

# Electronic Media Usage and It's Association with Mental Health in Adolescents-Indian Study

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**Abstract:** *The media that rely on an electromechanical audience to obtain the content are known as electronic media, including social networking sites (SNSs), video or online games, radio, television, movies, the internet, mobile devices, and more [1]. According to a recent report from Global Digital 2019 globally there are 5.11 billion unique mobile users, 4.39 billion internet users, 3.48 billion social media users, during the year 2019 and an increase of 2% among mobile users & 9% each for Internet and social media users was seen as compared to last year. Nearly 3.26 billion people use social media on mobile devices in Jan 2019, with a growth of 297 million new users representing a year-on-year increase of more than 10% [2]. The effect of social media on adolescents' well-being has come to be a concern due to a simultaneous growth in intellectual fitness problems. [3]*

**Keywords:** Electronic Media, Adolescents, Mental health

## 1. Introduction

Present study is carried out to examine the pattern and length of digital media utilization via Adolescent as properly to discover the effect of digital media net on psychosocial fitness of young people. TCS in their every year Gen-Y survey (2014) India has contemplated the digital conduct of faculties' students in India. The survey performed over 14 Indian towns and 17478 college students aged among 12-18 years proven that smartphones are now turning into the essential and the maximum famous tool for Indian teenagers. At an average 65.71% student owned cell smartphone compared to sixty five.64% domestic computer, cellular telephones no longer only have highest possession, but their utilization is also plenty extra than any gadgets owned by means of Indian college students at all Indian degree over 33. Sixty five% of the respondents stated that they use cellular telephones maximum as compared to computes (21.27%) and laptop (18.03%) [4]. Gupta R, Rasanias SK, Acharya AS (2014) in their community primarily based move sectional examine finished on city kids of Delhi determined that tv became the most preferred medium (98%) of entertainment time hobby among other media together with computer and video games, television viewing hours ranges from 30 min to five hours with an average duration of two h/day. Girls spent extra time (imply+1.99h) on looking television than boys (mean+1.86h) [5]. Researchers discovered that common display time become 6. fifty nine+ 1.24 hours in urban boys, three.28 +zero.17 hours in rural boys and four.28 +zero. forty nine hours in city ladies & 4.07 +0. forty four hours in rural girls. a few of the rural boys when the use of screen time was more than 2 hours, there has been 13.57 times extended affiliation among display screen time and emotional issues. In city boys, thirteen.24 times extended affiliation with behavior problems, nine times expanded association with hyperactivity, inattention and peer troubles and four.86 times elevated association with seasoned-social troubles were cited [6].

## 2. Aim & Objectives

**Aim:** To study electronic media usage and its association with mental health in adolescents.

### Objectives:

- 1) To assess the prevalence, pattern of usage and duration of electronic media usage among adolescents of 13 to 17 years' age group.
- 2) To assess the relationship between electronic media usage with mental health among target population. (13 to 17 years of age group).

## 3. Material and Methods

Any adolescent studying in school, fulfilling the inclusion and exclusion criteria was approached for the study and criteria for eligibility laid for the subject for the study considered and after consent taken from caregiver, the subject was put on scales. The evaluation was made on the basis of obtained results and scores of the applied tools, information regarding socio-demographic profile, extent and pattern of electronic media (radio, television, film, internet, mobile or cell phones, social networking sites (SNSs), video or online games etc.) use, psychosocial health issues such as stress, isolation, attention deficit, aggression, anxiety, sleep disturbance, depression etc. will be obtained from subjects using Young's Internet Addiction Scale.

### Sample Size

Sample size has been calculated using the formula:

$$N = Z (1-a/2) 2 P Q/L 2` Z$$

Where,  $Z (1-a/2) = 1.96$  (95% confidence interval)

$$Z (1-a/2) 2 = 3.84 = 4$$

$$\text{So, } N = 4 P Q/L 2$$

Where, P = Prevalence of electronic media usage (61.3%) [7]

$$Q = 1-P = 38.7$$

$$L = \text{Allowable error (10\% of P)} = 394$$

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Sample size was calculated to be 394 and allowing for 10% non-response, the final sample size came out to 434. Therefore, it is decided to enroll 450 study subjects for the present study.

#### Inclusion Criteria:

Adolescents willing to give consent for participation in study.

The subject eligibility criteria to participate in study:

- 1) Age 10-17 years.
- 2) Education standard must reach to 5 th grade onwards.
- 3) Adolescents who have internet connection at home.
- 4) Adolescents who have access to electronic media.

#### Exclusion Criteria:

- 1) Physical/mental inability among the study subjects leading to inability of electronic media usage.
- 2) Adolescents using electronic media for educational purposes/academic classes.

- 3) Any Pre-existing severe mental disorders (like Schizophrenia, Schizoaffective disorder, Bipolar mood disorder etc.)

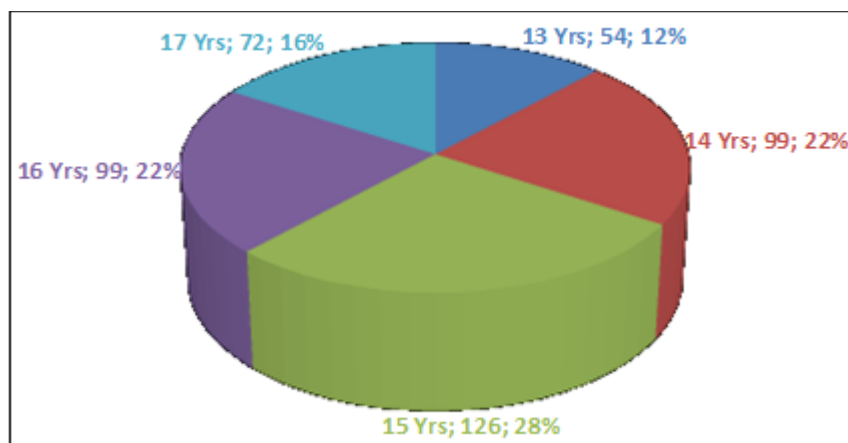
Study duration: 12 months (January 2022-January 2023)

Statistical Software, STATA (Version 16) used for statistical analysis. The P-value 0.05 was considered for statistical significance.

## 4. Results and Observations

**Table 1**

| Age    | Frequency | Percent |
|--------|-----------|---------|
| 13 Yrs | 54        | 12      |
| 14 Yrs | 99        | 22      |
| 15 Yrs | 126       | 28      |
| 16 Yrs | 99        | 22      |
| 17 Yrs | 72        | 16      |
| Total  | 450       | 100     |



**Figure 1**

This shows the distribution of Age of Adolescents. 13 years old were total 54 in number which makes 12% of the total sample size. 14 years old were 99 in number which makes 22% of the total sample size. 15 years old were 126 in number which makes 28% of the total sample size. 16 years old were 99 in number which makes 22% of the total sample size. 17 years old were 72 in number which makes 16% of the total sample size.

**Table 2**

|                                 |  | Frequency | Percent |
|---------------------------------|--|-----------|---------|
| Young's Internet Addiction Test | Average                                      | 162       | 36      |
| Score                           | Experiencing occasional or frequent problems | 234       | 52      |
|                                 | Usage is causing significant problems        | 54        | 12      |

IAT\*-Internet Addiction Test Score:

20-49= you are an average on-line user. You may surf the Web a bit too long at times, but you have control over your usage.

50-79= you are experiencing occasional or frequent problems because of the internet. You should consider their full impact on your life.

80-100= your internet usage is causing significant problems in your life. You should evaluate the impact of the Internet on your life and address the problems directly caused by your Internet usage.

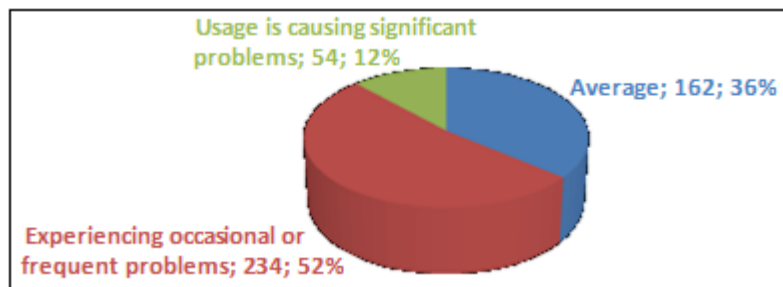


Figure 2

## 5. Discussion

We have tried to systematically analyze the existing literature on the effect of electronic media use on intellectual health. although the outcomes of the observation had been nolonger completely constant, this overview discovered a preferred affiliation between digital media use and intellectual fitness troubles. Although there is positive proof for a link among social media and intellectual fitness, the opposite has been pronounced.

The preceding examine found a 70% growth in self-suggested depressive signs and symptoms in some of the institution with the use of social media. Since in Post COVID-19 pandemic the use of electronic media use practice was not only used for entertainment purpose but for other uses. The mode of emerging electronic education to all after group studies in practice. The wide usages are handset telephones, mobile and tablets primary to other mode. The study indicated 450 samples of students identifies by age 13-17 yrs adolescents age group belonging from class 9<sup>th</sup>-12<sup>th</sup> standard.

The study supported by the funding of Payton (2019) found depression was more than merely rumour, Zhang et al (2019) another researcher also conducted study on the same to find out the relationship between depressive symptoms and media use in adolescent population of 16205 between 2013-2014. He found relationship between increased screen time to depression. Since over study also has been similar finding of increased preference of gadget that outdoor activity and disturbed sleep, awake pattern as well as shift in mood.

## 6. Conclusion

Internet and mobile use in age group of 13-17years old adolescents, are mostly video calling studies are belonging mostly from nuclear family. Most of the purpose of use is for recreational activities, followed by communication, sharing ideas, gaming and visiting adult sites. The maximum behaviour changes after internet use are change in awakening time followed by sleep changes, preference of being alone while using electronic media over outdoor playful activities. Overuse of media will have to manifest as depression, anxiety and stress in successive forms.

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