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A Study to Asses the Influence of Social Media Usage on Anxiety Symptoms among Adolescents at Ganga College of Nursing

Anusree. P. M[1], Vijaya Barathi[2], Dr. Jebakumari Sutha[3], Dr. Akila Devi[4], Anitha Grace[5]

[1]*Ganga College of Nursing, Coimbatore, Tamil Nadu, India.*
[2]*Professor/HOD, Ganga College of Nursing, Coimbatore, Tamil Nadu, India.*
[3]*Principal, Ganga College of Nursing, Coimbatore, Tamil Nadu, India.*
[4]*Vice Principal, Ganga College of Nursing, Coimbatore, Tamil Nadu, India.*
[5]*Professor/HOD, Ganga College of Nursing, Coimbatore, Tamil Nadu, India.*

Abstract

Background: **Social media has become an integral part of adolescents' daily lives, influencing their communication, entertainment, and access to information. However, excessive social media engagement may be associated with psychological concerns, including anxiety symptoms. Understanding this relationship is important for promoting mental health and healthy digital habits among adolescents.**

Aim: **To assess social media usage and anxiety symptoms among adolescents at Ganga College of Nursing, Coimbatore, and examine the association between them.**

Methods: **A quantitative, descriptive cross-sectional study was conducted among 30 adolescents aged 17–19 years at Ganga College of Nursing, Coimbatore, using a non-probability convenience sampling technique. Data were collected using a structured questionnaire covering demographic characteristics and social media usage, along with an anxiety rating scale. Descriptive statistics and a chi-square test were used to analyse the data.**

Results: **The findings revealed that 56.7% of participants had moderate social media usage, 26.6% had high usage, and 16.7% had low usage. Regarding anxiety symptoms, 50% experienced moderate anxiety, 30% mild anxiety, and 20% severe anxiety. Entertainment was the primary purpose of social media usage for 73.3% of participants, while mobile phones were the most commonly used devices (86.7%). Although participants with higher social media usage tended to report higher anxiety symptoms, the association was not statistically significant at the 0.05 level ($\chi^2 = 8.24$, df = 4).**

Conclusion: **Moderate social media usage and moderate anxiety symptoms were common among the adolescents studied. Although a tendency toward higher anxiety symptoms was observed among participants with greater social media usage, a statistically significant association was not established.**

Keywords: **Adolescents, Anxiety symptoms, Digital well-being, Mental health, Nursing students, Social Media usage**

I. Introduction

Mental health plays a crucial role in overall well-being, particularly during adolescence, a transitional phase marked by rapid physical, emotional, and social changes. Adolescents aged 10-19 face heightened vulnerability to mental health issues due to factors like academic pressure, peer influences, and emerging digital lifestyles. In India, where over 250 million individuals fall into this age group, the rise of social media has amplified these risks, with 76% of 14-16-year-olds using smartphones for social platforms.

Need for the study

Anxiety's global incident cases among 10-24-year-olds reached 16.7 million in 2021, up 52% since 1990, with India's adolescent rates amplified by sociocultural pressures and digital immersion. Nursing students at Ganga Nursing College, Coimbatore—a facility training in core subjects like anatomy amid a 1:6 student-faculty ratio—face unique stressors like clinical rotations alongside social media habits. The researcher chose this topic due to limited localized data on social media's influence in this demographic, despite stronger correlations in Indian cohorts (r=0.45-0.59 for anxiety).

This study addresses the gap, informing interventions amid rising adolescent suicide trends linked to mental health.

Statement of the problem

"Assess the influence if social media usage on anxiety symptoms among adolescents"

Objectives:

- To determine the prevalence and severity of anxiety symptoms in this population.
- To analyze the correlation between social media usage patterns and anxiety symptoms.

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- To identify influencing factors like duration, platform type, and usage purpose.
- To recommend strategies for healthy social media habits.

Hypotheses

- H1: There is a significant positive correlation between daily social media usage hours and anxiety symptom scores ($p<0.05$).
- H0: No significant correlation exists between social media usage and anxiety symptoms.

Assumptions

- Adolescents accurately self-report social media habits and anxiety levels.
- Social media usage directly influences observable anxiety symptoms in this group.
- Findings from Ganga Nursing College generalize to similar urban nursing cohorts in Tamil Nadu.

Delimitations

- Limited to adolescents at Ganga Nursing College, excluding other Coimbatore institutions.
- Cross-sectional design captures current influence, not causality or long-term effects.
- Relies on self-reported data; excludes clinical diagnoses or physiological measures.

II. Methodology

Research Approach:

The research approach adopted for the present study was a quantitative approach, as it involves measurement and analysis of variables using numerical data and statistical techniques.

Research Design:

A descriptive cross-sectional research design was used for the study. This design helps in assessing the relationship between social media usage and anxiety symptoms at a single point in time without manipulation of variables.

Variables:

- Independent Variable: Social media usage (duration, frequency, type)
- Dependent Variable: Anxiety symptoms
- Research Variables: Influence of social media usage on anxiety
- Demographic Variables: Age, gender, year of study, residence, family income, type of family

Setting of the Study

The study was conducted at Ganga College of Nursing. The college provides undergraduate nursing education and has a diverse population of adolescent students.

Population

The population of the study consisted of all adolescent students studying at Ganga College of Nursing, Coimbatore. The total population size was approximately 150 students.

Sample Size:

The sample size for the present study was 30 adolescents.

Sampling Technique:

A non-probability convenience sampling technique was used to select the sample.

Criteria for Sample Selection

Inclusion Criteria

- Adolescents aged 17–19 years
- Students studying at Ganga College of Nursing
- Students who use social media
- Students willing to participate

Exclusion Criteria

- Students not available during data collection
- Students with diagnosed psychiatric illness

Tool

Section A: Demographic Variables
Section B: Social Media Usage Questionnaire
Section C: Anxiety Rating Scale

Reliability and Validity

Reliability of the tool was established using test-retest method, and the reliability coefficient was found to be $r = 0.82$, indicating good reliability.

Validity was ensured through expert validation.

Data Collection Procedure:

- The data collection procedure was carried out in the following steps:
- Obtained permission from the principal of Ganga College of Nursing
- Explained the purpose of the study to participants
- Obtained informed consent
- Selected samples using convenience sampling
- Collected data using structured questionnaire and anxiety scale

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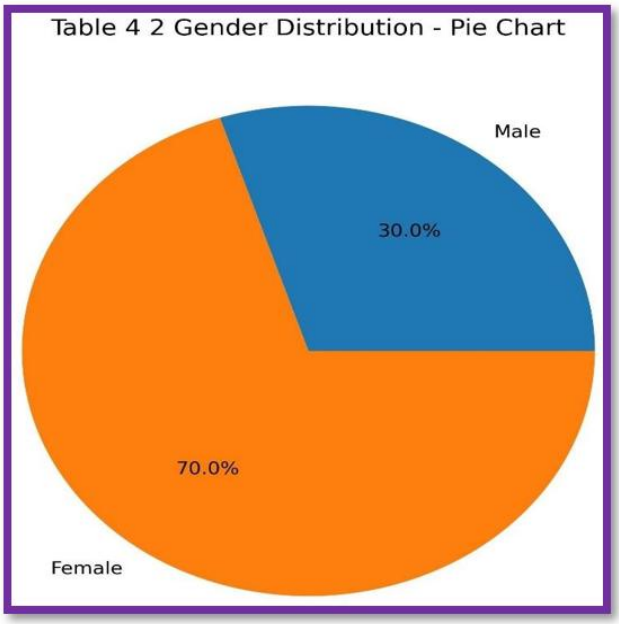
- Ensured confidentiality
- Statistical Methods
- Descriptive statistics (mean, percentage, frequency)
- Inferential statistics (correlation test)

III. Results And Discussion

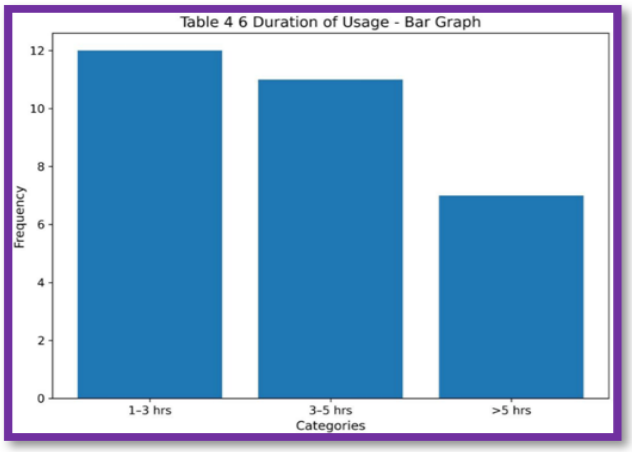
Table 4.1: Distribution of Adolescents According to Age (n = 30)

Age	Frequency(f)	Percentage (%)
17 years	2	6.7%
18years	4	13.3%
19 years to 21	24	80%

Distribution of Adolescents According to Gender



Distribution According to Duration of Social Media Usage



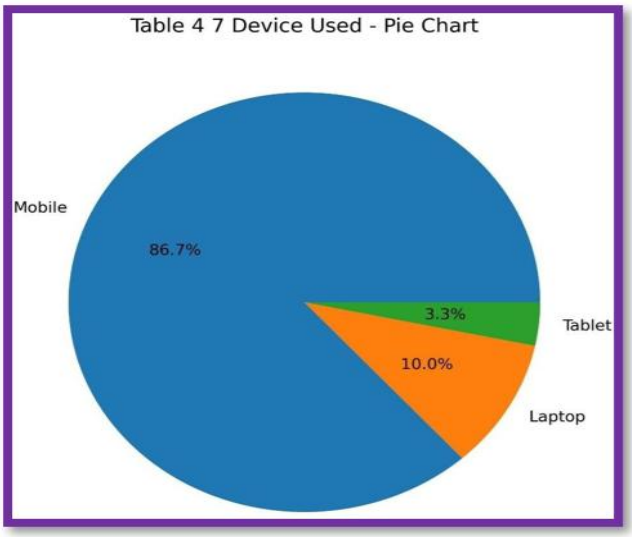
Distribution According to Residence (n = 30)

Residence	Frequency	Percentage
Urban	16	53.3%
Rural	14	46%

Distribution According to Type of Family (n = 30)

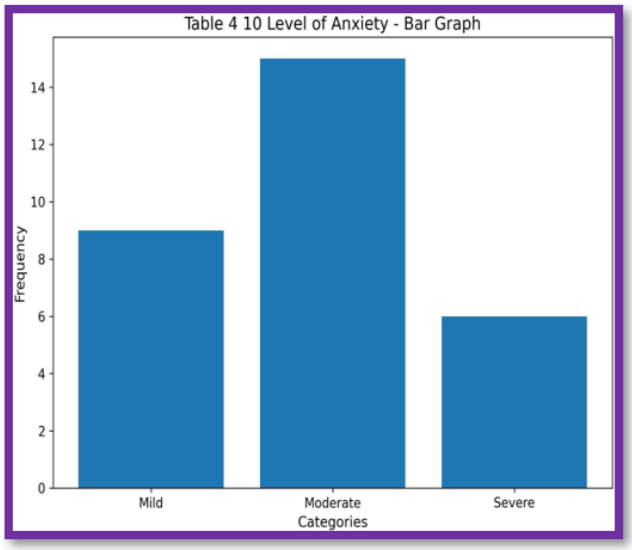
Type of family	Frequency	Percentage
Nuclear family	25	83.3%
Joint family	5	16.7%

Distribution According to Device Used for social media

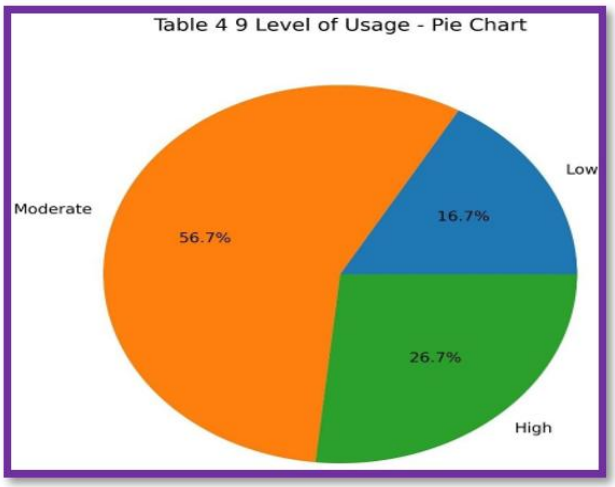


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Level of Anxiety Symptoms Among Adolescents



Level of Social Media Usage Among Adolescent

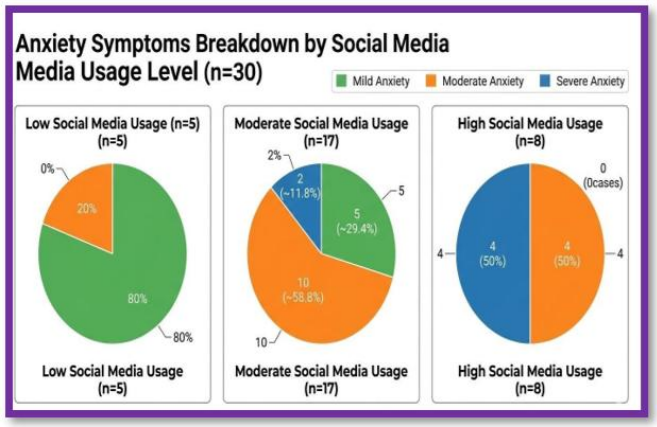


Distribution According to Purpose of Social Media Usage (n = 30)

Purpose	Frequency	Percentage
Entertainment	22	73.3%
Education	4	13.3%
Communication	2	6.7%
News/information	2	6.7%

Association Between Social Media Usage and Anxiety Symptoms

Social media usage	Mild	Moderate	Severe	Total
Low	4	1	0	5
Moderate	5	10	2	17
High	0	4	4	8
Total	9	15	6	30



IV. Results And Discussion

This chapter discusses the findings of the study conducted to assess the influence of social media usage on anxiety symptoms among adolescents at Ganga College of Nursing, Coimbatore.

Demographic Variables and Social Media Usage Patterns

The demographic analysis revealed that the majority of participants were 19 years old (80%), female (70%), and studying in the fourth year of B.Sc. Nursing (50%). Most participants belonged to nuclear families (83.3%) and slightly more than half resided in urban areas (53.3%).

Regarding social media usage patterns, the majority of adolescents used social media for 1–3 hours daily (40%), while 36.7% used it for 3–5 hours and 23.3% used it for more than 5 hours per day. Mobile phones were the most commonly used devices (86.7%), and entertainment was identified as the primary purpose of social media usage (73.3%).

Levels of Social Media Usage Among Adolescents:

The present study found that the majority of adolescents (56.7%) had moderate social media usage, while 26.6% had high usage and 16.7% had low usage.

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The findings support previous studies indicating that adolescents spend a substantial amount of time on social media platforms for communication, entertainment, and information. The moderate level of usage observed among most participants may be attributed to academic responsibilities and clinical postings that limit excessive screen time.

Levels of Anxiety Symptoms Among Adolescents: Nursing Education

- Mental health awareness related to social media usage should be incorporated into nursing curricula.
- Educational programs and workshops can be conducted to improve students' understanding of digital wellness.
- Nursing students should be educated regarding the psychological consequences of excessive social media use.
- Training programs can encourage students to maintain a balance between online activities and academic responsibilities.
- Faculty members can promote healthy technology usage through student guidance and mentoring.

The study revealed that 50% of adolescents experienced moderate anxiety symptoms, 30% experienced mild anxiety, and 20% experienced severe anxiety symptoms.

These findings are comparable with studies reporting that anxiety is common among adolescents due to academic pressure, social expectations, and lifestyle changes. Nursing students often face additional stress related to examinations, assignments, and clinical responsibilities, which may contribute to anxiety symptoms.

Association Between Social Media Usage and Anxiety Symptoms:

The present study found that adolescents with high social media usage tended to exhibit higher levels of anxiety symptoms. However, the chi-square test indicated that the association was not statistically significant at the 0.05 level of significance ($\chi^2 = 8.24$, $df = 4$).

Association Between Demographic Variables and Anxiety Symptoms:

The study explored the relationship between selected demographic variables and anxiety symptoms. Variations in anxiety levels were observed across age groups, gender, year of study, and residential background.

Female students appeared to report higher anxiety symptoms compared to male students, which is consistent with previous studies indicating greater psychological vulnerability among female adolescents. Students in higher academic years also demonstrated increased anxiety, possibly due to academic and professional responsibilities.

V. Conclusion

The present study concluded that social media usage is highly prevalent among adolescents studying at Ganga College of Nursing, Coimbatore. The majority of participants demonstrated moderate levels of social media usage and moderate anxiety symptoms.

The findings indicate that adolescents with higher social media usage tend to experience greater anxiety symptoms. Although the statistical analysis did not reveal a significant association between social media usage and anxiety symptoms, the observed trend suggests a potential influence of excessive social media engagement on adolescent mental health.

Nursing Implication:

Nursing Administration

- Nursing administrators should develop policies supporting mental health promotion among students.
- Regular mental health assessment and counseling services should be made available within educational institutions.
- Awareness campaigns on responsible social media usage can be organized periodically.
- Student support systems should be strengthened to address psychological concerns effectively.
- Administrative support should be provided for implementing wellness and stress-management programs.

Nursing Research

- Further research can be conducted using larger sample sizes to improve generalizability.
- Longitudinal studies may be undertaken to assess the long-term effects of social media usage on mental health.
- Interventional studies can be conducted to evaluate the effectiveness of educational programs on reducing anxiety symptoms.
- Comparative studies among different age groups and educational settings may provide broader insights.
- Research exploring specific social media platforms and their psychological effects can be encouraged.

Recommendations

- The study may be replicated with a larger sample size to increase the reliability and generalizability of findings.
- Similar studies may be conducted across multiple nursing colleges and educational institutions.
- Comparative studies may be carried out between nursing students and students from other academic disciplines such as engineering, arts, commerce, and medical sciences.
- Longitudinal studies may be undertaken to evaluate changes in anxiety symptoms over time.
- Experimental studies can be conducted to assess the effectiveness of interventions aimed at reducing excessive social media usage.
- Qualitative studies may be conducted to explore adolescents' perceptions and experiences related to social media and anxiety.
- Studies can be undertaken to investigate the influence of specific social media platforms such as Instagram, WhatsApp, Facebook, and YouTube on anxiety symptoms.
- Similar research may be conducted among school adolescents and young adults to compare findings across age groups.

Limitations

- The study was limited to a sample size of 30 adolescents.
- The study was conducted in only one nursing college, which limits the generalizability of findings.
- Non-probability convenience sampling technique was used, which may have introduced sampling bias.
- Data were collected using self-reported questionnaires, which may be influenced by response bias and social desirability bias.
- The study assessed participants at a single point in time and therefore could not establish cause-and-effect relationships. Only selected demographic variables were considered in the study.
- External factors such as academic stress, family environment, personal life events, and pre-existing psychological conditions were not fully controlled.
- The findings were limited to adolescents studying at Ganga College of Nursing, Coimbatore and may not represent all adolescent populations.

REFERENCES

BOOK REFERENCES

[1] American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed., text rev.). American Psychiatric Publishing.

[2] Basavanthappa, B. T. (2021). Nursing research (4th ed.). Jaypee Brothers Medical Publishers.

[3] Burns, N., & Grove, S. K. (2019). Understanding nursing research: Building an evidence-based practice (7th ed.). Elsevier.

[4] Polit, D. F., & Beck, C. T. (2021). Nursing research: Generating and assessing evidence for nursing practice (11th ed.). Wolters Kluwer.

[5] Sharma, S. K. (2020). Nursing research and statistics (4th ed.). Elsevier India.

[6] Townsend, M. C., & Morgan, K. I. (2021). Psychiatric mental health nursing: Concepts of care in evidence-based practice (10th ed.). F.A. Davis.

JOURNAL REFERENCES

[1] Anderson, M., & Jiang, J. (2023). Teens, social media and technology use. Journal of Adolescent Health, 72(3), 245–252.

[2] Keles, B., McCrae, N., & Grealish, A. (2023). A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents. International Journal of Adolescence and Youth, 28(1), 79–93.

[3] Twenge, J. M., & Campbell, W. K. (2024). Associations between screen time and mental health among adolescents. Journal of Youth Studies, 27(1), 1–15.

[4] Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2022). Social media use and anxiety in emerging adults. Journal of Affective Disorders, 307, 35–42.

[5] Verma, K., Gupta, R., & Singh, M. (2023). Anxiety symptoms among undergraduate nursing students: A cross-sectional study. International Journal of Nursing Education, 15(4), 102–108.

INTERNET REFERENCES

[1] American Psychological Association. (2024).Anxiety. https://www.apa.org/topics/anxiety

[2] National Institute of Mental Health. (2024).

[3] Pew Research Center. (2024).Teens, social

[4] World Health Organization. (2024). Adolescent mental health. https://www.who.int/news-

[5] room/fact-sheets/detail/adolescent-mental-health

[6] World Health Organization. (2024). Mental health of adolescents. https://www.who.int