# Social Media Addiction and Self-Esteem in relation to Gender of Students

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### Abstract

Youth worldwide are increasingly exposed to social media and its consequences, and Bhutanese children are no exception. Owing to limited studies on the impacts of social media on students in Bhutan, this study investigates self-esteem and social media addiction, considering the gender of the students in the Zilukha Middle Secondary School, Thimphu, Bhutan. Out of 327 students, data were collected from 180 students (90 males and 90 females) using proportionate random sampling. The t-tests results revealed no significant difference in the social media addiction and self-esteem between male and female students. The study also found a significantly negative correlation between social media addiction and self-esteem of students. As social media addiction and self-esteem scores did not significantly differ between male and female students, parents and teachers need to monitor the use of social media by students irrespective of their gender. Similar studies in other parts of the country, particularly representing students in rural areas, are recommended for new social media addiction and self-esteem insights.

*Keywords***:** secondary students, self-esteem, addiction, social media

### Introduction

Bhutan started its planned development in 1961 (Bhonsale, 2020). Since then, there has been rapid development of communication infrastructure and services, including the internet. The introduction of the internet in 1999 (British Broadcasting Corporation, 2002) has led to the emergence of diverse web technologies. Social media is one of the web technologies evolving rapidly. Social media is computer-based technology for sharing ideas, thoughts, and information through virtual networks (Kırcaburun, 2016). Social media can also be understood as smartphones incorporated with the internet into various multimedia functions to access communication platforms (Crawford, 2009). The rapid advancement of social media greatly influences the way people communicate. The number of Bhutanese using social media was 430,000 people as of April 2019, and an additional 40,000 users were recorded between April 2019 and January 2020 (Zangmo, 2020). It is not only in Bhutan, but there is an increase in the

number of Facebook users (79.91% to 87.36%) and Instagram users (0.92% to 1.9%) from 2019 to 2020 globally (Statcounter GlobalStats, 2020).

Social media engages people, especially the younger ones. For instance, teens were found spending about nine hours a day on social media (Perrin, 2018). On a positive note, social media facilitates youth in learning, interacting, and communicating (Malik & Khan, 2015; Kircaburun, 2016; Woods & Scott, 2016). However, all children do not possess the required knowledge, skills, and resources to keep themselves safe in online forums (Dema, 2020). Teens are vulnerable to social media exposure as they constantly try to figure out who they are, who their associates are, and where they belong (Gallagher, 2017). In the process of seeking answers to these questions, increased and unstructured time spent online could expose young people to harmful and sadistic content, as well as increase the risk of cyberbullying, differentiating, and low self-confidence (Malik & Khan, 2015; Kircaburun, 2016; Woods & Scott, 2016; Lecomte et al., 2020; United Nations Children's Fund, 2020). Constant use of social media will also determine how youths view their peers and themselves (Jacobson, 2020). For example, in contrast to rare users, frequent users tend to agree that others are happier, have better lives, and are doing better (Gonzales & Hancock, 2011; Chou & Edge, 2012; Cramer et al., 2016). Therefore, young people's inappropriate use of social media reduces their self-esteem (Dwivedi et al., 2018).

Self-esteem is defined by how people behave and act, by the attitudes towards self, and individual emotion. Self-esteem can be either a positive or a negative evaluation of oneself (Lecomte et al., 2006). Self-esteem can be divided into high self-esteem and low self-esteem. High self-esteem people like themselves and feel good about who they are. However, too high self-esteem reflects egotism – which is also harmful. One will reject criticism and believe that he or she is always right. Self-esteem is said to decline during adolescence due to growing cognitive aptitude and sensitivity to the social evaluation perceived by the adolescents (Farhan & Khan, 2015). People with low self-esteem either have uncertain or mixed emotional state toward themselves. Too low self-esteem often leads to mental health issues, including depression, anxiety, and self-doubt (Naderi et al., 2009; Gallagher, 2017). Self-esteem is linked with how well the norms mandated by the culture are satisfied by individuals that often differ between male and female (Kundu & Rani, 2007). For example, boys are more restrictive than girls in knowing or showing what they feel, reflecting a gender gap in self-expression (Lynch et al., 2001).

Even in Bhutan, students are increasingly exposed to social media, particularly during the COVID-19 pandemic (Drukpa, 2020). School closures led to online classes via technology and digital solutions; thereby, students spend more time on virtual

platforms to learn, entertain, and connect to the outside world. Hence, students are susceptible to experiencing low self-esteem due to unregulated social media usage. However, there is scarce information about the relation between social media use and self-esteem in the Bhutanese context. Therefore, findings from this study are valuable for teachers, parents, and students in understanding students' self-esteem in relation to social media for necessary actions. Therefore, the objectives of the study are:

(1)  to compare social media addiction between male and female students

(2)  to compare self-esteem between male and female students; and

(3) to determine the correlation between students' social media addiction and self-esteem. Accordingly, we proposed four hypotheses as follows:

$H_{01}$: There is no significant difference in social media addiction of male and female students.

$H_{02}$: There is no significant difference in the self-esteem of male and female students.

$H_{03}$: There is no significant relationship between social media addiction and self-esteem of students.

## Methodology

### Study area, sample size, and sampling

The study was conducted in Zilukha Middle Secondary School (ZMSS), Thimphu, Bhutan. ZMSS was initially established in 1983 (known as RBG Coy III Primary School) to cater to the children of the Royal Bodyguard personnel. In 1985, the school was renamed Zilukha Primary School. The school was upgraded to Lower Secondary School in 1998. With the increasing number of students and infrastructure, the school was upgraded to a middle secondary school in 2014 (Thimphu Thromde, 2021). At present, ZMSS has 1117 students (including 580 male and 537 female) and 49 teachers (comprising 12 male and 37 female).

As the current study mainly focused on youths, the target population for the current study was 327 students (from class eight to ten) of ZMSS. Students between class eight to ten were selected because these students are usually between the age ranges of 15 to 24 years, fulfilling the definition of youths (United Nations Population Fund, 2010). Moreover, researchers believed that students of lower classes would face difficulty self-administering the online questions as questions were in English. Thus, we purposefully selected students of class eight to ten as they better comprehend English than students of lower classes. As a result, we expected that responses would be reliable and accurate, surveying students of higher classes who better comprehend the English language. The sample size was determined using Yamane's formula (Yamane, 1967), as shown in Equation 1. The population was 327 students, and the margin of

error used was kept at 5%. Accordingly, the minimum sample size required was 180 students (Equation 1).

$$n = \frac{N}{1 + N(e)^2}$$ (1)

$$n = \frac{327}{1 + 327(0.05)^2}$$

$$n = 180$$

We employed proportionate random sampling to select 180 (90 male and 90 female) from 327 target students. Since this study intends to compare social media addiction and self-esteem between male and female students, proportionate sampling was also employed to male and female students in all classes. A total of nine classes were included in this study as there were three sections each in class eight, nine, and ten (Table 1).

**Table 1**

*Population and sample size*

| Classes | Population | | | Sample | | |
|---------|------|--------|-------|------|--------|-------|
|         | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| 8A | 16 | 24 | 40 | 9 | 13 | 22 |
| 8B | 26 | 13 | 39 | 15 | 7 | 22 |
| 8C | 19 | 20 | 39 | 11 | 10 | 21 |
| 9A | 19 | 18 | 37 | 11 | 9 | 20 |
| 9B | 18 | 19 | 37 | 11 | 10 | 21 |
| 9C | 19 | 17 | 36 | 11 | 9 | 20 |
| 10A | 14 | 19 | 33 | 8 | 10 | 18 |
| 10B | 11 | 22 | 33 | 6 | 12 | 18 |
| 10C | 13 | 20 | 33 | 8 | 10 | 18 |
| Total | 155 | 172 | 327 | 90 | 90 | 180 |

**Data collection procedure**

A cross-sectional survey was commissioned after getting administrative approval from the administration of ZMSS. The questionnaire was self-administered by 180 students through Google Form. Google Form was preferred over other tools due to school closure and the need for social distancing to defend against the spread of the COVID-19 pandemic (Todd, 2020). The study objectives and instructions for giving the information were explained online, both in written and verbal form, to the students. Data collected were used only for the study purpose. We observed the confidentiality of students' information at all stages of the study.

A structured questionnaire was used as the data collection instrument adapted from previous studies. For instance, six items to measure the social media addiction (based on the six core components of salience, mood, modification, tolerance, withdrawal conflict and relapse) was adapted from similar studies conducted in the past (Andreassen et al., 2016; Monacis et al., 2017; Leung et al., 2019). It consists of a five-point Likert scale ranging from 1 (very rarely) to 5 (very often). A higher score indicates a greater risk of developing a social media addiction. The instrument to measure social media addiction was tested on Italian samples and found reliable (Monacis et al., 2017).

Similarly, Rosenberg (1965), Cuhadaroglu (1986), and Raymer (2015) guided the development of instruments to measure self-esteem. Self-esteem was measured using ten items. Rosenberg's items were later adapted to Turkish samples (Cuhadaroglu, 1986). Students rated all ten items on a four-point scale format ranging from 1 (strongly disagree) to 4 (strongly agree). Higher scores on the scale items specify higher levels of self-esteem. Table 2 presents items to measure self-esteem and social media addiction.

**Table 2**

*Variables of the study (n = 180)*

| Item No. | Items | Min | Max | *M* | *SD* |
|---|---|---|---|---|---|
| | **Self-Esteem** | | | | |
| SE1 | On the whole, I am satisfied with myself | 0 | 3 | 2.26 | 0.64 |
| SE2 | At times, I think I am no good at all | 0 | 3 | 1.56 | 0.69 |
| SE3 | I feel that I have a number of good qualities | 1 | 3 | 2.00 | 0.61 |
| SE4 | I am able to do things as well as most other people | 0 | 3 | 2.08 | 0.52 |
| SE5 | I feel I do not have much to be proud of | 0 | 3 | 1.63 | 0.74 |
| SE6 | I certainly feel useless at times | 0 | 3 | 1.58 | 0.75 |
| SE7 | I feel that I am a person of worth, equal to others | 0 | 3 | 2.07 | 0.63 |
| SE8 | I wish that I could have more respect for myself | 0 | 3 | 1.01 | 0.77 |
| SE9 | All in all, I am inclined to feel that I am a failure | 0 | 3 | 1.95 | 0.71 |
| SE10 | I take a positive attitude toward myself | 0 | 3 | 2.29 | 0.60 |
| | **Social Media Addiction** | | | | |
| SA1 | Use a lot of time thinking about or planning using social media | 1 | 5 | 2.73 | 0.91 |
| SA2 | Felt an urge to use social media more and more | 1 | 5 | 2.78 | 0.96 |
| SA3 | Used social media to forget about personal problems | 1 | 5 | 2.56 | 1.11 |
| SA4 | Tried to cut down on the use of social media without success | 1 | 5 | 2.72 | 0.84 |
| SA5 | Got troubled by being prohibited from social media use | 1 | 5 | 2.21 | 1.01 |
| SA6 | Used social media too much to negatively impact on your studies | 1 | 5 | 2.68 | 1.21 |

**Analytical approach**

Data were analyzed using the Statistical Package for Social Science (SPSS) version 25. We performed descriptive statistics, including mean, standard deviation, frequency, and percentage. As shown in the analytical framework (Figure 1), two sample independent $t$-tests were also employed to compare (1) the use of social media of male and female students ($H_{01}$) and (2) the self-esteem of male and female students ($H_{02}$). Pearson's correlation was conducted to determine the relationship between students' social media addiction and self-esteem ($H_{03}$).
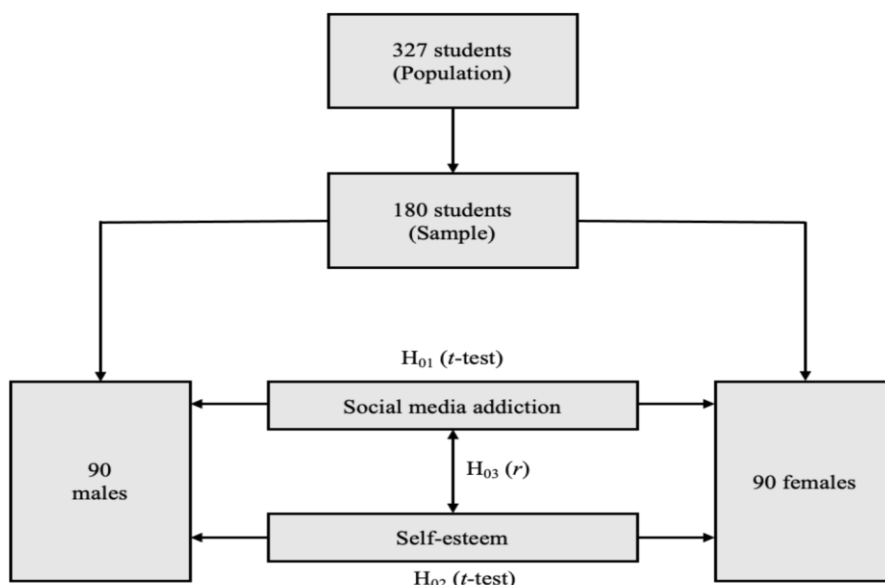


**Figure I.** Analytical framework

**Results**

The results for this study are presented based on the order of the research questions.

**Profile of students**

We surveyed a total of 180 students comprising 50% male and 50% female. The average age of students was 15.80 years ($SD = 1.39$), ranging from 13 to 20 years. The respondents' ages ranged from 13-20 years, with the mean age being 15.8 years. While comparing the ages of male students ($M = 15.89$, $SD = 1.52$) and female students ($M = 15.71$, $SD = 1.25$), there was no significant difference, $t(178) = 0.859$, $p = .390$. The average social media addiction was 18.43 ($SD = 3.68$) and self-esteem was 15.67 ($SD = 3.72$). According to researchers (Andreassen, 2016; Banyai et al., 2016), scoring more than three for four items out of 6 on the social media addiction scale is an addiction indicator. The average social media addiction of 18.43 surely reveals an

addiction sign. Self-esteem scores between 15 and 25 indicate a normal range of self-esteem (Rosenberg, 1965). Descriptive statistics on the profile of respondents are presented in Figure 2 for visual reference.
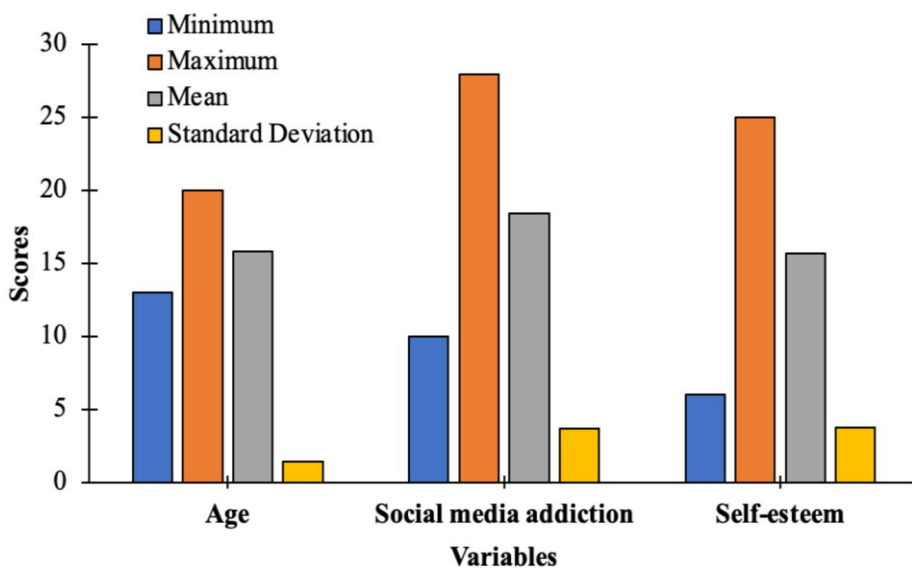


**Figure 2:** *Profile of students*

### Social media addiction between male and female students

The first objective of this study is to compare the social media addiction score of male and female students. We applied a two-sample independent *t*-test to determine the difference in social media addiction between male and female students. Table 3 represents means, standard deviations, and t-test result. The mean of social media addiction for female students was higher by 0.70 compared to male students. However, there was no significant difference of social media addiction between male students (M = 15.32, *SD* = 3.50) and female students (*M* = 16.02, *SD* = 3.91), where $t(178) = -1.265$, $p = .208$ at 5% significance level. Therefore, we fail to reject the null hypothesis ($H_{01}$). Thus, social media addiction is the same for both male and female students.

**Table 3:** *Social media addiction between male and female students*

| Categories | M | SD | df | t | P |
|---|---|---|---|---|---|
| Male | 15.32 | 3.50 | 178 | -1.265 | .208 |
| Female | 16.02 | 3.91 | | | |

**Self-esteem between male and female students**

The second objective of this study aims to compare the self-esteem of male and female students. The two-sample independent $t$-test was performed to find out the difference in self-esteem of male and female students. Means, standard deviations, and t-test results are illustrated in Table 4. The self-esteem score of female students was higher by 0.21 than male students. The mean of average self-esteem for male students is 18.32, which is less than 18.53 for female students. However, the average self-esteem score of male students ($M$ = 18.21, $SD$ = 3.68) did not significantly differ from female students ($M$ = 18.53, $SD$ = 3.70), where $t(178)$ = -.384, $p$ = 720. Therefore, we fail to reject the null hypothesis ($H_{02}$). Accordingly, we conclude that students' self-esteem is the same for both the gender.

**Table 4:** *Self-esteem between male and female students*

| Categories | *M* | SD | *df* | *t* | *p* |
|---|---|---|---|---|---|
| Male | 18.32 | 3.68 | 178 | -0.384 | .720 |
| Female | 18.53 | 3.70 | | | |

*Correlation between social media addiction and self-esteem*

The third objective aims to determine the relationship between social media addiction and self-esteem of students. For this purpose, Pearson's correlation was performed to determine the association between students' social media addiction and self-esteem as depicted in Table 5. There was a significant correlation between these two variables, where $r$ = - 0.346, $p$ = .000. The direction of the relationship was negative. This finding suggests that when social media addiction increases, the self-esteem of students decreases and vice versa. Thus, we reject the null hypothesis ($H_{03}$).

**Table 5:** *Pearson's correlation between social media addiction and self-esteem of students*

| Pearson's correlation | Self-esteem | Social media addiction |
|---|---|---|
| Self-esteem | 1 | -0.346* |
| Social media addiction | | 1 |

**. Correlation is significant at the .01 level (2-tailed)

**Discussion**

Inappropriate social media usage by young people is reported to impact their life, including self-esteem, negatively. Moreover, studies often noted differences in social media addiction and self-esteem between male and female. Bhutanese students are increasingly exposed to social media (Drukpa, 2020). With schools closed and teachers taking classes online due to the COVID-19 pandemic, mobile phones have become a basic necessity. The two mobile phone outlets (i.e., Tashi cell and B-mobile) in Bhutan

received an increase in customers, and as per the shopkeepers, about 20 phones were sold every week when online education started (Palden, 2020; Yuden, 2020), this shows increase in the number of youth possessing mobile devices. Currently, Bhutan has limited academic papers on social media usage and impacts despite increasing social media users. Thus, this study attempted to explore social media usage and its impacts, including addiction and self-esteem in relation to the gender of the students.

The results showed no significant difference in social media addiction between male and female students (Table 3). Online behaviour represents many aspects of various demographic factors, including gender (Sap et al., 2014). For instance, photos and videos in social media influence more women than men in deciding the travel destination (Karatsoli & Nathanail, 2020). McGregor et al. (2016) also reported that male candidates (10.6%) engaged in personalizing communication more than their female counterparts (5.1%). Perrin (2015) also found that most of the social media users are women (68%) and men (62%). The non-significant result in this study is in contrast to Booker, Kelly & Sacker (2018), whose study showed that females are more prone to social media addiction than males. The non-significant result in this study could be due to the COVID-19 mandatory social distancing that led to the closure of all social gatherings such as schools, entertainment, and sports centres which directed the use of social media as a means of education, entertainment, and connection with friends, relatives, and the outside world irrespective of gender.

The results showed no significant difference in self-esteem between male and female students (Table 4). In contrast, much of previous studies on gender and self-esteem have confirmed that the self-esteem of the adolescent female is usually lower than adolescent male (Simmons & Rosenberg, 1975; Aidman & Carroll, 2003; Cairney & McMullin, 2004; Farhan & khan, 2015; Rao & Tamta, 2017). Having said that, Berry et al. (2018); Lynch et al. (2001), Malik & Khan (2015), Kavakli & Unal (2021) supported the non-significant result by reporting that boys and girls had comparatively similar and healthy levels of self-esteem. The non-significant result in this study suggests that both male and female students at middle secondary school experience the same level of self-esteem. The non-significant result in this study could be due to no overt gender discrimination in Bhutan. Females enjoy as much social freedom and equality as males. Not only the constitution but also electoral law guarantees equal rights to males and females.

Another important finding of this study was a significant negative correlation between students' social media addiction and self-esteem (Table 5). Although some studies showed positive relationships (Gonzales & Hancock, 2011; Purnama et al., 2021; Meier & Gray, 2014), many other studies supported the finding of this study

(Chua & Chang, 2016: Cramer et al., 2016; Gallagher, 2017; Kavakli & Unal, 2021; Kose & Dogan, 2019; Malik & Khan, 2015; Radovic et al., 2017). Probable reasons for students' social media declining self-esteem could be due to overexposure, communication overload, and social comparison. Additionally, frequent social media users are more likely to compare themselves for the factors such as self-enhancement, self-improvement, self-evaluation, and self-destruction (Cramer et al., 2016). Also, the frequent social media users are often bothered by not receiving as many likes as they thought on their posts and have to wait to check after posting on social media (Gallagher, 2017; Radovic et al., 2017). Wang et al. (2015) also reported that an individual taking selfie frequently and wanting to be popular are likely to be affected in life satisfaction and self-esteem. Similarly, Chua & Chang (2016) asserted that edited images uploaded on the social media platform portrayed feelings of low self-esteem, insecurity, and quest for peer recognition. Spending one hour on Facebook a day is found to decrease an individual's self-esteem by 5.57 (Jan et al., 2017).

**Conclusion**

Data from 180 students (90 male and 90 female) were analyzed to (1) compare social media addiction between male and female students, (2) compare self-esteem between male and female students, and (3) determine the correlation between students' social media addiction and self-esteem. The results showed no significant difference in social media addiction and self-esteem between male and female students. However, there was a negative and moderate correlation between social media addiction and self-esteem of students. The current findings have important implications for teachers, parents, and students in reducing students' social media addiction and improving their self-esteem. Studying online (online classes) increases students' exposure to various gadgets and social media platforms, particularly during the COVID-19 pandemic. For instance, social networking sites such as WeChat, Telegram, WhatsApp, and Facebook have become necessary information-sharing tools. As social media addiction has a negative correlation with self-esteem, stakeholders, including parents and teachers, should strictly monitor students on social media platforms to avoid addictions. No difference in social media addiction and self-esteem between male and female students suggests stakeholders must equally monitor students irrespective of their gender.

However, the findings are limited to data reported by middle secondary students from Thimphu – the capital city of Bhutan. As such, a similar study in remote areas where exposure to gadgets and social media platforms might give very different results.

Therefore, a similar study can be conducted in other parts of the country and various educational institutes for new insights.

## Limitations

The findings of this study are limited only to data reported by middle secondary students from Thimphu – the capital city of Bhutan. This study's findings not necessarily represent the views of other youth in Bhutan especially the ones residing in rural places. Though the standard, valid and reliable questionnaire was used, the integrity of the students cannot be measured as it was self-administered through Google Form due to the pandemic. Self-esteem is a broad concept that differ from person to person and the factors causing it also differs, so an accurate measure of self-esteem is difficult.

## Recommendations

As social media addiction and self-esteem scores did not significantly differ between male and female students, parents and teachers are asked to monitor the use of social media by students irrespective of their gender. They should observe the effects of social media sites on their children and limit the time spend on such social networking sites. In addition, teachers can infuse awareness programs or activities pertaining to emotional area of development to build self-esteem and self-confidence of the students. Further, campaigns must be held to raise awareness in people regarding the negative repercussions of social media.

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