, journals, books, and reputable websites.

RESEARCH DESIGN
Research design in the blue print of the proposed of study it represents the overall scheme of the study. All research design is the logical and systematic planning and it helps directing piece of research.

SAMPLING
It is not always necessary to collect data from whole universe. A small representative sample may serve the purpose. A small means a small group should be cross section and really "representative" in character. This selection process is called sampling.

SAMPLE DESIGN
The sampling design used in the study was convenience sampling.

SAMPLE SIZE

Government Colleges	30
Private Arts & Science Colleges	35
Engineering & Technology Institutions	20
Autonomous Colleges	15
Deemed universities	10
TOTAL	**110**

AREA OF STUDY

This research "study on the relationship between social media and anxiety among college students in Coimbatore "

1.7.11 TOOLS AND DATA ANALYSIS

For the purpose of analysis various statistical tools such as
- Simple percentage
- Chi square test
- Anova Analysis

1. SIMPLE PERCENTAGE:

Percentage refers to a special kind of ratio. Percentages are used in making comparison between two or more series data. Percentages are used to describe relationship, since the percentage reduces everything to a common base and thereby allows meaningful comparisons to be made.

No. of. responses = number of respondents/total number of respondents *100

2. CHI SQUARE TEST:

The **Chi-Square test (χ² test)** is a statistical method used to determine if there is a significant association between two categorical variables. It helps researchers analyze whether observed data differs from expected data due to chance or if there is a meaningful relationship.

Formula:

$X2 = \sum$ (observed value – Expected value) 2 / expected value

3. ANOVA ANALYSIS:

(Analysis of Variance) analysis is a statistical technique used to examine the significant differences between three or more groups or variables. Specifically, ANOVA analysis is employed to identify whether the observed differences between the groups are due to chance or if they are statistically significant.

III. REVIEW OF LITERATURE

Christina et al. (2024)

Christina et al. (2024) conducted a study that examined social media addiction, social anxiety, and loneliness among college students aged 18-22. Using previously tested scales like the Social Media Addiction Scale (SMAS) and the Social Anxiety Questionnaire for Adults (SAQ-A30), social media addiction was found to have a weak yet statistically significant positive correlation with both social anxiety and loneliness. This indicates that higher social media addiction is correlated with high social anxiety and loneliness among college students.

Maria Vinita et al (2024)

In 2024, Maria Vinita et al. carried out a study on the trends of social media use and its effect on mental health among university students in Coimbatore. The study employed the Social Media Induced Depression Tendency (SMIDT) scale to measure the effect of social media on mental health in terms of dimensions like sensitivity, worthlessness, and avoidance of reality. The results indicated a major influence on mental health, with a high percentage of students reporting moderate to extreme sensitivity, feelings of worthlessness, and reality avoidance tendencies. Moreover, problems like Fear of Missing Out (FOMO) and social pressure also arose as major hindrances in curbing social media use, emphasizing the necessity of interventions encouraging healthier coping mechanisms and responsible usage to improve overall well-being.

Dr. Abinayaa M. (2023)

Dr. Abinayaa M.'s 2023 work, "Social Media Addiction and Its Impact on Mental Health Among Adolescents," offers a thorough examination of the impact of excessive use of social media on the mental health of adolescents in Coimbatore. The study, involving a sample of 100 adolescents, was carried out to determine the prevalence of social media addiction as well as its psychological effects. The research discovered that a high percentage of participants displayed symptoms of social media addiction, including excessive screen use, compulsive checking habits, and dependence on online interactions. Addiction was very strongly correlated with higher levels of anxiety, with most teenagers indicating restlessness, nervousness, and an intensified fear of missing out (FoMO). Apart from anxiety, the research also pointed out other adverse psychological effects such as low self-esteem, social withdrawal, and depressive symptoms.

Yukti Parashar and Dr. Sushmita Biswal Waraich(2022)

Published in the International Journal of Indian Psychology, examines the complex interplay between social media use and social anxiety among university students between the ages of 18 and 25 years.

This research is significant because the widespread use of social media sites has resulted in concerns over its effects on adolescents' mental health, especially in school.The main objective of the research was to assess the relationship between the use of social media and social anxiety. Social anxiety is defined as fear of social interactions and fear of being judged or evaluated negatively by other people. With the growing hours spent on social media sites such as Instagram, Facebook, and Twitter, the researchers attempted to see if online interaction leads to or worsens anxiety in actual social situations.

Boobalakrishnan, Jayaseelan, and Pichandy (2020)

Explored social media use among university students in Coimbatore. The survey of 507 students was used to measure weekday and weekend time spent on social media. It was found that gender affects time spent on social media on weekdays, but not age and education qualification.

Anxiety Induced through Social Media Use

Social media is now an integral part of students' lives, shaping the way they communicate, interact, and see themselves. Excessive or unhealthy use of social media may play a role in promoting heightened anxiety in college students.

IV. SELECTIVE COLLEGES IN COIMBATORE DISTRICT

The top 5 Selected Colleges in Coimbatore District are
1.Hindustan college of Arts and Science
2.Dr. G.R. Damodaran College of Science
3.Sri Ramakrishna College of Arts and Science
4.Tamil Nadu Agricultural University

Hindustan College of Arts & Science

Hindustan College of Arts & Science (HICAS), founded in 1998 by the Hindustan Educational and Charitable Trust, is a well-known autonomous college in Coimbatore, Tamil Nadu. It is affiliated with Bharathiar University. HICAS has a wide array of undergraduate, postgraduate, M.Phil., Ph.D., and diploma courses in various disciplines such as Arts, Science, Commerce, Management, and Computer Applications.

Dr. G.R. Damodaran College of Science
Dr. G.R. Damodaran College of Science (GRDCS), established in 1988, is an autonomous institution located in Coimbatore, Tamil Nadu. Affiliated with Bharathiar University, the college has earned a reputation for academic excellence and comprehensive education.

Sri Ramakrishna College of Arts and Science
Sri Ramakrishna College of Arts and Science (SRCAS), previously SNR Sons College, is a well-known autonomous college in Coimbatore, Tamil Nadu. Founded in 1987 by the SNR Sons Charitable Trust, the college has expanded tremendously over the years, now housing more than 6,500 students and providing more than 30 programs in various fields, such as Arts, Humanities, Science, Commerce, and Management.

Tamil Nadu Agricultural University in Coimbatore
The Tamil Nadu Agricultural University (TNAU), located in Coimbatore, is the epitome of agricultural learning and research in India. Founded in 1906, TNAU has matured into a top-class institution, providing a complete array of undergraduate, postgraduate, and doctoral courses, all designed to improve agricultural practices and achieve food security.

V. TOOLS AND DATA ANALYSIS

SIMPLE PERCENTAGE METHOD:

TABLE 4.1.1

Age Group	Frequency	Percent
15-18	13	12.3
18-25	37	34.9
25-30	46	43.4
30-35	10	9.4
Total	**106**	**100.0**

Source : Primary Data

INTERPRETATION:
Table 4.1.1 the majority (43.4%) of people are aged 45-54, followed by 35-44 (34.9%).
Younger adults (25-34) make up 12.3%, while the smallest group is 55+ (9.4%). Most individuals (78.3%) are between 35-54. This suggests a middle-aged dominance in the sample, with fewer younger and older participants.

Chart No.4.1.2

Age group
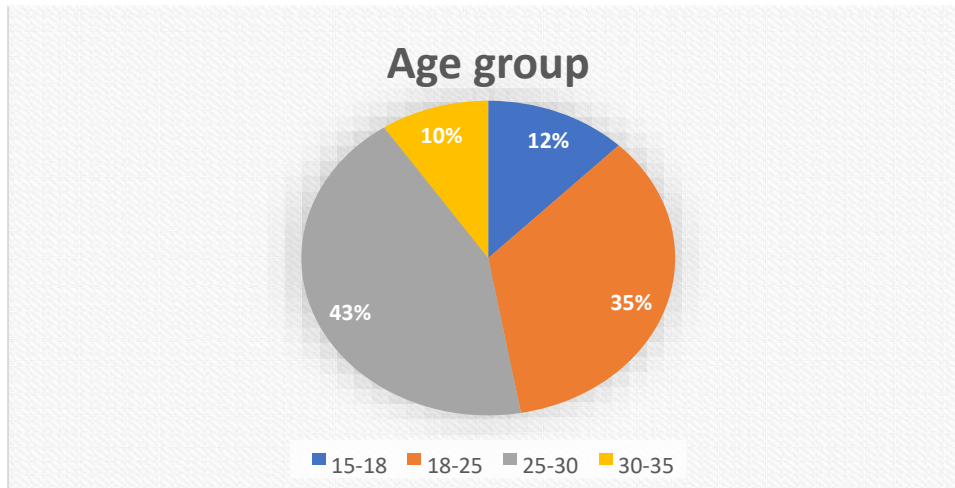
Table No.4.1.1

Gender	Frequency	Percent
Female	61	57.5
Male	45	42.5
Total	**106**	**100.0**

Source : Primary Data

INTREPRETATION:

The sample consists of **57.5% females (61 individuals)** and **42.5% males (45 individuals)**. This shows a **higher female representation** in the group. The difference suggests that women are more involved or interested in the subject of the study, depending on the context. The total sample size is **106 individuals**.

Chart No.4.1.2
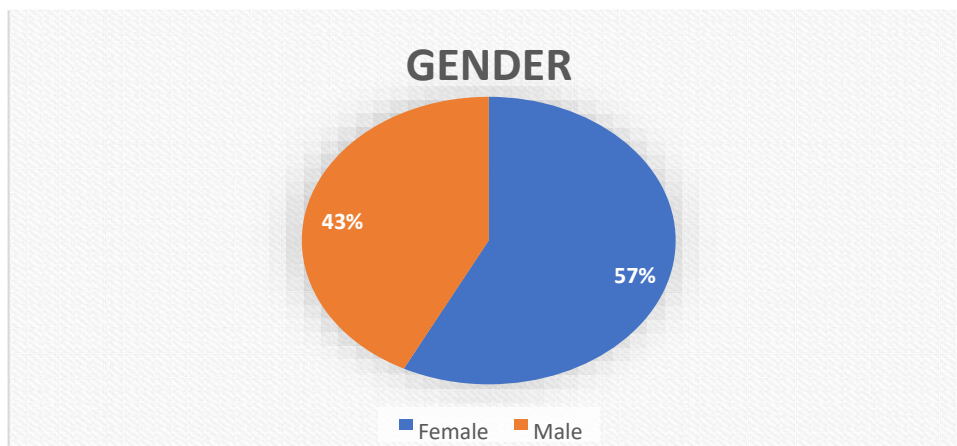
GENDER

4.2 CHI-SQUARE ANALYSIS

Hypothesis No.1
Null Hypothesis (H$_0$): There is no significant relationship between age group and Age group and Getting enough quality sleep

Alternative Hypothesis (H$_a$): There is a significant relationship between age group and Age group and Getting enough quality sleep

TABLE NO 4.1.3
Age group and Getting enough quality sleep

Crosstab							
Count							
		Age group and Getting enough quality sleep					
		Never	Rarely	Sometimes	Often	Always	Total
Age Group	15-18	0	3	3	7	0	13
	18-25	2	9	19	6	1	37
	25-30	2	21	19	3	1	46
	30-35	1	3	2	3	1	10
Total		5	36	43	19	3	106

Source: Computed from Primary data INFERENCE:
Young adults (18-30) struggle most with sleep, especially ages 25-30, where 21 rarely get quality sleep. Only **3 people always sleep well**. Older individuals (30-35) seem to sleep better. Overall, poor sleep is common, with most people **rarely or sometimes** getting enough rest. Lifestyle and work may be factors.

VI. ANOVA ANALYSIS

Hypothesis No.1
Null Hypothesis (H$_0$): There is no significant association between Gender and Getting enough sleep
Alternative Hypothesis (H$_a$): There is a significant association between Gender and Getting enough sleep Gender and Getting enough sleep

Gender and Getting enough sleep

ANOVA					
Gender and Getting enough sleep					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.862	3	.954	.183	.141
Within Groups	52.232	102	.512		
Total	55.094	165			

Source: Computed from Primary data INFERENCE:

The ANOVA test shows no significant difference between gender and getting enough sleep (Sig. = 0.141, which is greater than 0.05). This means gender does not have a major impact on sleep quality in this study. Other factors like stress, lifestyle, or work may influence sleep more.

VII. CONCLUSION

The interaction between social media and anxiety among college students in Coimbatore is multifaceted and complex. Although social media is a means of communication, academic collaboration, and entertainment, excessive use and adverse online experiences can lead to increased anxiety levels. Cyberbullying, social comparison, and pressure to present an idealized online image are some of the factors that can have a negative effect on mental well-being.

In order to counter these impacts, students must adopt mindful use of social media, maintain healthy boundaries, and engage in activities that ensure mental well-being offline. Educational institutions and policy makers need to take active measures to increase awareness and have in place support mechanisms for anxious students. Through the development of a balanced use of social media, students can make the most of its benefits without exacerbating its negative impacts on their mental well-being.

REFERENCES

1.Dr. Abinayaa M.'s 2023 work, "Social Media Addiction and Its Impact on Mental Health Among Adolescents,"
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3.Boobalakrishnan, Jayaseelan, and Pichandy (2020)"Explored social media use among university students in Coimbatore"

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