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The Influence of Social Media on University Students' Self-Esteem

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ABSTRACT

This study assessed the influence of social media on self-esteem among university students. Social media factors that affected the self-esteem of university students were investigated based on daily time spent on social media. Data were collected from an online questionnaire. Self-esteem was measured using the established Rosenberg Self-Esteem Scale. The quota sampling technique was deployed to select 381 undergraduate university students for this study. Descriptive analysis was performed to analyze the respondents' demographic details, including gender, race, and age. Correlation and regression analyses were executed using SPSS software to test the correlations between social media factors and self-esteem among undergraduate students. As a result, self-esteem among the students was not significantly influenced by the amount of time they spent on social media. Therefore, more studies are in need to further investigate the main factors that influence the self-esteem of university students.

Keywords: Self-esteem, social media, social networking sites, university students, youth

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INTRODUCTION

Social media are platforms and applications (apps) that prioritize networking, community-based interaction, participation, content sharing, and collaboration activities. Social media refer to internet-related programs that help people create and share content based on the philosophy and technologies of Web 2.0. There is a broad range of purposes for one to use

social media, including sharing, learning, interacting, and marketing. One may also use social media to exchange knowledge and thoughts in several ways, such as publishing one's ideas in prose with photographs or through videos and voice recordings via various channels, as well as connecting the audience to fascinating posts, images, and videos.

In the early 21st century, the rise and proliferation of social networking sites (SNSs) were witnessed across the globe. Online media consumption accounted for 33% of daily internet activities, whereby an average user was reported to spend 2 hours and 15 minutes a day on SNSs for communication purposes (Global Web Index, 2017). In July 2020, the use of web-based media extended dramatically to the point that it connected around 51% of the total population (WeAreSocial, 2020). Facebook, Instagram, Twitter, and LinkedIn are instances of active social networking platforms. Facebook recorded over 1.09 billion daily active users in March 2016, while Instagram had over 400 million weekly active users and 80 million users sharing images daily up to 3.5 billion views in 2016. Meanwhile, Twitter had 310 million monthly active users in 2016, whereas LinkedIn registered over 433 million users in the same year. Since the development of these various social media platforms, SNSs have become an integral part of people's lives, especially among the youth. Many teenagers use web-based media to build links to collaborate with others across the globe, exchange and learn knowledge, grow more grounded identities, and enhance their public activities. However, individual trust and self-development seemed to deteriorate as a result of higher use of long-term interpersonal contact locales (Jan et al., 2017). Self-esteem turned moderate among social media users, especially Instagram users, while self-presentation was adversely affected due to the fear of missing out factor among the users (Jan et al., 2017).

Social comparison not only can lead to jealousy, but it can also lead to motivation (Meier & Schafer, 2018) that boosts one's self-esteem. A study by Al-Ghafri and Al-Badi (2016) revealed that all social media users possessed high self-esteem. Meanwhile, Burnasheva and Suh (2020) found positive associations between social media usage and self-image congruity, which further served as a mediator between social media use among millennials and conspicuous online consumption. Furthermore, for 20 to 30-year-old youth with higher faith in guided intercession studies, the pathway between mental self-portrait congruity and apparent online usage appeared to be more prevalent (Burnasheva & Suh, 2020).

The significance of social media has grown over the past decade, and its influence has had a long-lasting impact on individuals. Social network platforms, such as Facebook and Instagram, have facilitated promoting and selling of products and services within the business segment. However, some people suffer from low self-esteem due to certain associations established on the SNSs. Social media allow users to make social

associations that may trigger psychological discomfort, thus affecting one's level of self-esteem (Chen & Lee, 2013). Increased use of SNSs has resulted in people experiencing lower self-esteem and self-growth, leading to social anxiety, depression, and even suicidal thoughts (Woods & Scott, 2016). Most studies on the relationship between trust and the use of SNSs have shown that people with less confidence want to use more web-based media stages to boost their mental self-portrait and confidence. People with poor self-esteem, life satisfaction, and a few offline connections compensate by using SNSs to acquire more friends and visibility (Barker, 2009; Mehdizadeh, 2010). Several researchers have displayed a favorable association between Instagram use and narcissism, whereby the time spent and the number of posted selfies on Instagram were higher among narcissists (Andreassen et al., 2017; Moon et al., 2016; Sheldon & Bryant, 2016).

The effect of social media on one's self-esteem has been investigated using several statistical methods. For instance, Analysis of Variances (ANOVA) was employed by Al-Ghafri and Al-Badi (2016) to assess the self-esteem level of each social media user category, resulting in an insignificant relationship. Meanwhile, Bergagna and Tartaglia (2018) used *t*-tests and reported insignificant differences in social media usage with self-esteem in light of gender. Finally, correlation analysis was deployed by Köse and Doğan (2019) to determine social media addiction among university students in Turkey.

This present study assessed the influence of social media on self-esteem among university students in Malaysia using the statistical method. The next section elaborates on the methods applied in this study and followed by the section that presents the results and discussion. Finally, this paper ends with the study conclusion and suggestions for future work.

METHODOLOGY

This research work identified the relationship between social media and self-esteem among undergraduate students in Malaysia. The four phases deployed in this study were problem identification, data collection, data analysis, results, and discussion. Figure 1 illustrates the four phases process, followed by a description of each step.

Phase 1: Problem Identification

This study determined the effect of social media use on the self-esteem of undergraduate students in Malaysia based on the time they spent using social media. The problem identification for this study was determined from questionnaire surveys, a literature review (including journals, articles, & websites), and observation.

Phase 2: Data Collection

This study involved undergraduate students from a public university located in Malaysia. The sample size was determined from the population of three subgroups represented by a college in each subgroup. The selected university recorded 23,907 undergraduate students. Hence, the sample size was

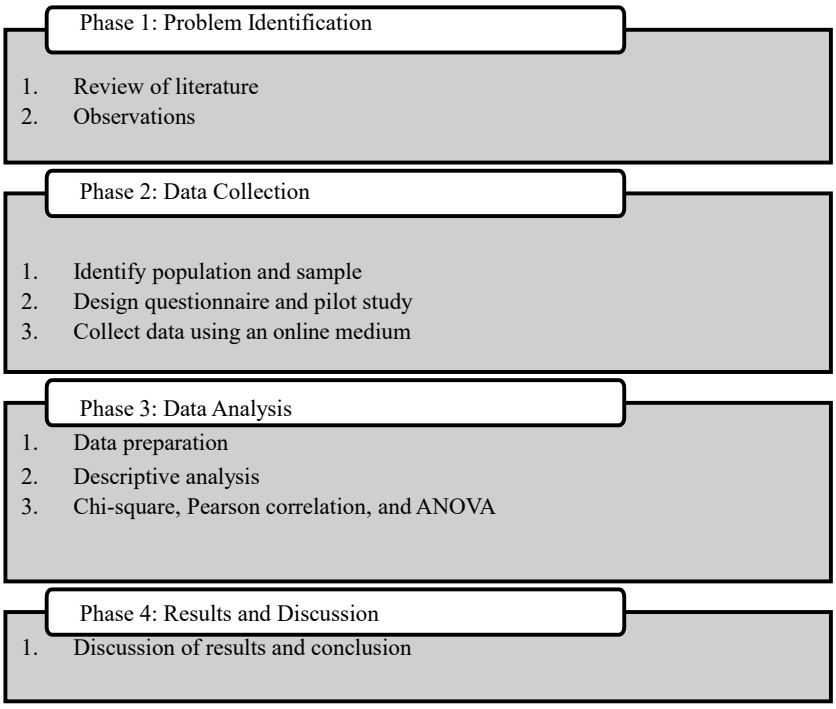

Figure 1. Phases of research activities

381 respondents (95% confidence level), whereby 127 respondents were selected from each of the three colleges. The quota sampling method was employed as the sampling technique. A questionnaire survey was distributed to the respondents. This questionnaire was composed of three sections, as follows:

Section A – Demographic Details

This section has multiple-choice items. The respondents were required to select only one answer for the following demographic details: gender, age, race, college, and current semester.

Section B – Social Media

In this section, several probing questions were embedded to determine the relationship between social media usage based on a seven-point Likert scale (Strongly Agree to Strongly Disagree). Some of the questions included are as follows: 'do they often think about social media,' 'how long are they using social media,' and 'do they feel associated with others when they use social media.' In addition, the respondents were allowed to choose more than one answer for certain questions, such as 'which social media platforms they are using' and 'what is the purpose of using those social media platforms.'

Section C – Self-Esteem

In this section, the respondents were asked about the extent to which they agree (or otherwise) with ten statements revolving

around their feelings about themselves on a four-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree). Some items are: 'I feel that I have a number of good qualities' and 'Overall, I am satisfied with myself.' The average scale of the ten items was analyzed. These self-esteem items were adopted from the Rosenberg Self-Esteem Scale (Rosenberg, 2015).

After designing the questionnaire, a pilot study was conducted to ensure that the developed questionnaire was indeed suitable for real data collection. This questionnaire was distributed via online platforms because it is a reasonably rapid and cost-effective technique during the Coronavirus Disease 2019 (Covid-19) pandemic. All students studied from home and practiced remote learning. Data were gathered from Google Forms distributed via SNSs, such as WhatsApp, Telegram, and Facebook.

Phase 3: Data Analysis

Initially, the data cleaning process was conducted to ensure that the data were ready for analysis. Next, descriptive analysis (frequency & percentage) was performed to analyze the respondents' background. Finally, statistical analyses using chi-square statistics, Pearson correlation, and ANOVA were executed to achieve the main objective outlined in this study.

Phase 4: Results and Discussion

The results retrieved from Phase 3 are discussed and interpreted accordingly in the next section to meet the main objective of this study.

RESULTS AND DISCUSSION

Demographic Details of the Respondents

The respondents' demographics included college, gender, race, age, and semester. Out of the 381 respondents, 127 of them represented each college in the university. In total, 332 (87.1%) of the respondents were female students, while 49 (12.9%) were male students. The ethnicity of the respondents is presented in Table 1, where 283 (74.3%) were Malay students, 56 (14.7%) were Chinese students, and 28 (7.3%) were Indian students. The remaining 14 (3.7%) students were from Bidayuh, Jawa, Kadazan, and Dusun.

Table 1

Frequency and percentage of respondents based on ethnic

	Frequency		Percentage	Cumulative Percentage
Race	Malay	283	74.3	74.3
	Chinese	56	14.7	89.0
	Indian	28	7.3	96.3
	Others	14	3.7	100.0
	Total	381	100.0	

As shown in Table 2, most respondents (48.3%) were 21–22 years old, while 39.9% of the total respondents were 23–24 years old (the second-highest age range). Most undergraduate students pursuing their degrees fell within these two age categories.

Table 2

Frequency and percentage of respondents based on age

	Frequency		Percentage	Cumulative Percentage
Age	19–20	19	5.0	5.0
	21–22	184	48.3	53.3
	23–24	152	39.9	93.2
	25 and above	26	6.8	100.0
	Total	381	100.0	

The study semester of the respondents is presented in Figure 2. More than half of them (n = 218, 57.2%) were in their fifth and sixth semesters. The least respondents (7.3%) were in their seventh semester.

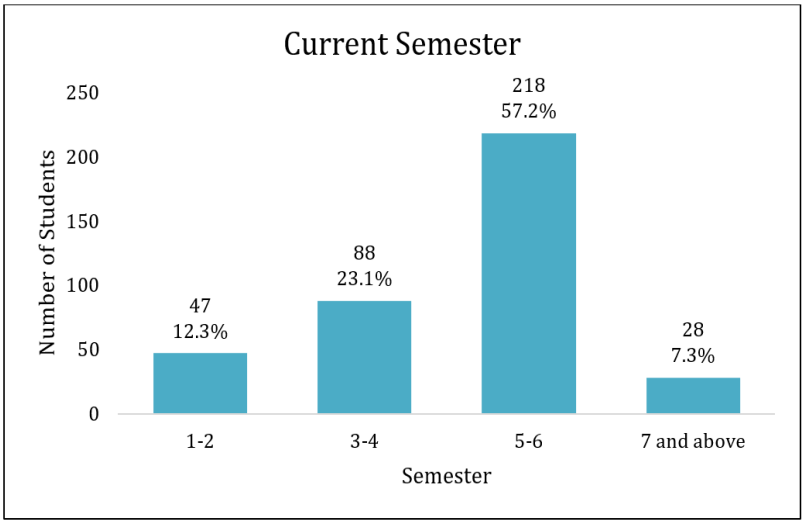

Figure 2. Frequency and percentage of respondents based on the current semester

Discussion of Findings

The primary objective of this study is to determine the influence of social media use on the self-esteem of university students. This objective was achieved by looking into the time spent by the respondents using social media and the value of their self-esteem. Social media refer to the websites

and apps that emphasize communication, community-based input, engagement, content sharing, and collaboration. Among the various forms of social media are a forum, microblogging, social networking, social bookmarking, social curating, and wikis. Most social media platforms offer similar functions, such as messaging, sharing, posting pictures, and updating stories. From time to time, more upgraded versions of the apps are launched. Therefore, app developers compete to be the most famous or trending app. Based on this survey, 360 and 359 respondents used Instagram and WhatsApp as the top apps daily. Figure 3 portrays the social media platforms used by the respondents for communication purposes.

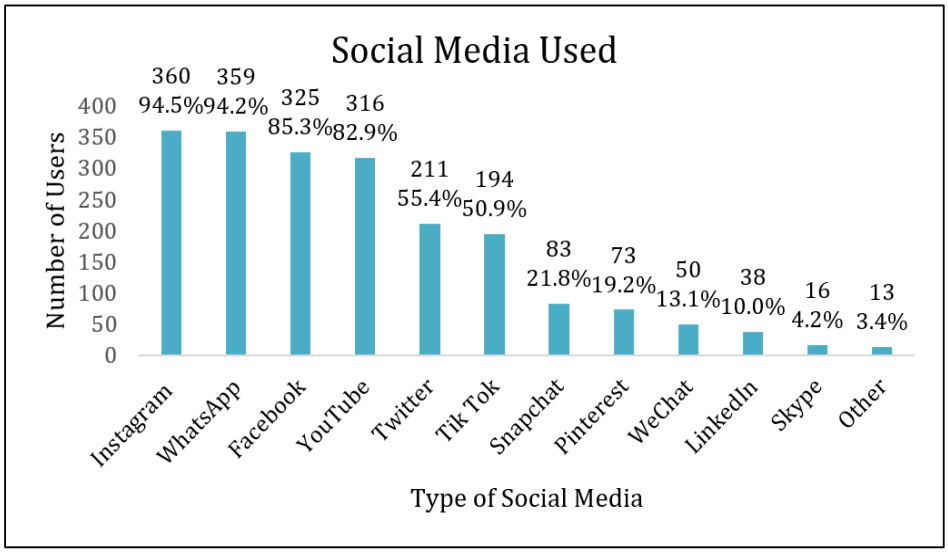

Figure 3. Use of social media platforms by the respondents

The respondents spent several hours daily on social media for multiple reasons. First, the frequency of social media usage served as an indicator of the respondents' self-esteem. Table 3 shows that 122 respondents (32.0%) spent 5–6 hours daily on social media, followed by 3–4 hours spent on social media by 108 respondents (28.3%). Next, only three respondents (0.8%) spent less than 1 hour daily on social media, and 62 respondents (16.3%) spent more than 8 hours or one-third of the total time in a day on social media. The findings signified that most respondents (60.3%) spent 3–6 hours daily on social media.

Next, the identified levels of self-esteem were divided into three categories: high, average, and low levels of self-esteem. Table 4 shows that only 4.2% of respondents had high self-esteem, with the majority recording average self-esteem (71.7%) and the remaining 24.1% exhibiting low self-esteem. The frequency value of 273 confirmed that most respondents had an average level of self-esteem with a percentage of 71.7%.

Table 3

Frequency of time spent on social media

	Frequency		Percentage
Time spent	Less than 1 hour	3	0.8
	1–2 hours	44	11.5
	3–4 hours	108	28.3
	5–6 hours	122	32.0
	7 – 8 hours	42	11.0
	More than 8 hours	62	16.3
	Total	381	100.0

Table 4

Levels of self-esteem

	Frequency		Percentage
Valid	High self-esteem	16	4.2
	Average self-esteem	273	71.7
	Low self-esteem	92	24.1
	Total	381	100.0

Further analysis was conducted to determine the relationships among the variables using chi-square statistics (x^2). Notably, an insignificant correlation was noted between ethnicity and time spent on social media ($x^2 = 21.0559$; $p = 0.1351$), whereas ethnicity and level of self-esteem displayed a significant correlation ($x^2 = 20.1509$; $p = 0.0026$). Meanwhile, the relationships of age with time spent on social media ($x^2 = 10.4843$; $p = 0.7882$) and level of self-esteem ($x^2 = 4.4642$; 6141) had been insignificant. The outcomes showed that time spent on social media had a link with neither ethnicity nor age of the students. However, the level of self-esteem was dictated by the students' ethnicity (see Table 5).

Table 5

Level of self-esteem

	High	Average	Low	Total
Malay	9	207	67	283
Chinese	0	40	16	56
Indian	5	17	6	28
Others	2	9	3	14
Total	16	273	92	381

The relationship between self-esteem and time spent on social media among the respondents was determined via the Pearson correlation test using continuous data. In Table 6, the Pearson correlation test revealed a weak but positive relationship between the two variables at 0.029. It indicated that more time spent on social media led to higher self-esteem. The significance value presented in Table 6 exceeded 0.05, depicting an insignificant correlation between social media usage and self-esteem.

Table 6

Correlation analysis between time spent on social media and self-esteem

Correlations			
		Time spent on social media	Self-esteem
Time spent on social media	Pearson Correlation	1	0.029
	Sig. (2-tailed)		0.575
	N	381	381
Self-esteem	Pearson Correlation	0.029	1
	Sig. (2-tailed)	0.575	
	N	381	381

After testing the correlation between the two variables, linear regression analysis was performed to predict the value of the dependent variable (self-esteem) with the help of the predictor variable (time spent on social media). The outcomes are tabulated in Tables 7 to 10. The value of $R^2 = 0.001$ denotes simple correlation (see Table 7). The R^2 values listed in Table 7 reflect the total variation in self-esteem explained by the time spent on social media, which was very low in this case at 0.1%.

Table 7

Total variation, R

Model Summary				
Model	R	*R* Square	Adjusted	Std. Error of the Estimate
1	0.029[a]	0.001	-0.002	0.495

a. Predictors: (Constant) Time spent on social media

Table 8
ANOVA between self-esteem and time spent on social media

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	0.077	1	0.077	0.315	0.575[b]
	Residual	92.763	379	0.245		
	Total	92.840	380			

a. Dependent Variable: Self-esteem
b. Predictors: (Constant) Time spent on social media

The ANOVA (see Table 8) displays the performance of the regression equation if it fits the data. In Table 8, the significant value exceeded 0.05. It means that the regression model was neither statistically significant nor a good predictor of the dependent variable, which in this case, signifies the self-esteem of the respondents.

Table 9
Coefficient

Model	Unstandardized Coefficients	Standardized Coefficients		T	Sig.
	B	Std. Error	Beta		
(Constant)	2.155	0.083		26.001	0.000
Time spent on social media	0.011	0.020	0.029	0.561	0.575

a. Dependent Variable: Self-esteem

The coefficients listed in Table 9 facilitated making predictions of the dependent variable. It was executed using the regression equation. The regression equation consists of beta values and the value of the independent variable, time spent on social media, and self-esteem. The regression equation is expressed as follows:

Self-esteem = 2.155 + 0.011 (time spent on social media) [1]

One's self-esteem can be predicted based on social media usage, as given in Equation [1]. An hour spent on Facebook daily resulted in a 0.011 increment in one's self-esteem score.

The study outcomes showed no substantial link between individual self-esteem and time spent using social media. However, the correlation value between these variables, which displayed a weak but positive relationship, signified that time spent on social media positively influenced

students' self-esteem. Similarly, Valkenburg et al. (2021) reported that most youths experienced no or very small effect of social media usage on their self-esteem. Instead, the users motivated themselves by using social media for various causes to boost their self-esteem (Al-Ghafri et al., 2016). Turning to this study, most respondents scored average self-esteem, denoting the insignificant effect of social media usage on their self-esteem. It suggests the presence of other reasons behind their score, which could be explored in future work. The next section concludes this study and lists several recommendations for future endeavors.

CONCLUSION AND FUTURE WORK

Social media have undeniably, turned into a crucial application, particularly among the youth. The growing popularity of social media, which tends to increase the emotional burden, such as anxiety, highlights the importance of improving one's emotional well-being. As such, this study assessed the effect of social media use on one's self-esteem. The findings revealed that social media did not adversely affect university students in terms of self-esteem. Instead, the correlation was entirely mediated by social comparison and self-esteem. Furthermore, this study indicated that the level of self-esteem was only correlated with the ethnicity of the students. Since self-esteem varies from one individual to another, other key factors that boost self-esteem among youth should be explored. Future research endeavors should concentrate on the processes behind the effects of social media use on emotional well-being. Such a study may facilitate health educators and campaigners to devise more effective programs for the youth segment in promoting emotional health in this digital era.

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