

## The Impact of Social Media on Mental Health of Young Adolescent with Special Reference to Coimbatore

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### Abstract:

*This study investigates the relationship between social media use and mental health in young adolescents. It explores how social media consumption affects their psychological well-being, emotional health, and overall mental state. The research examines the impact of factors like screen time, platform type, and content on mental health outcomes such as anxiety, depression, and self-esteem. Using a descriptive research approach, this study surveyed 300 adolescent participants and analyzed the data using statistical methods. The findings provide insights into the complex link between social media use and mental health in adolescents, revealing both beneficial and detrimental effects.*

*Keywords: Social Media, Mental Health, Adolescents, Psychological Well-being, Anxiety, Depression, Self-esteem.*

### Introduction:

The widespread adoption of social media has profoundly impacted the lives of young adolescents, influencing their relationships, self-perception, and emotional well-being. This study delves into the effects of social media on adolescent mental health, focusing on critical factors such as usage frequency, content type, social comparison, and online interactions. By examining these factors, the research aims to discern both the positive and negative impacts of social media on adolescent mental health. Additionally, it explores the role of body image concerns, cyberbullying, and the pursuit of online validation in shaping mental health outcomes. Ultimately, this study seeks to provide actionable recommendations for parents, educators, and mental health professionals to minimize potential risks and foster healthier social media habits among adolescents.

### Objective of the Study:

- Investigate the effects of social media usage on the mental health of young adolescents.
- Analyze the correlation between social media habits (such as usage frequency and content type) and mental health indicators like anxiety, depression, and self-esteem.
- Examine the influence of social comparison, cyberbullying, and online validation on the mental well-being of adolescents.

## Review of literature:

1. **Fuchs, Molenaar, and Henkel (2020)** found that social media platforms like Instagram and Snapchat contribute to negative body image perceptions and low self-esteem in adolescents. The researchers used a mixed-methods approach, combining surveys and interviews, to explore the correlation between social comparison on social media and increased anxiety and depression.
2. **Kuss and Griffiths (2021)** examined the relationship between social media addiction and mental health disorders in adolescents. Their findings suggest a significant link between excessive social media use and the onset of anxiety, depression, and sleep disturbances. The study highlights the role of online bullying and the need for validation in exacerbating these mental health challenges.
3. **Rosen, Whittaker, and Levin (2022)** investigated the psychological effects of cyberbullying on adolescents. The study found that adolescents who experience cyberbullying are at a higher risk of developing mental health issues, including anxiety, depression, and low self-esteem. The researchers emphasize the importance of peer support and parental guidance in mitigating these effects.
4. **Lee, Lee, and Hwang (2020)** found that social media can have positive effects on adolescent mental health when used in moderation. The study argues that social media can provide emotional support, foster connections, and build a sense of community, ultimately reducing feelings of isolation.
5. **Farahani, Ghaffari, and Mammadov (2021)** examined the influence of social media on adolescent sleep patterns and mental health. The study found that late-night social media use negatively impacts sleep quality, leading to increased levels of depression and anxiety. The researchers highlight the need for better management of social media consumption to reduce adverse effects on mental health.

## Research Methodology:

This study utilizes a descriptive research design to systematically examine the impact of social media on the mental health of young adolescents. The design enables a comprehensive analysis of the relationship between social media usage and mental health outcomes, including anxiety, depression, and self-esteem issues. A total of 104 young adolescents were selected for the study through the snowball sampling technique, which involves identifying initial participants who meet the study's criteria and asking them to refer others, thereby expanding

the sample group. This technique is particularly useful when researching specific and hard-to-reach populations like adolescents.

Primary data was collected through a structured questionnaire distributed via Google Forms, ensuring easy access and convenience for respondents. The questionnaire captured key aspects of social media usage, including frequency, types of content consumed, and interactions on various platforms. To supplement the primary data, secondary data was gathered from existing literature, such as books, journals, and credible websites. This approach helped frame the study within the broader context of existing research, ensuring a comprehensive analysis of the topic. Overall, the mixed-methods approach provided a well-rounded perspective on the research objectives.

Key findings:

#### A) Simple Percentage Analysis

##### GENDER

Table no: 1

S.no	Particulars	Frequency	Percentage
1	Male	55	52.9
2	Female	48	46.2
3	Prefer Not To Say	1	1.0
	Total	104	100.0

##### Interpretation

The data reveals a near-even split in the gender distribution of respondents, with 52.9% identifying as male, 46.2% as female, and 1% preferring not to disclose their gender. This suggests that research on the impact of social media on young adolescents should consider the perspectives of both males and females. Given the slight majority of male respondents, it's essential to develop targeted strategies, content, and interventions that address the unique ways social media affects each gender. By doing so, we can better understand how males and females engage with social media and its subsequent effects on their well-being.

## AGE

Table no: 2

S.no	Particulars	Frequency	Percentage
1	15-18	8	7.7
2	18-24	85	81.7
3	24-30	11	10.6
4	Total	104	100.0

### Interpretation

The data reveals a significant age distribution among respondents, with a majority (81.7%) falling within the 18-24 age range. This is followed by a smaller proportion of 24-30-year-olds (10.6%) and 15-18-year-olds (7.7%). These findings suggest that when examining the impact of social media on young adolescents, the primary focus should be on the 18-24 age group, given their dominance in social media usage.

## How often do you use social media

Table no: 3

S.no	Particulars	Frequency	Percent
1	Daily	99	95.2
2	Weekly	3	2.9
3	Rarely	1	1.0
4	Never	1	1.0
5	Total	104	100.0

### Interpretation

The data reveals that an overwhelming majority of respondents (95.2%) use social media on a daily basis, with only a handful using it weekly (2.9%), rarely (1.0%), or never (1.0%). This indicates that social media has become an integral part of daily life for most individuals, particularly among the respondents. The exceptionally

high daily usage rate underscores the significance of social media platforms as a primary means of communication, entertainment, and information dissemination.

### How many hours per day do you spend on social media

Table no: 4

S.no	Particulars	Frequency	Percent
1	Less than 1 hour	10	9.6
2	1-2 hours	49	47.1
3	3-4 hours	22	21.2
4	More than 4 hours	23	22.1
5	Total	104	100.0

#### Interpretation

The data reveals that a substantial proportion of respondents dedicate significant time to social media, with 47.1% spending 1-2 hours, 22.1% spending over 4 hours, 21.2% spending 3-4 hours, and 9.6% spending less than 1 hour. Notably, over 90% of respondents spend a considerable amount of time on social media, indicating its pervasive presence in their daily lives.

### Do you compare yourself to others on social media

Table no: 5

S.no	Particulars	Frequency	Percent
1	Often	11	10.6
2	Sometimes	42	40.4
3	Rarely	21	20.2
4	Never	30	28.8
5	Total	104	100.0

## Interpretation

The data reveals that social media usage is inconsistent among respondents, with 40.4% using it sometimes, 28.8% never using it, 20.2% using it rarely, and 10.6% using it often. This variability suggests that engagement with social media is influenced by factors like personal preference, time constraints, or external factors. As a result, social media strategies and campaigns should be adapted to target both frequent and occasional users, while also exploring innovative ways to engage those who rarely or never use social media, ultimately ensuring a comprehensive approach that resonates with diverse user behaviours.

## B) CHI – SQUARE TEST

### 1) Chi-Square Tests for the Impact of Social Media on Anxiety and Depression in Young Adolescents

Null Hypothesis (H0): The impact of social media on the mental health of young adolescents is unrelated to anxiety and depression.

Alternative Hypothesis (H1): There is a statistically significant association between social media usage and increased anxiety and depression in the mental health of young adolescents.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	321.958 <sup>a</sup>	144	<.001
Likelihood Ratio	170.631	144	.064
Linear-by-Linear Association	29.521	1	<.001
N of Valid Cases	104		
a. 169 cells (100.0%) have expected count less than 5. The minimum expected count is .04.			

## Interpretation

The Pearson Chi-Square test reveals a highly significant relationship ( $p < 0.001$ ) between social media usage and anxiety and depression among young adolescents, prompting the rejection of the null hypothesis and acceptance of the alternative hypothesis. This suggests that social media significantly impacts adolescent mental health, particularly in terms of anxiety and depression. While the Linear-by-Linear Association result supports this conclusion, the Likelihood Ratio test yields a marginally non-significant result ( $p = 0.064$ ), indicating some data variability, but ultimately affirming the significant impact of social media on anxiety and depression.

### 2) Chi-Square Tests for the Impact of Social Media on Self-Esteem and Social Connectivity in Young Adolescents

Null Hypothesis (H0): The impact of social media on the self-esteem and social connectivity of young adolescents is insignificant.

Alternative Hypothesis (H1): There is a statistically significant association between social media usage and the self-esteem and social connectivity of young adolescents, influencing their mental health.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	177.384 <sup>a</sup>	132	.005
Likelihood Ratio	138.227	132	.338
Linear-by-Linear Association	8.345	1	.004
N of Valid Cases	104		
a. 156 cells (100.0%) have expected count less than 5. The minimum expected count is .04.			

## Interpretation

The Pearson Chi-Square test reveals a significant relationship ( $p\text{-value} = 0.005$ ) between social media usage and its impact on self-esteem and social connectivity among young adolescents, leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis. This suggests that social media is associated with changes in self-esteem and social connectivity, affecting adolescent mental health. While the Linear-by-Linear Association supports this finding ( $p\text{-value} = 0.004$ ), the Likelihood Ratio test yields a non-significant result ( $p\text{-value} = 0.338$ ), indicating some data variability. Nonetheless, the overall findings indicate that social media significantly influences both self-esteem and social connectivity in adolescents.

### 3) Chi-Square Tests for the Impact of Social Media on Sleep Quality and Anxiety in Young Adolescents

Null Hypothesis (H0): Social media usage has no significant effect on the sleep quality and anxiety levels of young adolescents.

Alternative Hypothesis (H1): There is a statistically significant association between social media usage and decreased sleep quality, as well as increased anxiety, in young adolescents.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	183.998 <sup>a</sup>	144	.014
Likelihood Ratio	158.169	144	.198
Linear-by-Linear Association	11.253	1	<.001
N of Valid Cases	104		
a. 169 cells (100.0%) have expected count less than 5. The minimum expected count is .04.			



## Interpretation

The Pearson Chi-Square test reveals a significant relationship ( $p\text{-value} = 0.014$ ) between social media usage and its impact on sleep quality and anxiety in young adolescents, leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis. This suggests a significant link between social media and changes in sleep quality and anxiety levels. While the Linear-by-Linear Association result provides even stronger evidence ( $p\text{-value} < 0.001$ ), the Likelihood Ratio test yields a non-significant result ( $p\text{-value} = 0.198$ ), indicating some data variability. Nonetheless, the overall findings indicate that social media significantly affects both sleep quality and anxiety in young adolescents, influencing their mental health.

## ANOVA

1. ANOVA TEST					
@ Do you feel anxious or stressed when you are unable to access social media					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.330	12	.444	2.016	.031
Within Groups	20.054	91	.220		
Total	25.385	103			

## Interpretation

The ANOVA test revealed significant differences in anxiety and stress levels among respondents when unable to access social media, with an F-value of 2.016 and a p-value of 0.031. Since the p-value is below the 0.05 significance threshold, the null hypothesis is rejected, indicating significant variance in anxiety and stress levels across different groups. The results show a significant "Between Groups" variation (Sum of Squares: 5.330, Mean Square: 0.444) and relatively smaller "Within Groups" variation (Sum of Squares: 20.054, Mean Square: 0.220). Overall, the findings suggest that social media access has a significant impact on mental health, with varying effects on anxiety and stress across different groups.

2. ANOVA					
@Do you compare yourself to others on social media					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.655	3	1.552	1.548	.207

Within Groups	100.229	100	1.002		
Total	104.885	103			

### Interpretation

The ANOVA test reveals no statistically significant difference between groups in comparing oneself to others on social media, with a low F-value (1.548) and a p-value (0.207) exceeding the 0.05 significance threshold. This leads to the non-rejection of the null hypothesis, suggesting no significant difference between groups. The large within-group variability (Sum of Squares Within Groups = 100.229) further supports this conclusion.

### Suggestions:

1. Social Media Platforms: Design features promoting positive interactions, discourage harmful practices, and introduce content fostering mental well-being.
2. Parents and Educators: Educate adolescents on responsible social media use through workshops on managing screen time, recognizing negative social comparisons, and developing healthy online habits.
3. Mental Health Professionals: Incorporate discussions on social media habits in counseling sessions, providing coping mechanisms and strategies to manage online interactions.
4. Policymakers: Establish regulations ensuring age-appropriate content, stronger protective measures against cyberbullying, and holding platforms accountable for creating safer environments.
5. Future Research: Conduct longitudinal studies exploring the long-term effects of social media on adolescent mental health, investigating platform-specific impacts, and examining the evolving relationship between social media use and mental well-being over time.

### Conclusion:

This study examined the significant relationship between social media usage and mental health outcomes in young adolescents, revealing both positive and negative effects on psychological well-being. The findings indicate a high prevalence of social media usage among adolescents, with significant time spent on platforms and frequent social comparison. This behavior is linked to negative mental health outcomes, including increased anxiety and depression. Statistical analysis confirms significant associations between social media usage and increased anxiety, depression, and decreased self-esteem, as well as poorer sleep quality. The study highlights the complex relationship between social media and adolescent mental health, emphasizing the need for monitoring, education, and promoting healthier habits. Future research should focus on developing interventions to mitigate the harmful effects of social media and promote a balanced approach to its use.

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