

## **Impact Of Social Media On Mental Health**

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**Abstract:** *Today, technology has been joined in an undivided form of education. Our classes are also not untouched by its effect. Therefore, concerns are increasingly raised in academic and lay literature about the impact of the internet on student's mental health. However, social media is playing an important role other than the means of communication and it has brought educational activities out of four walls of the classroom. Class activities are now going on every time. Usually, student's use five popular social media sites i.e. Facebook, WhatsApp, YouTube, Twitter, and Instagram. There are many students who do not use a particular social media site. This research paper is an effort to examine the effect of social media on mental health. The sample of this study consists of 220 secondary school students. Mental Health was measured with the help of 'Mental Health Inventory'(MHI) developed by K. S. Misra, whereas social media usage was measured with the help of self-developed social media questionnaire. t-test and ANOVA were used to analyse the data.*

**Keywords:** *Social media; Mental Health; Secondary school; Facebook; WhatsApp; YouTube; Twitter; Instagram*

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### **Introduction:**

Social media is described as "types of electronic communication (as websites for social networking and microblogging) through which consumers develop online communities to share data, thoughts, private messages, and other material (as videos)," according to Merriam-Webster (2014). Jenkins describes social media as a culture of convergence: it translates into the convergence of media, participatory culture, and collective intelligence. In this distinctive mixture of these parameters, social media was created (JENKINS, 2006). Media convergence changed the "connection between current techniques, sectors, markets, genres, and audiences" and could, therefore, be regarded as a culturally changing paradigm. This changed the logic of traditional media operating on and through which news and entertainment processes for users. The evolution of the internet has led to its usage as the best medium of communication. Social media is serving as a tool for communication and connection. Social networking sites provide opportunities for informal and social learning of academic practices

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Page | 13415

in higher education, yet not all the academics are engaged on these platforms. These networking sites are referred to as social media (Boyd and Ellison, 2007). Numerous studies recognize linkages between use of social media and adverse results such as enhanced depression, anxiety, compulsive behaviour, loneliness, and narcissism. Young adults' burgeoning use of social media raises worries about these potential adverse impacts of their use. If the use of social media can be connected to adverse results, scientists need to focus more attention on understanding factors connected with adverse results in mental health and how these results can be assisted.

Literature reviews indicate that young adults work on a fragile precipice: as a population, young adults are at high danger of developing mental health issues as they experience emerging adulthood. These same young adults are social media's most active users, who have a separate link with mental health issues. This precarious condition requires more knowledge: it is merely a jump-off point to know that social media and mental health are connected. Understanding how and why social media can affect the mental health of students is the next move to illuminate the links between young adults, their communities, their health, and the role of social media.

Sedentary behaviours are activities involving sitting or lying down, distinguished by the low energy expenditure of the metabolic equivalent total (MET) (Ainsworth et al., 2000). Sedentary behaviours are conducted at or slightly above the resting metabolic level (1–1,5 METS) and include a variety of operations such as TV viewing, computer use, video games play, and passive leisure (Owen et al., 2000). These sedentary behaviours are pervasive in our culture: American adolescents spend 28 hours a week watching television on average (Nielsen Media Research, 2000). According to Sanchez-Villegas et al. (2008) and Demyttenaere et al. (2004), lowering sedentary habits could be a significant intervention in the therapy and avoidance of diseases of depression and anxiety. This postulation is compatible with studies that link sedentary conduct to an enhanced danger of mental health issues. Now every adolescent is more likely to be a part of the social media community and is fascinated by more numbers of friends and behave in the response of 'like' and 'comments' reflected on their social media activities. Though they are socially connected but individually isolated. Friendship is a crucial component in defending our mental health, according to the Mental Health Foundation. But what if friends are invisible and intangible and having a virtual identity only. Adults with no friends are the worst off psychologically. There are significant

health costs associated with social isolation (Economic & Social Research Council, 2013). Fear of missing out is not new. Throughout history, it has been caused by triggers such as pages of the newspaper society, party images, and annual letters of holiday portraying individuals at their best. But now, instead of getting occasional polite updates, we are getting reminders around the clock, mainly through our chosen device (Wortham, 2011). Thus this research is an effort to investigate the relationship between social media and mental health and its impact on students.

**Objectives:** Objectives of the study are as follows-

1. To find out the relationship between social media usage and mental health.
2. To compare the mental health of social media users and non-users.
3. To compare the mental health of students differing with respect to duration of social media usage.
4. To compare mental health among students differing with respect to time spent on social media.

**Hypotheses:** The following hypotheses were tested-

1. There is no significant relationship between social media usage and mental health.
2. There is no difference in the mental health of social media user and non-user<sup>2</sup>.
3. Students differing with respect to duration of social media usage do not differ in their mental health.
4. Students differing with respect to time spent per day on social media do not differ in their mental health.

**Methodology:** The sample of this study consists of 220 secondary school students of class XI. Mental health was measured with the help of 'Mental health Inventory' (MHI) developed by K. S. Misra, whereas the social media usage was measured with the help of self-developed social media questionnaire. Pearson product-moment correlation, t-test and ANOVA were used to analyze the data.

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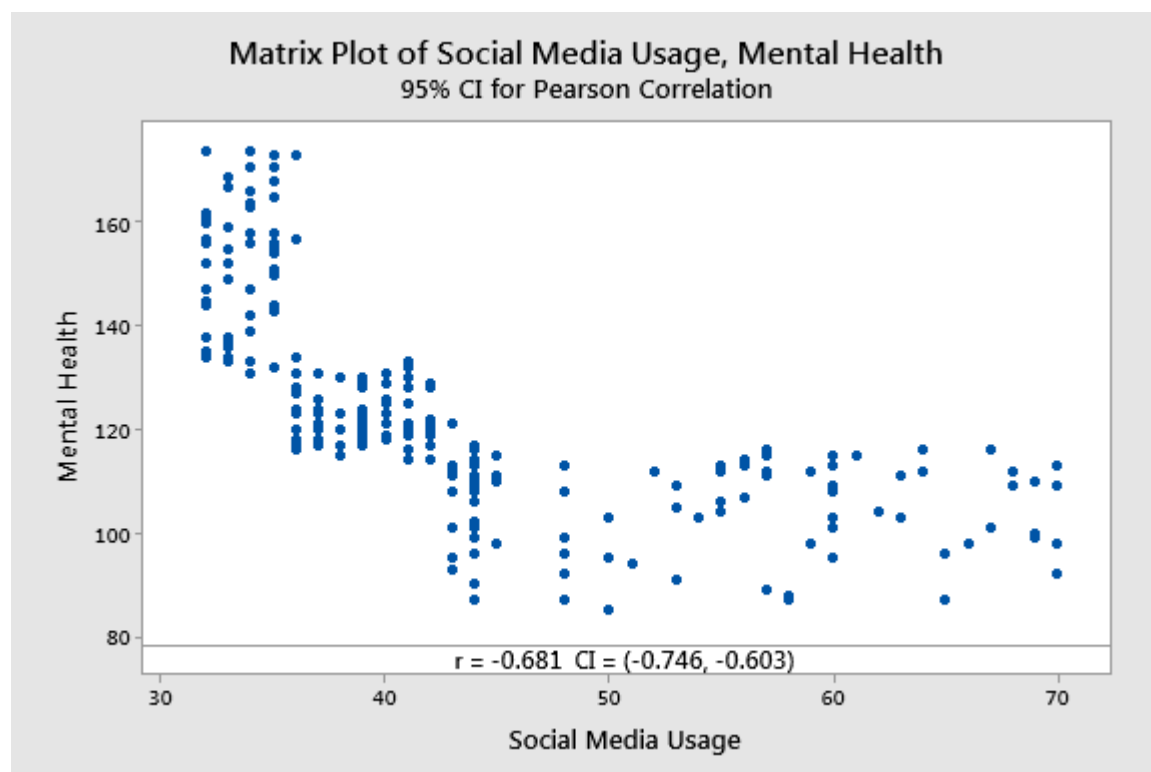
<sup>2</sup>The hypothesis has been tested with reference to popular social media sites mainly 'Facebook', 'WhatsApp', 'Twitter', 'YouTube' and 'Instagram'.

**Results:** Usually, students use five social media sites i.e. Facebook, WhatsApp, youtube, twitter and Instagram. There are many students who do not use a particular social media site at all. Efforts have been made to compare Facebook, WhatsApp, YouTube, Twitter and Instagram users and non-users on mental health. t-ratios were computed to compare the mental health of social media users, and non-users including all those students who do not use any particular social media platform. Product moment Pearson correlation was used to see the nature of the relationship between social media and mental health.

**Table 01:** Correlation between social media usage and mental health

| Variable 1         | Variable 2    | Correlation | P-Value |
|--------------------|---------------|-------------|---------|
| Social Media Usage | Mental Health | -0.681      | 0.000   |

A Pearson product-moment correlation was run to determine the relationship between social media usage and mental health. There is found a strong, negative correlation between social media usage and mental health, which was statistically significant ( $r = -.681, p < .01$ ).



The primary motivation of this research is to compare the mental health of students, who use social media websites and who do not use social media websites in reference to popular SNSs like 'Facebook', 'Whatsapp', 'Twitter', 'Youtube', and 'Instagram'. It was hypothesized that "there is no difference in the mental health of social media user and non-user." This

hypothesis was tested with reference to five popular social networking sites namely 'Facebook', 'Whatsapp', 'Twitter', 'Youtube', and 'Instagram'.

**Table 02:** Mean, SDs, and t-ratios showing difference between Facebook user and non-user students

| SNS      | User     | N   | Mean  | StDev | SE Mean | t    | DF  | P-Value |
|----------|----------|-----|-------|-------|---------|------|-----|---------|
| Facebook | Non User | 79  | 127.2 | 19.2  | 2.2     | 2.48 | 218 | 0.014   |
|          | User     | 141 | 120.1 | 20.7  | 1.7     |      |     |         |

Table 2 shows for social networking site 'Facebook', the difference on mental health between user ( $M = 120.1$ ,  $SD = 20.7$ ) and non-user ( $M = 127.2$ ,  $SD = 19.2$ ) students is found significant ( $t = 2.48$ ,  $p < 0.05$ ). It reveals that Facebook non-user students have reported better mental health in comparison to those students who use Facebook.

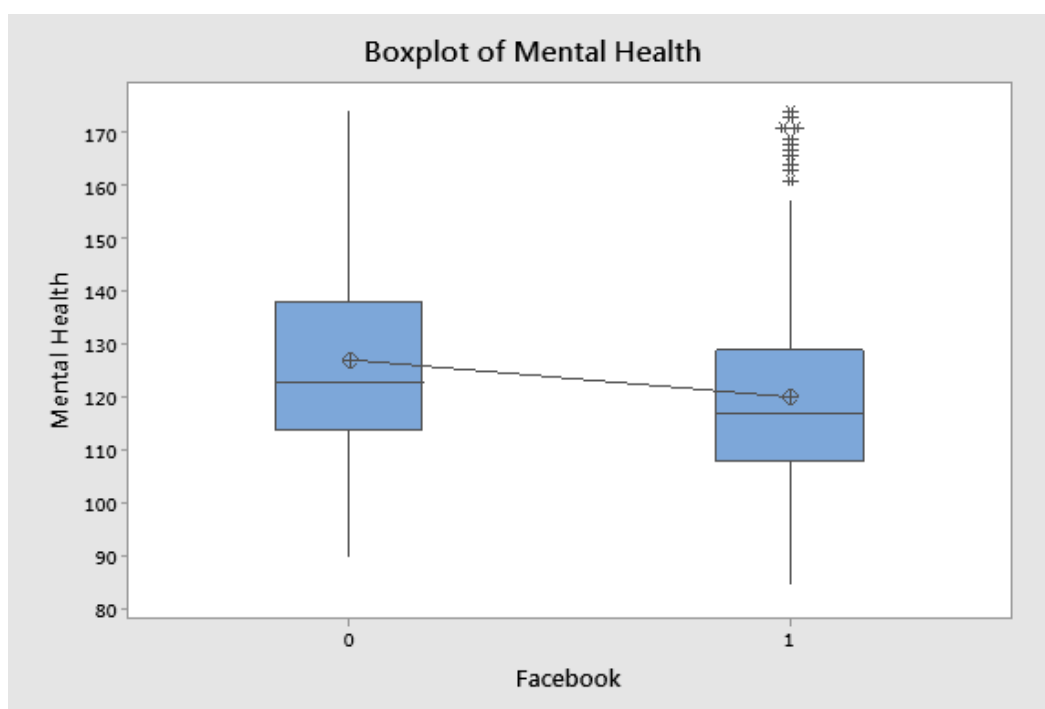


**Table 03:** Mean, SDs, and t-ratios showing difference between WhatsApp user and non-user students

| SNS      | User     | N   | Mean  | StDev | SE Mean | t    | DF  | P-Value |
|----------|----------|-----|-------|-------|---------|------|-----|---------|
| WhatsApp | Non User | 100 | 126.3 | 20.7  | 2.1     | 2.42 | 218 | 0.016   |
|          | User     | 120 | 119.7 | 19.7  | 1.8     |      |     |         |

Table 03 shows for social networking site 'WhatsApp', the difference on mental health between user ( $M = 119.7$ ,  $SD = 19.7$ ) and non-user ( $M = 126.3$ ,  $SD = 20.7$ ) students is found significant ( $t = 2.42$ ,  $p < 0.05$ ). It reveals that WhatsApp user students have reported poor mental health in comparison to those students who do not use WhatsApp.

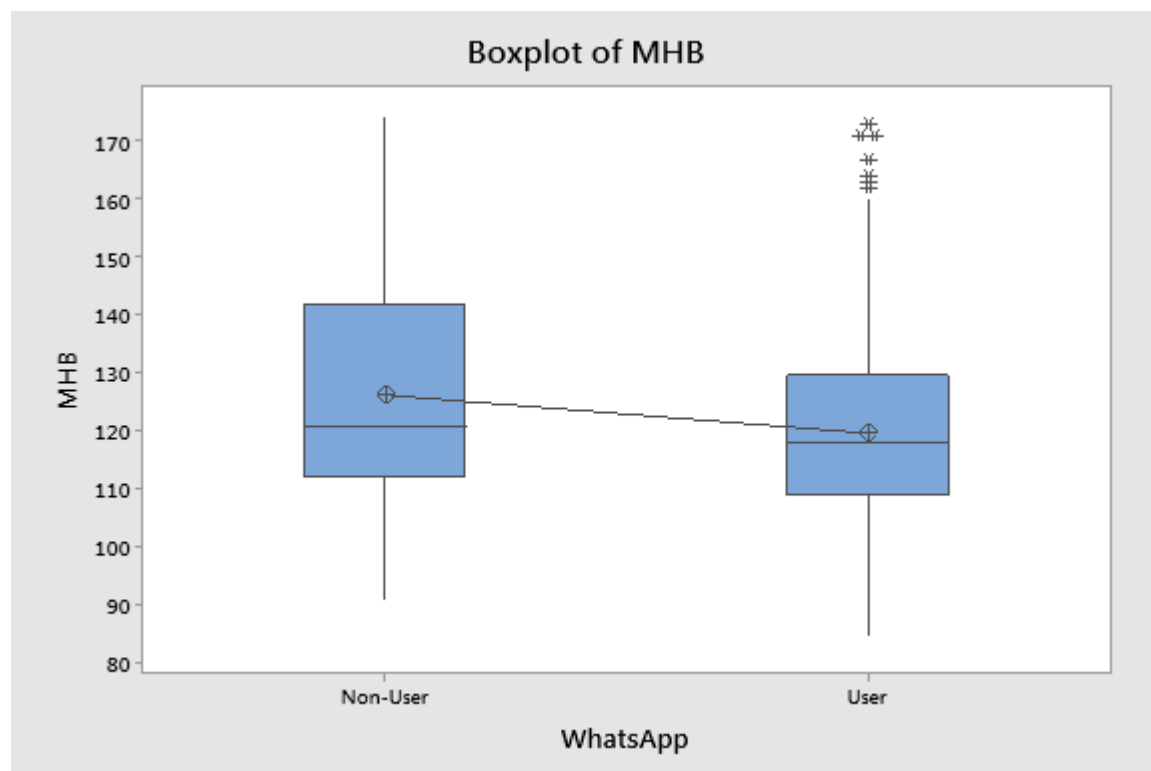


**Table 04:** Mean, SDs, and t-ratios showing difference between  
Twitter user and non-user students

| SNS     | User     | N   | Mean  | StDev | SE Mean | T    | DF  | P-Value |
|---------|----------|-----|-------|-------|---------|------|-----|---------|
| Twitter | Non User | 108 | 124.8 | 21.0  | 2.0     | 1.54 | 218 | 0.126   |
|         | User     | 112 | 120.6 | 19.7  | 1.9     |      |     |         |

Table 04 shows for social networking site 'Twitter', the difference on mental health between user ( $M = 120.6$ ,  $SD = 19.7$ ) and non-user ( $M = 124.8$ ,  $SD = 21.0$ ) students is not found significant ( $t = 1.54$ ,  $p > 0.05$ ). It reveals that Twitter user and non-user students have equal mental health.

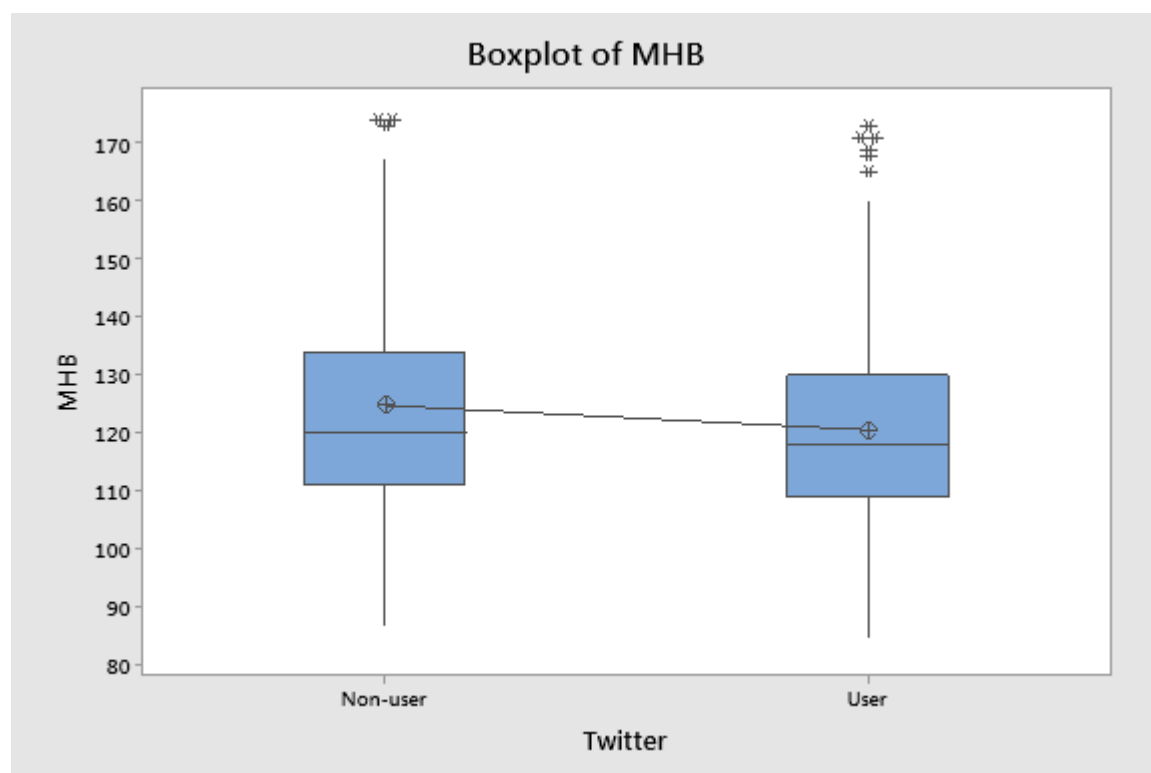


**Table 05:** Mean, SDs, and t-ratios showing difference between  
Instagram user and non-user students

| SNS       | User     | N   | Mean  | StDev | SE Mean | T    | DF  | P-Value |
|-----------|----------|-----|-------|-------|---------|------|-----|---------|
| Instagram | Non User | 110 | 120.0 | 19.7  | 1.9     | 1.95 | 218 | 0.053   |
|           | User     | 110 | 125.3 | 20.9  | 2.0     |      |     |         |

Table 05 shows for social networking site 'Instagram', the difference on mental health between user ( $M = 125.3$ ,  $SD = 20.9$ ) and non-user ( $M = 120.0$ ,  $SD = 19.7$ ) students is not found significant ( $t = 1.95$ ,  $p > 0.05$ ). It reveals that Instagram user and non-user students have no difference in their mental health.

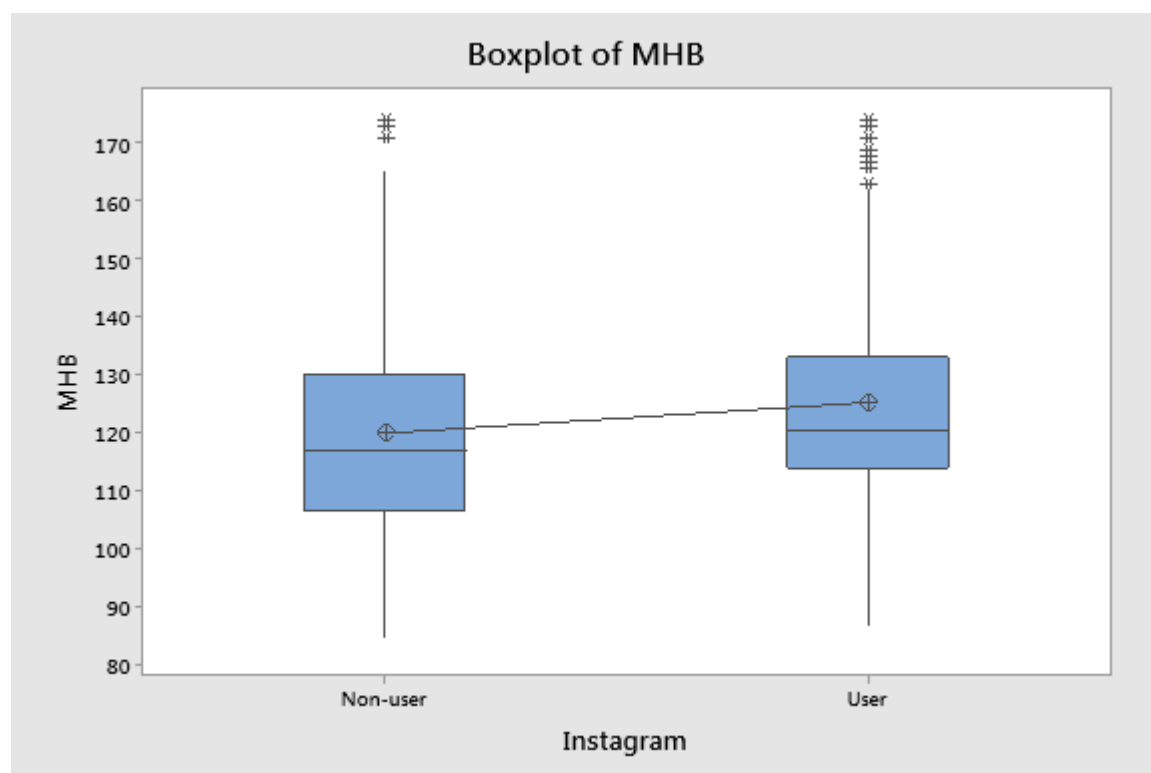


**Table 06:** Mean, SDs, and t-ratios showing difference between  
YouTube user and non-user students

| SNS     | User     | N   | Mean  | StDev | SE Mean | t    | DF  | P-Value |
|---------|----------|-----|-------|-------|---------|------|-----|---------|
| YouTube | Non User | 85  | 121.6 | 20.5  | 2.2     | 0.60 | 218 | 0.548   |
|         | User     | 135 | 123.3 | 20.4  | 1.8     |      |     |         |

Table 06 shows for social networking site ‘YouTube’, the difference on mental health between user ( $M = 123.3$ ,  $SD = 20.4$ ) and non-user ( $M = 121.6$ ,  $SD = 20.5$ ) students is not found significant ( $t = 0.60$ ,  $p > 0.05$ ). It reveals that YouTube user and non-user students have no difference in their mental health.

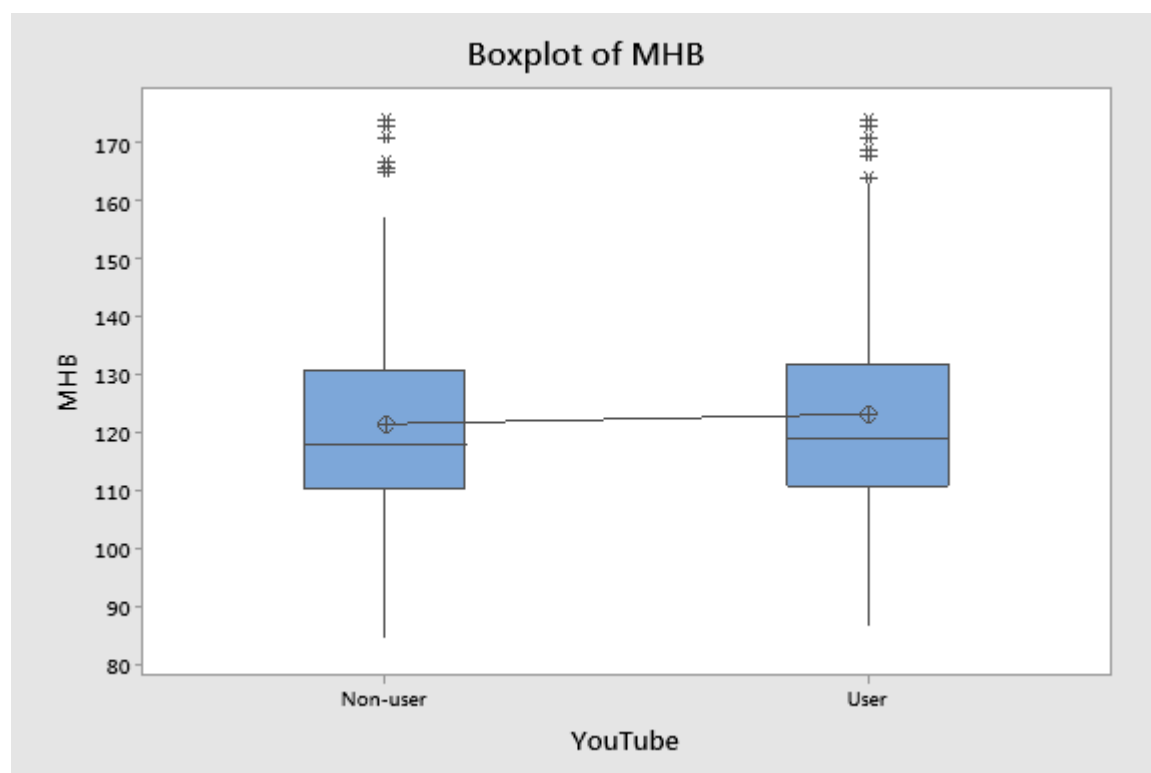


**Table 07:** Summary of results of ANOVA showing differences in mental health with reference to the duration of social media usage

| Source         | Adj. SS | Df  | Adj. MS | F    | Sig.  |
|----------------|---------|-----|---------|------|-------|
| Between Groups | 8906    | 4   | 2226.4  | 5.83 | 0.000 |
| Within Groups  | 82177   | 215 | 382.2   |      |       |
| Total          | 91083   | 219 |         |      |       |

It was hypothesized that “students differing with respect to time duration on social media do not differ in their mental health.” Table 07 shows that the value of F ratio 5.83 is significant at the 0.001 level. So, the null hypothesis stands rejected and it can be inferred that students differing with respect to social media time duration differ from one another on mental health.

**Table 08:** Mean and SDs for the mental health of students differing with regard to time spent per day on social media

| Usage_Year              | N  | Mean   | StDev |
|-------------------------|----|--------|-------|
| 1. Less than six months | 43 | 132.23 | 18.52 |
| 2. 6 to 12 months       | 24 | 129.75 | 19.82 |
| 3. 12 to 24 months      | 66 | 118.71 | 20.07 |
| 4. 24 to 36 months      | 60 | 116.15 | 18.99 |

|                        |    |        |       |
|------------------------|----|--------|-------|
| 5. more than 36 months | 27 | 125.30 | 20.84 |
|------------------------|----|--------|-------|

**Table 09:**Tukey Pairwise Comparisons Grouping Information Using the Tukey Method

| Usage Year             | N  | Mean   | Grouping |   |   |
|------------------------|----|--------|----------|---|---|
| 1 Less than six months | 43 | 132.23 | A        |   |   |
| 26 to 12 months        | 24 | 129.75 | A        | B |   |
| 5more than 36 months   | 27 | 125.30 | A        | B | C |
| 312 to 24 months       | 66 | 118.71 |          | B | C |
| 424 to 36 months       | 60 | 116.15 |          |   | C |

In these results, the table 09 shows that Blend A contains groups 1, 2, and 5, Blend B contains groups 2, 5, and 3, and Blend C contains 5, 3, and 4. Group 5 is in all groups. Differences between means that share a letter are not statistically significant. Table 09 depicts that groups 1, and 4 do not share a letter, which indicates that group 1 has a significantly higher mean than the rest of the groups aka 2, 5, and 3.

**Table 10:**Tukey Simultaneous Tests for Differences of Means

| Difference of Levels | Difference of Means | SE of Difference | 95% CI          | T-Value | Adjusted P-Value |
|----------------------|---------------------|------------------|-----------------|---------|------------------|
| 2 – 1                | 2.48                | 4.98             | (-11.22, 16.18) | 0.50    | 0.987            |
| 3 – 2                | -11.04              | 4.66             | (-23.86, 1.78)  | -2.37   | 0.128            |
| 4 – 2                | -13.60              | 4.72             | (-26.59, -0.61) | -2.88   | 0.035            |
| 5 – 2                | -4.45               | 5.48             | (-19.54, 10.63) | -0.81   | 0.927            |
| 3 – 1                | -13.52              | 3.83             | (-24.06, -2.98) | -3.53   | 0.005            |
| 4 – 1                | -16.08              | 3.91             | (-26.83, -5.34) | -4.12   | 0.001            |
| 5 – 1                | -6.94               | 4.80             | (-20.14, 6.27)  | -1.44   | 0.599            |
| 4 – 3                | -2.56               | 3.49             | (-12.15, 7.03)  | -0.73   | 0.948            |
| 5 – 3                | 6.58                | 4.47             | (-5.70, 18.87)  | 1.47    | 0.580            |
| 5 – 4                | 9.15                | 4.53             | (-3.32, 21.61)  | 2.02    | 0.261            |

*Individual confidence level = 99.35%*

The confidence interval for the difference between the means of group 4 and 2, group 3 and 1, and group 4 and 1 extends from -26.59, -0.61, and -24.06 to -2.98, and -26.83 to -5.34

respectively. These ranges do not include zero, which indicates that the differences are statistically significant. The confidence intervals for the remaining pairs of means all include zero, which indicates that the differences are not statistically significant. The 99.35% individual confidence level indicates that we can be 99.35% confident that each confidence interval contains the true difference for that specific comparison.

**Table 11:** Mean and SDs for the mental health of students differing with regard to time spent per day on social media

| Usage per day            | N  | Mean   | StDev |
|--------------------------|----|--------|-------|
| 1. Less than 30 minutes  | 49 | 121.92 | 17.77 |
| 2. 30 to 60 minutes      | 51 | 124.65 | 24.51 |
| 3. 60 to 120 minutes     | 33 | 121.85 | 20.25 |
| 4. 120 to 180 minutes    | 47 | 119.13 | 19.02 |
| 5. more than 180 minutes | 40 | 125.90 | 19.52 |

**Table 12:** ANOVA analysis of the use of social media on mental health attributed to time spent per day.

| Source         | Sum of Squares | Df  | Adj MS | F    | Sig.  |
|----------------|----------------|-----|--------|------|-------|
| Between Groups | 1256           | 4   | 314.1  | 0.75 | 0.558 |
| Within Groups  | 89826          | 215 | 417.8  |      |       |
| Total          | 91083          | 219 |        |      |       |

It was hypothesized that “students differing with respect to time spent per day on social media for do not differ in their mental health.” ANOVA was used to analyze the data. Table 12 shows that the value of the *F* ratio is .75. It is not significant at the 0.05 level. So, the null hypothesis can be accepted. It means that students differing with respect to time spent per day on social media do not differ from one another on mental health.

## Conclusion

1. Study confirms a strong, negative correlation between social media usage and mental health. It means as social media usage increases; mental health becomes poor.
2. Students who use ‘Facebook’ and ‘WhatsApp’ have reported poor mental health in comparison to those students who do not use these two social media sites. However, users

and non-users of 'Twitter', 'YouTube' and 'Instagram' have shown no difference in their mental health.

3. Students differing with respect to social media time duration differ from one another on mental health. Results revealed that the students who are new social media users or have been using social media 'from six months' have better mental health than students who are using social media 'from six to twelve months', and 'from twelve to twenty-four months'. Students using social media 'from six to twelve months' are better in mental health than the students using social media 'from twelve to twenty-four month'.
4. Students differing with respect to time spent per day on social media do not differ in their mental health. It means time spent on social media in a typical day doesn't affect mental health.

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