MENTAL HEALTH AND SOCIAL MEDIA ADDICTION OF SECONDARY SCHOOL STUDENTS IN RELATION TO LOCALE DURING PANDEMIC COVID-19

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Abstract: The present study was conducted with the main objectives to study the mental health and social media addiction among secondary students with respect to a certain variable like locale (rural, urban) and also to find out the relationship between mental health and social media addiction. The data was collected by selecting randomly 156 secondary school students by using a self made questionnaire “Social Media Addiction questionnaire Student Form”- developed by Researcher and “Mental Health Battery” by A. K. Singh & Alpana Sengupta. The sample consisted of 53% students from rural schools and 47% students from urban schools. Descriptive research method was employed to carry out this quantitative research work. Normalization of data was done by using Histogram with normal probability curve. Descriptive Statistical technique like mean and standard deviation and inferential statistics like ‘t’-test and correlation were used to analyze and interpret the data. All hypotheses were checked at the 0.05 level of significance. Result showed that significant differences of mental health exist rural and urban students (t=4.60, p=0.00) and significance differences of social media addiction exist between rural and urban students (t=2.62, p=0.009). Moreover, there exist a significant negative relationship (r= -0.769) between mental health and social media addiction. These finding will be helpful to aware about the use of social media and the better way to use social media for mentally healthy students. Present study offers to make insight in the social media user to eliminate the effect of addiction. Social media directly or indirectly affects the mental health of younger generation. These findings suggest that helping school students to gain a better understanding of the adverse effects of social media addiction.

Index Terms - Social Media, Addiction, Mental Health, School Students.

I. INTRODUCTION

Adolescence is the period of growth and development that occurs before adulthood and after childhood from ages 10 to 19. It is represented by the critical transformation in the lifespan and is characterized by a tremendous pace of growth and change that is second only to the growth at infancy. Adolescents are not reached by the program for adult’s mental well-being is the pillar behind happy and confident adolescent. Human beings are highly intellectual, spiritual, and unique creations of nature. Each human being is born with spatial potentials. Due to these unique characteristics, human beings are super and differ from all creations of nature. Education is one of the most important human activities which is helpful in the development of an individual's internal and external potentials. Education opens the door to the development of intellectual, spiritual, social, cultural civilization and modernization. In other words, it is a powerful key of all-round development of individual and thereby nation. Highly educated citizens of any country are assets for national development. This means that quality education is essential for the higher development of any nation. Some effective factors like motivation, adjustment, personality, achievement motivation, and other factors are very important in the development of quality achievement of learners. Due to these deficiencies, academic performance deficiency is enhancing in learners and raising the problem of frustration. Frustration is creating a situation of suicide. Therefore, the development of mental health at secondary, higher secondary, and college levels is very essential challenging in front of teachers, parents, teacher educators, and
Governments. The adolescence period is a very important and crucial stage of life. It is a stage of physical and psychological transformation. At this stage, emotional, social, physical, religious, attitudinal changes develop vastly.

Not only having an educative role, social media increases connections and communications. If social media is used properly, it builds bridges over barriers and strengthens relationships. It encourages community participation and boosts up confidence. Due to the overuse of Facebook, YouTube, Instagram adolescents are forgetting the basic values and culture, which leads to families breaking up. Internet addiction means not resisting the impulse to spend time on the internet and not feeling the importance of the internet. The internet addict tends to be very nervous and damaging, thereby damaging relationships at work, family, and social life. Studies have described a variety of terms to describe unhealthy interaction with the internet, such as internet addiction and internet behavior addiction. Internet addiction is defined as an individual’s inability to control his/her internet which eventually causes psychological, social damage. Due to the overuses effect, it has a bad impact on the brain, social media is addictive both physically and psychologically. According to a new study self-disclosure on social networking sites lights up some part of the brain and its chemical messenger pathways affect decisions and sensations.

STATEMENT OF THE PROBLEM

“MENTAL HEALTH AND SOCIAL MEDIA ADDICTION OF SECONDARY SCHOOL STUDENTS IN RELATION TO LOCALE DURING PANDEMIC COVID-19”

OBJECTIVES OF THE STUDY

Objective-1: To compare the Mental Health of secondary school students on locale variation.

Objective-2: To compare the social media addiction of secondary school students on locale variation.

Objective-3: To study the relationship between Mental Health and Social media addiction of secondary school students.

HYPOTHESIS

Ho1: There will be no significant difference between rural and urban students on Mental Health.

Ho2: There will be no significant difference between rural and urban students on social media addiction.

Ho3: There will be no significant relationship between mental health and social media addiction.

OPERATIONAL DEFINITION OF THE TERMS

MENTAL HEALTH:

The term mental health is constituted by two words—mental and health. Mental means mind. It is the cognitive or intellectual power of humans. The word health is the different things to different people, depending on the situation combined with other words. Cutts and Mosely (1941):—Mental Health is the talent to regulate suitably toward the different trains of the surroundings; we meet in life and mental hygiene as the means we take to assure this adjustment.

K. A. Menninger (1967) defines, Mental health as the adjustment of human beings to the world and each other with a maximum of effectiveness and happiness. It is the ability to maintain temper, alert intelligence, a happy disposition, and socially considerate behavior.

SOCIAL MEDIA ADDICTION:

Addiction is defined as problematic behaviour that occurs in a repetitive manner. Social media addiction is a behavioural addiction, defined by being overly concerned about social media, driven by an uncontrollable urge to log on to or use social media. Engagement in social media leads to a favourable change in psychological and emotional states. Social Media are Facebook, Twitter, Instagram, Snapchat, etc.

DELIMITATION

- The present study is delimited to rural and urban Government aided schools affiliated by WBBSE of Bankura district in West Bengal.
- The study is delimited to the students of secondary level.
SIGNIFICANCE OF THE STUDY

When someone experiences something rewarding or refreshing, the user’s addictive neurons on the principle dopamine-producing regions are activated causing dopamine levels to rise therefore the brain received a reward and associated the drug or activity with positive reinforcement. In the case of a social media user, when the user gets a notification such as a like or mention in comments, the brain gets a rush of dopamine that sends it along reward pathways causing him or her to feel pleasure. Social media provides an endless amount of immediate reward in the form of attention from others with relatively minimum effort. Social media use becomes problematic, when someone views social media networking as an important coping mechanism to relieve stress, loneliness, or depression for these people. The repetitive use of social media like Facebook, Snap chat, Instagram leads to interpersonal problems like ignoring, depression, loneliness, aggressiveness, etc. Social media is now not a new concept that is constantly evolving and growing in popularity. Due to this, there are many unknown and unpredictable variables associated with it. Recently, it has been discovered that the excessive use of social media platforms can have adverse effects on the psychological health of its users. However, the full extent of how the use of social media affects school students’ mental health has yet to be determined. A mental health assessment gives your doctor a picture of the way you feel, think, reason, and remember. The mental health test assesses emotional well-being via a series of questions and also includes a physical examination. For children, mental health will be tailored to the child’s age and stage of development. A mental health assessment is use to diagnose the conditions of mental state like anxiety, depression, schizophrenia, postnatal depression, eating disorders, and psychotic illnesses.

II. REVIEWS OF RELATED LITERATURE:

Reviews Related to Mental Health:

Senad, R. R (2018) found that boys Students high Emotional stability than Girls Students, Girls Students high Overall Adjustment than Boys Students, Girls Students high Autonomy than Boys Students. There was no significant difference between Boys and Girls School Going students with Mental Health dimension on Security- Insecurity.

Thirukkovel, V. K (2015) suggested that Residential school students perceived more Academic stress and problems of mental health when compared to the Non residential school students. Caste of the student is significantly influencing the mental health of the student.

Dhurandher, D & Agrawal, A (2015) found that there was no significant difference seen in the mental health of boys and girls of higher secondary school. Thus there was no significant difference between boys and girls on the basis of the mental health were retrieved in the study, and also there was no significant difference had seen in the mental health of Science and art group except autonomy. Thus there was no significant difference between Science and art group on the basis of mental health rejected in the study.

Haddadi, K (2004) studied the relationship of emotional intelligence with cognitive mental health and academic achievement and found that components of emotional intelligence were significantly correlated with cognitive mental health and academic achievement of male and female university students. On the other hand, the difference between male and female university students considering the correlation of emotional intelligence with cognitive mental health and academic achievement was significant.

Kaur, H. & Kalaramna, A (2004) conducted on his study to assess the existing levels of interrelationship between home environment, social intelligence and socio-economic status across various age levels and two sexes. Home environment also showed positive impact on social intelligence.

Danni (2000) pointed out in his study that social intelligence was significantly related to tactic other enhancement. It was found that global impression management score was influenced only by neuroticism dimension of personality. The interaction effect of social intelligence and job cadre was found to be significant for impression management global score. The effect of neuroticism as well as social intelligence was significant for tactics changing with the situation and opinion conformity.

Reviews Related to Social Media Addiction:

Yubo Hou, Dan Xiong, et.al. (2019) conducted a study on “Social media addiction: its impact, mediation and intervention” revealed that social media addiction was negatively associated with college students’ mental health and academic performance. Furthermore, in line with previous findings that social media addiction negatively affects self esteem and that low self-esteem is associated with mental disorders.

Gilbert M Talaue,, Ali Alsaad, (2018) conducted a study on “The impact of social media on academic performance of selected college students” revealed that twenty-three strongly agreed that social media has negative effect on their academic performance. So, the social media, which also has a familiar name social networks or web, chooses students as its potential visitors. Finally, students must themselves realize all the potential harm from excessive use of social networks, and responsibly approach the learning process and academic results.
Aengiz Sahin (2017) conducted a study on “The predictive level of Social Media Addiction for life satisfaction: A study on university students” found that the students’ level of Social media addiction is low while their level of satisfaction is moderate. A significant negative correlation was observed between the student’s life satisfaction and social media addiction and their average scores on virtual tolerance and virtual communication defined here as the sub dimensions of social media addiction. The regression analysis showed, social media addiction is important predictor of the life-satisfaction.

S. Ashwini Veronica, Dr, Umesh Samuel. (2015) conducted a study on “Social Media Addiction among Adolescents with special reference to Facebook Addiction” revealed that students are more drawn to Facebook as it has many gaming applications and instant responsive chat facilities and are caught up in the virtual world for hours and hours. These games make them unaware of their time, their responsibilities and goals are set at achieving and accomplishing the various levels in the game. A continuous sequential solution cannot be found. Issues can be solved by focusing on various attitudes. A multifocal attitude can change the issue; it can even change a problem psychiatrist’s opinion about mental health. Mental health is that health that has to be maintained and balanced in any human being.

Daria J, Kuss and Mark D. Griffintns (2011) conducted a study on “Online Social Networking and Addiction- A review of the psychological literature” found that online survey of 131 psychology students in the US indicated that 78% used SNS’s and that 82% of males and 75% females had SNS profiles of those, 57% used their SNS on a daily basis. Overall, the engagement in particular activities on SNS, such as social searching and the personality traits that were found to be associated with greater extents of SNS usage may serve as an anchor point for future studies in terms of defining populations.

All reviews identified limited data on the diagnostic test accuracy of screening measures in the different sample and population. As with the clinical trial data, the majority of the studies were not conducted in the Bankura district and many were carried out in settings that may differ from typical settings in the rural and urban for adolescents who offend. So the researcher has been taken the research topic as “Mental health and Social media addiction among school students in relation to gender and locale during pandemic covid-19.

**III. METHODOLOGY**

### Variables:

- **Major Variable-**
  - Mental Health
  - Social Media Addiction

- **Categorical Variables-**
  - Locale (Rural & Urban)

### Population & Sample

This study was conducted in the Bankura District of state West Bengal. The population of this study includes secondary students of all the secondary level schools/ institutions in Bankura district which are recognized by WBBSE.

The sample was comprised the boys students and girls students. Sample was collected from Science and arts discipline. Total no of 170 students were selected for this study. It is found that 156 students comprised the actual sample.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency(sample)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locale</td>
<td>Rural</td>
<td>82</td>
<td>53 %</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>74</td>
<td>47 %</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>156</td>
<td>100</td>
</tr>
</tbody>
</table>

Tools used:

(i) “Mental Health Battery”- this is developed by A. K. Singh & Alpana Sengupta.

(ii) A Self made questionnaire have been used in this research study for data....

“Social Media Addiction Scale Student Form”- developed by Researcher.
Description: The questionnaire (Social Media Addiction Scale Student Form) was consisted of 26 items. There was no right or wrong answers and they must choose their own opinion according to their own views. They can put a tick mark on a single option in one item and not to keep any item blank.

This was developed by Researcher by the use of two standardize scale “Internet Addiction Test” by Dr Kimberly Young and "Social Media addiction Scale” by Cengiz Sahin. The content validity of this self made questionnaire was checked by five experts in this field of Education from different colleges and university.

Try Out:
Initially the researcher selects 33 questionnaires to prepare this questionnaire but after the content validity checked by expert, few statements were omitted from this questionnaire and a final form of this questionnaire was ready to use.

Design of the study:

<table>
<thead>
<tr>
<th>Type of Research</th>
<th>Quantitative Descriptive Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Variables (Dependent)-</td>
</tr>
<tr>
<td></td>
<td>- Mental Health</td>
</tr>
<tr>
<td></td>
<td>- Social Media Addiction</td>
</tr>
<tr>
<td></td>
<td>Categorical Variables (Independent)-</td>
</tr>
<tr>
<td></td>
<td>- Locale (Rural &amp; Urban)</td>
</tr>
<tr>
<td>Source of Data</td>
<td>Primary Source</td>
</tr>
<tr>
<td>Sampling Method</td>
<td>Random Sampling</td>
</tr>
<tr>
<td>Data Collection</td>
<td>Through the use of standardize scale and Self made questionnaire</td>
</tr>
<tr>
<td>Procedure</td>
<td></td>
</tr>
<tr>
<td>Data Analysis</td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Descriptive Statistics :</td>
</tr>
<tr>
<td></td>
<td>- Mean, Standard Deviation, Standard Error</td>
</tr>
<tr>
<td></td>
<td>Inferential Statistics :</td>
</tr>
<tr>
<td></td>
<td>- Independent sample t-Test</td>
</tr>
<tr>
<td></td>
<td>- Correlation</td>
</tr>
<tr>
<td>Software Used</td>
<td>MS Excel and IBM SPSS 22.00</td>
</tr>
</tbody>
</table>

STATISTICAL TREATMENT:
In this research the researcher applied two types of statistical analysis of data.

- Descriptive Statistics:
  - Mean, Standard Deviation, Standard Error

- Inferential Statistics:
  - Independent sample t-Test and Correlation

PRESENTATION OF DATA

Table-2: Descriptive statistics of Mental Health_ Total sample

<table>
<thead>
<tr>
<th>Variables (Mental Health)</th>
<th>N</th>
<th>Mean</th>
<th>S.E</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>156</td>
<td>103.69</td>
<td>0.574</td>
<td>104</td>
<td>7.175</td>
<td>-0.003</td>
<td>-0.111</td>
</tr>
</tbody>
</table>
Table no-2 showed that, 156 secondary school students had total mean score of mental health is 103.69, Standard error is 0.574, median is 104, Standard Deviation is 7.175, Skewness is -0.003 and kurtosis is -0.111.

Furthermore, data were graphically presented (Histogram with normal probability) below for visualization of the nature of data.

![Figure-1: Histogram with NPC of Mental Health_ Total sample](image)

![Figure-2: Histogram with NPC of Mental Health_ Rural](image)

![Figure-3: Histogram with NPC of Mental Health_ Urban](image)

Figure no-1, 2 & 3 showed that the data of Mental Health of secondary school students could be considered as normally distributed.

<table>
<thead>
<tr>
<th>Variables (Social Media Addiction)</th>
<th>N</th>
<th>Mean</th>
<th>S.E</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>156</td>
<td>47.26</td>
<td>0.664</td>
<td>46</td>
<td>8.289</td>
<td>0.397</td>
<td>-0.509</td>
</tr>
</tbody>
</table>
Table no-3 showed that, 156 secondary school students had total mean score of social media addiction is 47.26, Standard error is 0.664, median is 46, Standard Deviation is 8.289, Skewness is 0.397 and kurtosis is -0.509.

Furthermore, data were graphically presented (Histogram with normal probability) below for visualization of the nature of data.

![Figure-4](image)

**Figure-4:** Histogram with NPC of Social Media Addiction_ Total sample

![Figure-5](image)

**Figure-5:** Histogram with NPC_Social Media Addiction_ Rural

![Figure-6](image)

**Figure-6:** Histogram with NPC_Social Media Addiction_ Urban

Figure no-4, 5 & 6 showed that the data of Social Media Addiction of secondary school students could be considered as normally distributed.

**IV. RESULT AND DISCUSSION**

Testing of Null Hypothesis Ho1:

<table>
<thead>
<tr>
<th>Major Variable (Mental Health)</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E OF MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>82</td>
<td>106.05</td>
<td>7.313</td>
<td>0.808</td>
</tr>
<tr>
<td>Urban</td>
<td>74</td>
<td>101.07</td>
<td>6.062</td>
<td>0.705</td>
</tr>
</tbody>
</table>

![Figure-7](image)

**Figure-7:** Graphical Presentation (Column Diagram) showing mean value of mental health_ Locale wise
Table-5: Independent sample t-test assuming equal variances of mental health_ Locale wise

<table>
<thead>
<tr>
<th>Mental Health</th>
<th>t-test for equality of means (At 0.05 level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural &amp; Urban</td>
<td>4.60</td>
</tr>
</tbody>
</table>

Interpretation:
The table no-4 showed that the mean scores of rural students (106.05) are more than the mean score of urban students (101.07). But table no-5 was revealed that in case of comparing the mean score of mental health of rural and urban students, the calculated t-value is 4.60 and p value is 0.000 (p less than 0.05). Critical value of “t” at 158 degree of freedom and 0.05 level of significance is 1.98. Hence t was significant at 0.05 level of significance. So, the null hypothesis (H0) was rejected. And it was concluded that the mental health of rural students were significantly differ from urban students.

As the null hypothesis H0 was rejected and significant differences of mental health exist between rural and urban students.

Testing of Null Hypothesis H02:

Table-6: Group statistics of Social Media Addiction_ Locale wise

<table>
<thead>
<tr>
<th>Categorical variable</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E OF MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>82</td>
<td>45.63</td>
<td>8.120</td>
<td>0.897</td>
</tr>
<tr>
<td>Urban</td>
<td>74</td>
<td>49.05</td>
<td>8.156</td>
<td>0.948</td>
</tr>
</tbody>
</table>

Figure-8: Graphical Presentation (Column Diagram) showing mean value of Social Media Addiction _ Locale wise

Table-7: Independent sample t-test assuming equal variances of social media addiction_ Locale wise

<table>
<thead>
<tr>
<th>Social Media Addiction</th>
<th>t-test for equality of means (At 0.05 level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural &amp; Urban</td>
<td>-2.62</td>
</tr>
</tbody>
</table>

Interpretation:
The table no-6 showed that the mean scores of rural students (45.63) are more than the mean score of urban students (49.05). But table no-7 was revealed that in case of comparing the mean score of Social Media Addiction of rural and urban students, the calculated t-value is -2.62 and p value is 0.009 (p less than 0.05). Critical value of “t” at 158 degree of freedom and 0.05 level of significance is 1.98. Hence t was significant at 0.05 level of significance. So, the null hypothesis (H0,2) was rejected. And it was concluded that the Social Media Addiction of rural students were significantly differ from urban students.
As the null hypothesis $H_0^2$ was rejected and significant differences of Social Media Addiction exist between rural and urban students.

Testing of Null Hypothesis $H_0^3$:

In releasing this objective the following null hypotheses was formulated. An attempt was made to determine the relationship between the two major variables that is mental health and social media addiction. For this purpose Pearson’s correlation was computed and significance level of $r$ was verified. The results are presented in a correlation matrix showing the correlation between two major variables.

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>CORRELATION</th>
<th>Mental health</th>
<th>Social media addiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-0.769</td>
</tr>
<tr>
<td>Social media addiction</td>
<td>Pearson Correlation</td>
<td>-0.769</td>
<td>1</td>
</tr>
</tbody>
</table>

It is observed from the table no-8 that the correlation coefficient value ‘$r$’ between mental health and social media addiction was found to be -0.769 Which is high positive and $p$ value is 0.003 ($p$ greater than 0.05), hence $r$ was significant at 0.05 level of significance. Therefore the null hypothesis was rejected and it was concluded that the mental health is related to social media addiction.

As the null hypothesis $H_0^3$ was not rejected. Hence it can be concluded that significant negative relationship exists between mental health and social media addiction.

Interpretation:
The table no-3 showed that mean scores of girls students is more than the mean score of boys students. But table no-4 was revealed that in case of comparing the mean score of mental health of boys and girls students, the calculated $t$-value is 2.98 and $p$ value is 0.003 ($p$ lesser than 0.05). Hence, $t$ was significant at 0.05 level. So, the null hypothesis ($H_0^1$) was rejected. And it was concluded that the mental health of boys students were significantly different from the girls students.

**MAJOR FINDINGS:**
1. There exists a significant difference ($t=4.60$, $p=0.00$) in mental health between rural and urban students.
2. There exists a significant difference ($t=2.62$, $p=0.009$) in social media addiction between rural and urban students.
3. There is a significant negative relationship ($r=-0.769$) between mental health and social media addiction.

**V. CONCLUSION**

It is concluded from the result that there is a significant negative relationship between mental health and social media addiction among secondary school students, meaning highly addicted to social media leads to badly affecting the mental health of students. The correlation coefficient for the relationship of these two variables mental health and social media addiction is -0.769. This result shows that the mental health of school students is negatively related to social media addiction; lowering the addiction towards social media better the mental health of students. It was also found that there exists a difference in mental health and social media addiction with respect to demographic variables like locale.

It was understood through this study that social networks have partial impacts on school students who are psychologically bound to these websites, towards advertisements. The present study offers an insight into the complex connection between social media addiction and the mental health problems of school students. Social media uses directly or indirectly effects on the mental health of the younger generation.

In conclusion, the current research revealed a negative relationship between social media addiction and school students’ mental health. These findings suggest helping school students to gain a better understanding of the adverse effects of social media addiction. Additionally, the information gathered from this study can assist professionals in the medical field. This can be done by recommending that potential causal factors from social media be considered and/or addressed when interacting with patients that have been diagnosed with depression. Furthermore, if the findings from this study are used to acquire further knowledge and to
advance techniques that are implemented within the field, this can potentially lower the rate of depression as well as prevent potential suicides from occurring. Social media usage has dangerous effects for the younger generation because problems related to mental health which gets developed during a young period can act as an epidemic for any individual throughout their life.

REFERENCES


