# EFFECTIVENESS OF SOCIAL MEDIA ON MENTAL HEALTH OF ADOLESCENT STUDENTS IN CHENNAI CITY

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## ABSTRACT

*Social media, in its broadest meaning, refers to any digital application or software that allows users to engage in social interaction. There is an increasing concern regarding the impact of social media on adolescent mental health. Primary objectives of this study are a) To assess the effects of social media on mental health of adolescent students and b) To analyse the association between mental health of adolescent students with their selected demographic variables. The sample size of the study comprises of 135 adolescents. They were selected by non-probability convenient sampling method. A structured questionnaire and Four point DASS were used to analyse the association of level of mental health among adolescent students. Out of 135 adolescents, 71(52.59%) had moderate distress, 35(25.93%) had mild distress and 29(21.48%) had severe distress. The mean score of mental health among adolescents was 63.35±25.32. The median was 51.0 with minimum score of 32.0 and maximum score of 120.0. The demographic variable 'Which social media channels you are most active on?' ($\chi^2$=13.726, p=0.033) had shown statistically significant association with level of mental health among adolescents at p<0.05 level. Social media use by some females can be concerning, since female adolescents report spending more time on social media and experience poorer mental health than male peers.*

**INDEX TERMS-** *Social media, Mental health, Adolescence, Gadgets, Depression, Screen time.*

## INTRODUCTION

Teenagers now have unprecedented access to digital content via a variety of gadgets, including smartphones, tablets, laptops, desktop computers, and gaming systems. Today's media landscape is more expansive and diverse than ever before. Social media is a key component of this ecosystem. Social media, in its broadest meaning, refers to any digital application or software that allows users to engage in social interaction. Recent research on the relationship between online communities and depression has found a common connection between the use of social networks by adolescents and depression, though there are some places where these findings are contradictory (like the relationship between screen time and mental health issues) and the quality of the evidence is not of great importance (Keles B, McCrae N, Grealish A, 2020). It is difficult to assign exact cause to the troubling trends of increasing depression, anxiety, self-harm and suicide in adolescents. However, with suicide being the fourth leading cause of death globally in people aged 15-25-years, it is important to discover which factors are influencing adolescents to commit suicide (Brandie Walton, Denise Rizzolo, 2022).

Yue-Yue You, Junwen Yang-Huang, Hein Raat, Amy van Grieken (2023) conducted a study to evaluate which factors were associated with heavy social media use on weekdays and weekends among 13-year-old adolescents (N=3727) in the Netherlands. The findings revealed that the prevalence of heavy social media use was 37.7% on a weekday and 59.6% on a weekend day. The study concluded that being a girl, living in a one-parent family, or having a longer computer playing time were associated with heavy social media use on weekdays and weekends.

Brandie Walton, Denise Rizzolo (2022) conducted a study to assess the effects of social media on adolescent mental health. The study reported that there is increasing concern regarding the impact of social media on adolescent mental health. Research has suggested a negative association between excessive times on digital media, more than 2-hours per day, and emotional health. Perhaps more importantly, adolescent vulnerabilities, such as existing anxiety or depression, when exposed to certain social media experiences can cause further decline of mental health. Chirag Gupta, Sangita Jogdand, Mayank Kumar (2022) conducted a study to review the impact of social media on the mental health of the adolescents and young adults. Smartphone and social media usage among teenagers are associated with an increase in mental distress, sleep deprivation, self-harming behaviours, and suicidality, according to evidence from numerous cross-sectional, longitudinal, and empirical studies.

## RESEARCH METHODOLOGY

Quantitative research approach was adopted for this study to accomplish the objectives of the study. The research design used for this study was cross-sectional descriptive method. Primary objectives of this study are a) To assess the effects of social

media on mental health of adolescent students and b) To analyse the association b e t w e e n mental health of adolescent students with t h e i r selected demographic variables. The sample size of the study comprises of 135 adolescents. They were selected by non-probability convenient sampling method. The Inclusion criteria are; Adolescents without any other psychological problems, available at the time of data collection period and willing to participate.

The instrument envisaged for use in this study was divided into two sections. 1)A structured questionnaire to assess the demographic variables of the adolescent school children and 2) Four point DASS (Depression Anxiety Stress scale) which consists of 42 statements with 4 point Likert scale and can be coded as Never – 0, Sometimes – 1, Often – 2 and Almost always – 3. The maximum score is 126.

**Table 1: Scoring and Interpretation**

| Total Score | Depressive Severity |
|---|---|
| 1-42 | Mild distress |
| 43 – 84 | Moderate distress |
| 85 – 126 | Severe distress |

The duration of intervention was 25 to 30 minutes. Frequency and percentage distribution were used to analyse the demographic data, level of mental health among the adolescent school children. Mean and standard deviation was used to assess the level of mental health among the adolescent school children. Chi-square was used to analyse the association of level of mental health among the adolescent school children with their selected demographic variables.

## DATA ANALYSIS AND INTERPRETATION

The table 2 shows that most of the adolescents, (71; 52.6%) were aged between 13–15 years, 89(65.9%) were male, 82(60.7%) were Hindus, 100(74.1%) were residing in urban area and 85(63.0%) had secondary education.

**Table 2: Percentage Distribution and Association of Demographic Variables of Adolescent Students with their Mental Health**

| Demographic Variables | | Frequency N=135 | Percentage (%) | Chi-Square Test |
|---|---|---|---|---|
| Age in years | 10 – 12 | 33 | 24.4 | $\chi^2$=1.569 d.f=4 p=0.814 N.S |
| | 13 – 15 | 71 | 52.6 | |
| | 16 – 18 | 31 | 23.0 | |
| Sex | Male | 89 | 65.9 | $\chi^2$=3.195 d.f=2 p=0.202 N.S |
| | Female | 46 | 34.1 | |
| Religion | Hindu | 82 | 60.7 | $\chi^2$=0.453 d.f=4 p=0.978 N.S |
| | Christian | 37 | 27.4 | |
| | Muslim | 16 | 11.9 | |
| Residence | Urban | 100 | 74.1 | $\chi^2$=1.079 d.f=2 p=0.583 N.S |
| | Rural | 35 | 25.9 | |
| Education | Primary | 24 | 17.8 | $\chi^2$=3.255 d.f=4 p=0.516 N.S |
| | Secondary | 85 | 63.0 | |
| | Higher secondary | 26 | 19.3 | |

Note: *p<0.05, S – Significant, N.S – Not Significant

The table 3 shows that 89 adolescents (65.9%) had spent 2 – 3 hours on social media every day, 94(69.6%) were active on Facebook, 92(68.1%) had reported that social media is useful for learning, 71(52.6%) had used networking for social media, 83(61.5%) were on 2 social platforms, 135(100%) had used social media everyday, 76(56.3%) had posted somewhat often on social media, 135(100%) said that social media as the first thing they check in the morning, 124(91.9%) had not bullied online and 135(100%) were harassed online. The table also shows that the demographic variable 'which social media channels are you most active on' ($\chi^2$=13.726, p=0.033) had shown statistically significant association with level of mental health among adolescents at p<0.05 level and the other demographic variables had not shown statistically significant association with level of mental health among adolescents.

**Table 3 Association of Level of Mental Health Among the Adolescent students**

| Demographic Variables | | Frequency N=135 | Percentage (%) | Chi-Square Test |
|---|---|---|---|---|
| 1) How many hours do you spend on social media every day? | 1 hour | 28 | 20.7 | $\chi^2$=4.015 d.f=6 p=0.675 N.S |
| | 2 – 3 hours | 89 | 65.9 | |
| | 3 – 5 hours | 14 | 10.4 | |
| | More than 5 hours | 4 | 3.0 | |
| 2)Which social media channels are you most active on? | Facebook | 94 | 69.6 | $\chi^2$=13.726 d.f=6 p=0.033 S* |
| | Instagram | 24 | 17.8 | |
| | Snapchat | 4 | 3.0 | |
| | Twitter | 13 | 9.6 | |
| 3)How useful is social media for learning? | Very useful | 92 | 68.1 | $\chi^2$=3.790 d.f=4 p=0.435 N.S |
| | Somewhat useful | 36 | 26.7 | |
| | Not useful | 7 | 5.2 | |
| 4)What do you use social media for? | Networking | 71 | 52.6 | $\chi^2$=5.208 d.f=6 p=0.517 N.S |
| | Business | 4 | 3.0 | |
| | Learning | 53 | 39.2 | |
| | Others | 7 | 5.2 | |
| 5)How many social platforms are you on? | 1 | 22 | 16.3 | $\chi^2$=2.955 d.f=6 p=0.814 N.S |
| | 2 | 83 | 61.5 | |
| | 3 | 21 | 15.5 | |
| | 4 | 9 | 6.7 | |
| | 5 and above | - | - | |
| 6)How often do you use social media? | Every day | 135 | 100.0 | - |
| | Weekly | - | - | |
| | Monthly | - | - | |
| | Others | - | - | |
| 7)How often do you post on social media? | Very often | 36 | 26.7 | $\chi^2$=6.450 d.f=4 p=0.168 N.S |
| | Somewhat often | 76 | 56.3 | |
| | Rarely | 23 | 17.0 | |
| 8)Is social media the first thing you check in the morning? | Yes | 135 | 100.0 | - |
| | No | - | - | |
| 9)Have you ever been bullied online? | Yes | 11 | 8.1 | $\chi^2$=0.473 d.f=2 p=0.790 N.S |
| | No | 124 | 91.9 | |
| 10)Have you ever been harassed online? | Yes | 135 | 100.0 | - |
| | No | - | - | |

Note: *p<0.05, S – Significant, N.S – Not Significant

**Table 4: Frequency and Percentage Distribution of level of Mental Health Among the Adolescent Students**

| Level of Mental Health | Frequency (N-135) | Percentage |
|---|---|---|
| Mild Distress (1 – 42) | 35 | 25.93 |
| Moderate Distress (43 – 84) | 71 | 52.59 |
| Severe Distress (85 – 126) | 29 | 21.48 |

The above table (4) shows that among the adolescents, 71(52.59%) had moderate distress, 35(25.93%) had mild distress and 29(21.48%) had severe distress.

**Table 5: Assessment of Mental Health Among Adolescents**

| Depression ( N = 135) | Score |
|---|---|
| Minimum | 32.0 |
| Maximum | 120.0 |
| Median | 51.0 |
| Mean | 63.35 |
| S.D | 25.32 |

The above table 5 shows that the mean score of mental health among adolescents was 63.35±25.32. The median was 51.0 with minimum score of 32.0 and maximum score of 120.0.

## DISCUSSION

The analysis revealed in table 4 shows that among the adolescents, 71(52.59%) had moderate distress, 35(25.93%) had mild distress and 29(21.48%) had severe distress. The findings of this study were consistent by the study conducted by Chirag Gupta, Sangita Jogdand, Mayank Kumar (2022) to review the impact of social media on the mental health of the adolescents and young adults. Despite rising evidence of the harmful impacts of social media on adolescent mental health, there is still a paucity of empirical research on how teenagers understand social media, notably as a body of wisdom, or how they can use the larger modern media discourses to voice an opinion (Strasburger, et al 2012).

The youth use smartphones and other media in high numbers, which leads to chronic sleep deprivation, having a detrimental impact on cognitive ability, school performance, and socio-emotional functioning. Smartphone and social media use among teenagers are associated with an increase in mental distress, self-harming behaviours, and suicidality, according to evidence from numerous cross-sectional, longitudinal, and empirical studies (Shannon, et al 2022). The analysis revealed in the table 3 shows that the demographic variable 'Which social media channels you are most active on?' ($\chi^2$=13.726, p=0.033) had shown statistically significant association with level of mental health among adolescents at p<0.05 level and the other demographic variables had not shown statistically significant association with level of mental health among adolescents. Hence the research hypothesis

## CONCLUSION

The focus of research on social media use is to identify individual experiences putting adolescent emotional well-being at risk. Individual user vulnerabilities and the effects of digital media on those vulnerabilities is suspected of causing them to engage with social media in adaptive or maladaptive ways. For example, adolescent tendencies toward depression, anxiety, and loneliness affect how they use social media. Additionally, social media use by some females can be concerning, since female adolescents report spending more time on social media and experience poorer mental health than male peers (Brandie Walton, Denise Rizzolo, 2022).

The present study is to assess the effects of social media on mental health of adolescent group in selected schools in Chennai. The study concluded that majority of the adolescents who were exposed to social media had mild to moderate distress and hence necessary health education on impact of extensive exposure to social media on mental health must be imparted to the adolescents to improve their mental health and quality of life. The investigator had drawn the following implications (Pew ResearchCenter, 2018) from this study which is the vital concern to the field of nursing practice, nursing education, nursing administration and nursing research.

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