

# The Gender Differences in the Relationships Between Self-Esteem and Life Satisfaction with Social Media Addiction Among University Students

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## Abstract

Recent evidence indicates an elevated risk of social media addiction among university students. This research was designed to enhance the understanding of social media addiction among university students by investigating the relationships between self-esteem, life satisfaction, and social media addiction, with the possibility of gender differences in the relationships. 288 university students (103 males, 185 females) from the Faculty of Educational Studies at Universiti Putra Malaysia (UPM) done the Social Media Addiction, Rosenberg Self-Esteem (RSES), and Life Satisfaction Scales. Results showed that self-esteem and life satisfaction accounted for 64% of the total variance in social media addiction. Life satisfaction was a significant factor in increasing the possibility of social media addiction. On the contrary, there were no significant differences in life satisfaction and self-esteem, the latter exhibited no association with social media addiction. Furthermore, males were much more addicted to social media than females. An understanding on gender differences may be helpful for clinicians to expand suitable therapy by taking into account these findings, meanwhile, the statistically significant differences between the variables may contribute to predict student addiction levels in social media. The results of this study are obtained from Malaysian university students and possible generalisation to other populations should be verified by further studies.

**Keywords:** life satisfaction, self-esteem, social media addiction, university students

## 1. Introduction

Social media addiction is increasingly recognised as a serious, worldwide public health concern. The overuse of social media has caused a critical issue for the new generation in recent years, especially among university students. An increase in the amount of time and energy spent on social media might lead to an addiction. The growing utilisation of portable electronic devices, for instance smartphones and tablets, has also become one of the reasons why the prevalence of social media addiction is increasing (Yu et al., 2016). Apart from spending a long time on social media, individuals who are addicted to social media will experience disabilities and negative effects in certain areas of life, for instance, leisure, socialising, financial, cognitive as well as physical spheres (Odaç & Çelik, 2017). Excessive use of social media causes behavioural addiction, detachment from real life, decline in academic achievement, cyberbullying, and a host of other social and mental abnormalities (Prabhakararao, 2016). Likewise, intrapsychic conflicts are common among those who are engaged in social media, e.g. modification, and interpersonal conflicts, e.g. relationship problems (Griffiths & Kuss, 2017).

The usage of social media had a notable increase globally due to the COVID-19 lockdown period in 2020, involving a total of 3.96 billion users and approximately 51% of the world's population (Hootsuite & We Are Social, 2020). Looking back to Malaysia, social media users increased 4.1% from the previous year, which approximately reached 26 million users (Hootsuite & We Are Social, 2020). A research done by Gao et al. (2020) during the pandemic of COVID-19 in Wuhan, China illustrated that mental health problems was highly associated with exposure to social media. The more frequently the users engage in social media, the higher the prevalence of detected mental health problems. Despite the fact that the consequences of social media have been widely reported, some researchers have argued that social media use is not predictive of mental health issues (Berryman et al., 2018).

According to Malaysian Communications and Multimedia Commission (MCMC) in 2020, there were 88.7%

Internet users reported in Malaysia and most of them were 20 – 25 years old, occupying 34.1% of the total, which became the highest number of users as compared to other age groups. The age range of university students is between 19 and 23 years old which belongs to the 20s group. They are labelled as heavy social media users. Overuse of social media can be more troublesome for youth because their intellect and interpersonal skills are still emerging (Hilliard, 2020). The average daily social media consumption time is 2 hours and 58 minutes for Malaysians, with an average of 8 hours and 5 minutes daily consumption time on the Internet (Hootsuite & We Are Social, 2019). The activities in social media may allow individuals to induce mood modification or bring them a pleasant feel (Griffiths & Kuss, 2017). They will normally increase the amount of time and effort in social media in order to achieve and keep the pleasant feel. The inability to monitor the excess usage of social media has contributed to a range of negative effects, for example decline in academic performance, inappropriate interaction between students and teachers online, and cyberbullying (Lau, 2017).

The relation between social media addiction and self-esteem has been widely researched (Bozoglan et al., 2013; Andreassen et al., 2017; Hawi & Samaha, 2017; Ahmad et al., 2018; Hou et al., 2019). A cross-sectional study done by Andreassen et al. (2017) with a large number of samples in Norway demonstrated that lower self-esteem is associated with higher scores of addiction. The findings indicated that people used social media in order to attain higher self-esteem or escape from lower self-esteem. According to Bozoglan et al. (2013), lower self-esteem was found to affect the addiction, which increased the screen time in social media. In line with the studies above, Hawi and Samaha (2017) concluded that the addiction was reported to be negatively correlated with self-esteem and the latter became the mediator of the connection between addiction to social media and life satisfaction. Self-esteem and social media addiction have an unambiguous relationship. The study carried by Hou et al. (2019) among 232 students found that the connection between social media addiction and psychological well-being was mediated by self-esteem. Results in that study indicated that lower self-esteem was partly responsible for the negative relationship between the two stated variables.

The findings in previous studies indicated the negative association between self-esteem and social media. Other researchers, however, who looked at the relationship between these two variables among 240 private university students in Klang Valley, Malaysia, found a positive association among them (Ahmad et al., 2018). These intriguing findings highlight the relevance of social media in boosting self-esteem, with social media assisting students in doing so. Students with a higher level of self-esteem indicate to consume more time on social media because they are frequently exposed to pictures of others and feel satisfied with themselves.

Life satisfaction is also closely related to the addiction on social media among the youth. A number of authors have reported analyses of trends in life satisfaction and social media addiction that demonstrated different findings. A descriptive study performed by Sahin (2017) reported that university students with less satisfaction towards life were more easily addicted to social media. In the same vein, Longstreet and Brooks (2017) in their research noted that the two variables were negatively correlated. The findings showed that the more students were addicted to social media, the less happy they were with life.

On the other hand, a research done by Bozoglan et al. (2013) among 384 university students argued that there was no connection between addiction and life satisfaction. Life satisfaction only affected the addiction via loneliness and self-esteem. Similarly, Hawi and Samaha (2017) found no direct connection between social media and life satisfaction, as the latter served as a structure for accessing the overall quality of life. However, Zhan et al. (2016) pointed out a different view, which concluded the positive association among social media and life satisfaction. The study claimed that social media provided social benefits to students, which would make them have a positive evaluation of their life. The contradicting results between these studies had yielded the interest for the current researcher to study the connection among life satisfaction and social media addiction; and this research gap should be filled.

Until date, numerous studies conducted to demonstrate the prevalence of social addiction among Malaysian university students and the data indicated that almost half of the students who are addicted to social media spend more than two hours on social media for various reasons (Moghavvemi et al., 2017). Zaremohzzabieh et al., (2014) revealed 3 themes of social media addiction which is: compulsion to check social media, high frequency usage and using social media to avoid offline responsibility. Many past research, however, have not prompted linear associations between self-esteem, life satisfaction, and social media addiction among Malaysian university students, and have also ignored the possibility of gender differences in the associations. Therefore, the precise mechanism that accounts for self-esteem and life satisfaction with social media addiction remains to be delineated. Consequently, this study is designed to examine the possible effect of gender differences in the links between self-esteem and life satisfaction in connection to the addictive level in social media among Malaysian university students. The objectives of this study were stated as follow:

- i. To investigate the gender differences in the relationship between life satisfaction and social media addiction level in university students.
- ii. To investigate the gender differences in the relationship between self-esteem and social media addiction level in university students.
- iii. To investigate the gender differences in the relationship between life satisfaction and self-esteem in university students.
- iv. To investigate the statistically significant relationship between life satisfaction, self-esteem, gender, and social media addiction level.

## **2. Method**

### *2.1 Research Design*

This study was carried in a correlational way. A questionnaire was used to obtain quantifiable data. This study was best suited with the intent of correlational research to illustrate the connection in university students with life satisfaction and self-esteem towards social media addiction.

### *2.2 Population and Sample*

The sample size was decided based on Krejcie and Morgan's (1970) table. In the Faculty of Educational Studies, Universiti Putra Malaysia (UPM), 291 students out of 1,291 undergraduate students were selected randomly to answer the questionnaires.

### *2.3 Instrumentations*

Demographic data of the respondents were collected in the designed demographic form. Using the already developed tool via Google Form, data for life satisfaction, self-esteem, and level of social media addiction of the respondents were gathered. The respondent's demographic information consisted of gender and age. The remaining parts were made up of the Satisfaction with Life Scale (SwLS), Rosenberg Self-Esteem Scale (RSES), and Social Media Addiction Scale-Student Form (SMAS-SF). The estimated time to complete this survey was approximately 5-8 minutes.

Life satisfaction of respondents were measured using SwLS, which was developed by Diener et al. in 1985. The purpose of SwLS is to justify the level of satisfaction with the life of individuals. It contained five items rated on a 7-point Likert-type scale. The respondents were required to rate from the range of 1 (which presented strongly disagree) to 7 (which presented strongly agree).

The self-esteem of the respondents was evaluated by the RSES scale, which was developed by Rosenberg in 1965. RSES contains five positively and negatively worded items. Data would be coded on a 5-point Likert-type scale ranging from 1 (which represented strongly disagree) to 5 (which represented strongly agree). Ten items were examined in the scale. RSES allows respondents to deal with general feelings about themselves. The highest score that can be obtained is 30, whereby higher scores indicate higher self-esteem.

SMAS-SF is a newly developed assessment scale from the Social Media Addiction Scale (SMAS) by Sahin in 2018. It is designed specifically for university students to assess the extent of social media addiction. SMAS-SF consists of 29 items. Tolerance, communication, problems, and information were tested in virtual context based on the assessment. The assessment included a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). All items in the assessment were positive and 145 is the highest point that respondents could obtain. Positive points are connected with the addiction.

### *2.4 Pilot Test*

In this study, a Cronbach's alpha coefficient test was conducted three months prior to the data collection. As a rule of thumb in the research field, the typical number of samples to collect data from is accumulated to 30. A Google form is created and distributed to 30 respondents to answer. 30 undergraduate students of the Faculty of Educational Studies, UPM filled in the online questionnaire. The reliability of each scale is being tested with Cronbach alpha coefficients to see whether they are reliable. According to the rule of thumb for interpreting alpha coefficients for Likert scale questions, it was reported that the three variables had good internal consistency. All of the values were above .7 with life satisfaction (.78), self-esteem (.81), and social media addiction (.96). The scale used for each variable was consistent and reliable based on the result obtained.

### *2.5 Data Analysis*

After the data in Google Form were obtained, the needed data were conveyed to the Statistical Package for Social Science (SPSS) version 22, which is widely used by quantitative research researchers. The correlation

coefficient produced in decimals after the variables were correlated was somewhere between 0.00 and +1.00 or -1.00. The coefficient was then checked. An independent sample T-test was performed to assess if there was a significant difference between males and females in terms of life satisfaction, self-esteem, and social media addiction. Meanwhile, multiple regression was employed to examine how well life satisfaction and gender could predict social media addiction in university students.

**3. Results**

Table 1 shows the variables that were measured in the study. The variables included gender and age of the respondents, median of self-esteem, and median of social media addiction. Descriptive statistics and inferential statistics are discussed and tabulated in the following table.

The number of female respondents surpassed male respondents, with 185 (64%) females and 103 (36%) males. 14% of the respondents were aged 19, 7% of the respondents were aged 20, 55% of the respondents were aged 21, 6% of respondents were aged 22, and 19% respondents were aged 23. The number of respondents aged 21 was accounted for as the highest of the total.

Table 1. Descriptive statistics of the respondents

Variable	n	%
Gender		
Male	103	36
Female	185	64
Age		
19	40	14
20	19	7
21	160	55
22	18	6
23	54	19

Table 2 details the mean scores and standard deviation for life satisfaction, self-esteem, and social media addiction. The mean of life satisfaction was 24, which indicated the respondents were slightly satisfied with their life. The self-esteem of respondents achieved a median of 17, which elicited the average level of self-esteem for respondents was slightly above average. Meanwhile, the median of social media addiction was 82, which elicited that the average level of social media addiction for respondents was slightly above average.

Table 2. Mean scores and standard deviation for life satisfaction, self-esteem, and social media addiction.

Variable	Median
1. LS	24
2. SE	17
3. SMA	82

Note. LS=Life satisfaction, SE=Self-esteem, SMA=Social media addiction

The correlation between life satisfaction, self-esteem, and social media addiction is demonstrated in Table 3. The life satisfaction and addiction obtained a correlation coefficient (r = of .121\*, p <.005\*) with a significance of .039. The association between these two variables was weak. The coefficient of correlation between self-esteem and addiction was -.013 with a magnitude of .826. This result revealed that the relationship was not significant. The association between the two independent variables indicated a close relationship, with a correlation coefficient (r =of .505\*\*, p < 0.01\*), significant at .000.

Table 3. Correlations between three major variables

	1	2
1. SMA		
2. LS	.121*	
3. SE	-.013	.505**

The analysis of gender differences on self-esteem and social media addiction in Table 4 presented no significant

difference in the respondents' gender on self-esteem,  $t(203) = 1.26, p = .210$  and life satisfaction,  $t(289) = 1.36, p = .174$ . On the contrary, male respondents ( $M = 87.28, SD = 21.86$ ) were significantly different from females ( $M = 77.80, SD = 21.13$ ) on social media addiction,  $t(289) = 3.64, p = .000$ .

Table 4. (t) test results for the differences between the mean score of the genders on the variables

Variable	Gender	M	SD	t	df	Significance
1.LS	Males	23.47	5.40	1.26	203.30	.210
	Females	23.67	4.90			
2.SE	Males	17.17	3.85	1.36	289	.174
	Females	16.52	3.91			
3. SMA	Males	87.28	21.86	3.64	289	.000**
	Females	77.80	21.13			

Note. \* $p < 0.05$ , \*\* $p < 0.01$ .

Table 5 presents the combination of variables that predicted social media addiction from life satisfaction, self-esteem, and gender, which was found to be statistically significant,  $F = 6.54, p < .001$ . Life satisfaction, self-esteem, and gender significantly predicted social media addiction. The adjusted  $R^2$  value was .054. This indicated that 5.4% of the variance ( $R^2 = .064; F(3, 287) = 6.54, p < .001$ ) in social media addiction was explained by the model. According to Cohen (1988), this is a small effect size. Life satisfaction and gender statistically predicted social media addiction.

Table 5. Model summary for life satisfaction, self-esteem, and genders predicting social media addiction

Variable	B	SEB	$\beta$
LS	.689	.283	.161*
SE	-.621	.371	-.111
Genders	-9.33	2.60	-.206*
Constant	81.77	6.82	

Note. \* $p < .05$

#### 4. Discussion

According to the tabulated research findings, the life satisfaction and social media addiction in university students had a substantially positive relationship. Surprisingly, the results indicated there was a positive relationship between the level of life satisfaction and addiction to social media. The positive relationship between life satisfaction and social media addiction marks a contradicting result with the previous studies. Most of the previous findings observed there was a negative relationship or no relationship between the two stated variables (Buda et al., 2020; Sahin, 2017; Longstreet & Brooks, 2017; Hawi & Samaha, 2017; Bozoglan et al., 2013)

A possible explanation for this might be that the respondents in this study achieved life satisfaction through social media. University students had been restricted from returning to university since 2020 due to covid pandemic and the implementation of Movement Control Order (MCO) in Malaysia. These results may be attributed to the fact that the students rely on social media to study, interact with lecturers and friends, maintain relationships with each other, as well as expand their social environment. These online activities contributed to their sense of identity and belongings in life. Their satisfaction with life increased when the social support they perceived through online was more than offline (Zhan et al., 2016). Also, this condition would happen when the students garbled their real life with social media (Aksoy, 2018).

Furthermore, the results indicated the connection between self-esteem and addiction to social media did not exist. This finding was unexpected because most of the previous research specified a negative correlation between these two variables (Ahmad et al., 2018; Hawi & Samaha, 2017; Andreassen et al., 2017; Bozoglan et al., 2013) This result has not previously been described in the literature. The researcher attributed this result could be explained by both the level of addiction and self-esteem of the respondents in this study is moderate. The result

could be different if the research was implemented for students who have been identified as addicted to social media. The current research might produce the first empirical finding that self-esteem has no association with addiction to social media, but there are other variables such as fear of missing out, sense of belongings, loneliness or eagerness to get attention from others.

According to the tabulated research findings, males did not differ significantly from females on life satisfaction,  $p = .210$  and self-esteem,  $p = .174$ . The obtained result was similar to several previous studies that revealed there were no gender differences in both variables (Joshanloo, 2018; Chang et al., 2017; Jovanović et al., 2017). While a few studies presented that gender differences did take place (Cabras & Mondo, 2017; Al-Attayah & Nasser, 2016). Gender differences might be affected by several factors, for instance background, race, ethnicity and socio-economic status of the respondents. On the other hand, the average scores of social media addiction on males and females revealed significant differences, in which the average score of female respondents,  $m = 77.80$ , was significantly lower than the score for males,  $m = 87.28$ . Similar findings were also discovered in previous research, which reported gender played an important role in developing social media addiction (Andreassen et al., 2017; Salarvand et al., 2018; Azizi et al., 2019; Simsek et al., 2019; Steinsbekk et al., 2020). Most of the findings illustrated that females tended to have higher scores in addiction than males (Andreassen et al., 2017; Simsek et al., 2019; Steinsbekk et al., 2020). On the contrary, some studies that included Iranian university students found males scored a higher level of social media addiction as compared to females (Azizi et al., 2019; Salarvand et al., 2018). The findings in this study might lead to a cross-cultural discussion that Malaysian students are similar to Iranian students, in which the prevalence of social media addiction level in males is higher than in females.

Based on the charted research findings, the combination of variables to predict social media addiction from life satisfaction, self-esteem, and gender was statistically significant, which indicated that 5.4% of the variance in social media addiction was explained by the model. Most of the current studies only predicted one variable from another and no single existing study adequately predicted the variable model. Although the findings on the present model indicated a small effect size, it is acceptable in psychological research as well as the effect under investigation can make itself be felt over time (Abelson, 1985). Future research

There has been a limited amount of research in Malaysia on social media addiction and life satisfaction towards students. These results supported the first milestones of Malaysia's toward identifying, monitoring, and preventing social media addiction. The present results are significant in at least two major respects, namely the relationship between the two variables, and the predictor variables for social media addiction. Identifying the predictor variables and reasons buried under the addiction is a must before the research can proceed to the practical aspect, for instance, counselling services and prevention programmes, which will be discussed in the practical implication. As knowledge expands, the roots and effects of social media, as well as the possibilities to control its occurrence and prevent its negative consequences, will be better understood by both counsellors and individuals.

At the same time, the practical implication for this research is the possibility of the relevant prevention programmes and interventions to be discovered. University counsellors may be able to design and implement the relevant prevention programmes, for instance, promote a way to self-check and how to reduce the usage of social media. These prevention programmes allow the university students to be aware of their surfing time on social media and seek help if necessary. Apart from that, the results in this study reflected the level of social media addiction among university students is above average and the addiction will continue to become a massive issue. The development of young adults will affect the global circumferences. It is important to yield the attention of the society to younger social media users before the condition becomes irretrievable. The relevance of gender differences in social media addiction level from this study raises the awareness to pay sustained attention to male students as they achieved a higher addiction level than female students. This point of view is in line with Hawi and Samaha (2017), who expected the problem of social media only to aggravate and has to be investigated from time to time. For this purpose, the present study gives valuable information regarding university students and their pursuit of social media.

Several limitations are also identified. This study is a cross-sectional study in correlational design, which provides the prevailing condition in the targeted population. The cause-effect relationship does not exist. For an in-depth study, a longitudinal study involving the same group of people is needed to detect the developments and changes in life satisfaction, self-esteem, and social media addiction. The unexpected outcome of zero correlation between self-esteem and social media addiction limits the significance of this study. It is recommended to expand the size of the target population to more universities, as well as other faculties, to obtain clearer, representative, and significant findings. Furthermore, future research might need to include the screen time and the type of social media used by the respondents. It would be interesting to correlate virtual tolerance, virtual

communication, virtual problem, and virtual information factors as specified by Sahin (2017). The data obtained from the relationship might help researchers to determine and have a clearer understanding on the directionality of the correlations.

## 5. Conclusion

With the continued growth of technology, social media addiction among university students will only continue to aggravate. This study's results indicated a weak positive relationship in life satisfaction and addiction and no existence of relationship between self-esteem and addiction. This may bring a new prospect of addiction in the context of Malaysian university students. The relationship between these variables may still need to be investigated in future research. Technology is growing rapidly, and the association between the variables may be weak in this study. Nevertheless, it might change from time to time. A weak relationship might become mild, and a mild relationship could become strong. The age of social media users might become younger and younger as they can easily access social media. Studies concerning life satisfaction, self-esteem, and social media addiction, in other words, still deserve attention. Future research is needed to account for the varying age groups and other potential self- and other-oriented variables such as level of narcissism, cultural effect, and self-efficacy.

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