

Loneliness in the Digital Age: Unveiling the Facebook Usage and Parental Attachment on University Students

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Abstract

The COVID-19 pandemic and its subsequent measures have had a significant impact on the experience of loneliness among university students. The transition from face-to-face to online communication, followed by a return to face-to-face encounters, disrupted the established social connections and support systems that are crucial for students' well-being, posing a significant risk to their mental health, including the development of depression, anxiety, and low self-esteem. This study aims to examine the relationship between Facebook usage, parental attachment, and loneliness among public university students in Perak. Employing a correlational research design, the study uses a quantitative approach through a self-administered online questionnaire. A total of 400 participants from public universities in Perak were recruited using a simple random sampling technique. Multiple regression analysis was employed to analyse the collected data, exploring the relationships between the variables of interest. The findings of this study revealed a significant relationship between Facebook usage, parental attachment, and loneliness among public university students in Perak. The results suggest that both Facebook usage and parental attachment play a role in shaping students' experience of loneliness. The independent variables collectively accounted for 11% of the variance on loneliness among public university students in Perak. These findings provide important insights into the factors influencing loneliness among university students, particularly in the context of the COVID-19 pandemic. The study highlights the need for targeted interventions and support systems to address loneliness and promote students' mental well-being.

Keywords: *Loneliness, Facebook usage, Parental attachment, University students, Mental health*

BACKGROUND OF THE STUDY

Loneliness is the state of perceiving oneself to be alone with no companionship because of mental or emotional discomfort. Loneliness is a complex and usually unpleasant emotional response to social and emotional isolation, which typically includes anxious feelings about a lack of connection or communication with other beings, both in the present and extending into the future (Chris, 2018). Loneliness is a mental distress that can be caused by several factors such as low self-esteem, experiencing bereavement, relationship break-up, serious illness, physical isolation such as moving away from family or change of workplace. Previous studies of Gardiner et al., (2018) stated critical transitions from adolescence to adulthood life stages mostly experience more loneliness and social isolation due to decreasing economic and social resources, limitations in mobility and loss of parents, spouse, or relatives. There are two types of loneliness which are short-term loneliness and chronic loneliness. Chronic loneliness occurs when someone feels loneliness or isolation, inability to connect with others in person and sadness lasts for long periods of time. Feeling loneliness is associated with an increased risk of certain mental health issues such as stress, depression, social anxiety, and sleep problems. According to Fardghassemi and Joffe (2022), the experience of loneliness has detrimental effects on physical and mental health among young adults and adolescents, which is linked with immune deficiency, poor sleep, psychological stress, depression, and anxiety.

Loneliness is a major health problem that has been increasing in recent years. According to the analysis of 345 research, loneliness levels have significantly increased between 1976 and 2019, stating that loneliness may be of rising concern in emerging adulthood (Kara-Yakoubian, 2022). A study of Fardghassemi & Joffe (2022), identified that young adults, specifically those between 16 and 24 years old, are vulnerable to loneliness. One of the major transitions is from high school to university, which is a crucial event in the adolescence stage related to social changes that affects relationships, routines, assumptions, and responsibilities that may lead to loneliness (Diehl et al., 2018).

Social media is an internet-based form of communication which is used by billions of people around the world. As of January 2021, it is estimated that 86 percent of the population in Malaysia uses social media for various reasons and there is an increase of 24 percent compared to the year 2016 (Lab, 2021). The population group that is majorly using social media for entertainment, education, work, and other purposes is young adults. Facebook is the most active social media platform which in the first ranking, its daily active user base has grown year-over-year as well. As of July 2022, it is analysed that Facebook is the largest social media platform globally with 2.93 billion monthly active users worldwide (Dateportal, 2022). Facebook has its own uniqueness which makes the users too addicted to it. However, Facebook also brings some disadvantages such as cyberbullying, cause addiction, access to inappropriate content like pornography, privacy issues and loneliness or social isolation. Excessive use of Facebook leads to economic, physical, and psychological problems such as over-expenditure, eye problems, headaches, stress, sleep disturbances, etc. (Hosen et al., 2021).

Facebook nowadays has become more important and much more influential in our daily life especially among adolescents. Baglari et al. (2020) revealed that social media use such as Facebook, WhatsApp, and Instagram have increased over the years. Youths use social media

for sharing various perspectives of their life which includes sharing their experiences, facts, photos or videos and other information. Facebook brings many benefits for the university students such as performing tasks, access to information, social interaction to contact people in different places and more. Although Facebook has made life easier for university students it also has dire consequences when it is being overused and becoming addictive. Social media addiction has a negative effect on one's daily lifestyle and affects one's physical and psychological health, including feelings of loneliness and depression (Bakry et al., 2022).

Besides, parental attachment refers to a deep and lasting emotional connection between parents and their children. Attachment parenting is a modern parenting concept where parents' connection and responsiveness to their baby's needs have a lasting effect on their baby's future emotional health and relationships (Raha, 2022). Parental attachment focuses on the nurturing connection or strong bonding that parents can develop with their kids. The close parent-child attachment has a relationship on children's good behaviour habits. In families where parent-child attachment is secure, children are close to their parents, trust their parents, and are more responsive to their parents' behaviour during interactions with them. This can enhance parents' positive emotional experience and parenting confidence; thus, parents will invest more resources in children (Mo et al., 2021).

This clearly shows that loneliness is still experienced by many people, especially young adults. University students are facing loneliness because of several reasons (Diehl et al., 2018). The importance of this study is to know the level of Facebook usage and parental attachment to loneliness among public university students in Perak. By this, researchers could identify how it correlates and acknowledge it through this study.

STATEMENT OF THE RESEARCH PROBLEM

Loneliness has been happening and increasing among young adults over the years because of various reasons including psychological disorder, low self-esteem, fear of rejection, lack of social skills, separation or death of loved ones and personality factors (Pietrabissa & Simpson, 2020). Social media plays a major role in exacerbating loneliness experiences. Transitions between life stages such as breakups, loss of loved ones and transient stages to do with education and employment are felt to cause loneliness (Fardghassemi & Joffe, 2022). According to Rahman et al. (2017), university is a transition period from being an adolescent to being an adult. For many university students, this may be the first time they live away from their parents and the experiencing lack of emotional and social support from their families. The poor social and emotional support for university students, may lead to poor psychological consequences such as, loneliness and depression (Mofatteh, 2021). Therefore, it can be identified that loneliness is a root cause of severe mental and physical health issues. Prolonged loneliness is significantly associated with poor physical performance in adults and severe depressive symptoms. Particularly concerning is the fact that loneliness can be related to unhealthy lifestyles, self-neglect such as excessive alcohol consumption, poor hygiene, and undernourishment (Zuhaida Hussein et al., 2021). Loneliness issues among university students leads to poor social skills, difficulties in face-to-face communication, isolating themselves, more introverts and prefer online chatting.

University students' dependency towards Facebook has proliferated over the years as it is an effective platform to learn and earn. University students spend enormous time on Facebook to complete their academic related chores, connect with their friends, enhance digital skills and more. However, it somehow affects the university students negatively. The addiction and adaptation toward Facebook use is significantly associated with loneliness among university students. People who abuse social media have reported low work or academic performance, isolation, behavioural disturbances, sedentary lifestyle, obesity, disregard for daily activities and leisure (Barnes et al., 2019). A study of Lozano et al., (2020) have revealed that excessive use and Facebook addiction disorder (FAD) is positively correlated with anxiety, depression, insomnia and stress, and loneliness among university students. There is evidence that individuals who spend a lot of time on Facebook are more likely to experience social comparison, feelings of jealousy and loneliness which leads to anxiety (Faelens et al., 2019).

Besides, a child's personality or behaviour has always reflected their parent's upbringing and values. There are no set guidelines for the parents to follow in raising their child, thus each parent has their own way of raising their child. The parental attachment plays an important role in the development of a child. A strong parental attachment may lead the children to have a healthy social, positive emotions, cognitive, and motivational development. Without parental attachment, children are less likely to grow up to be happy, confident, independent, and become resilient adults. Moreover, parental separation, divorce or death has a tremendous impact on their children's lives. It has a higher risk of developing a variety of mental health conditions such as feelings of loss, anger, confusion, anxiety, loneliness, and poor academic performance. Neglectful parenting can cause the child to feel lonely, because they do not receive the attention and affection they require from their parents (Garima & Arshiya, 2017).

Most of the existent research shows how loneliness affects students' education and social life, but very few research studies focus on the factors contributing to loneliness, which proves that this topic has not been given serious attention by the community. There is not enough literature and very limited studies regarding the factors of loneliness that have been arising among public university students in Perak. Thus, the purpose of this study aims to determine the relationship between Facebook usage and parental attachment on loneliness among public university students in Perak.

LITERATURE REVIEW

Loneliness

Hards et al., (2021), stated that periods of social isolation are associated with loneliness in children and young people, and loneliness brings negative impact to their mental and physical health. Hards et al., (2021) conducted a systematic review to find the relationship between loneliness and mental health problems in children and young people. The researchers sought to identify all primary research that examined the cross-sectional and longitudinal associations between loneliness/perceived social isolation and mental health in children and young people. Based on the previous studies, the researchers concluded that loneliness was associated with anxiety and depression both cross-sectionally and prospectively in children and young people

with mental health problems and neurodevelopmental conditions. This is highly relevant in the current context of COVID-19 pandemic since enforced social isolation measures may increase loneliness. Covid-19 pandemic has caused widespread loneliness because of the unprecedented school closures and restrictions imposed on social interactions. However, they also concluded that existing interventions could address loneliness and mental health issues among children and young adults. The researchers also suggested psychological treatments can help to reduce feelings of loneliness in this population.

A study by Sundqvist & Hemberg, (2021), shows there are several risk factors for loneliness were found amongst adolescents including social transitions, isolation, not having anyone to contact, group differences, social expectations, ill-being, negative emotions, former negative experiences, negative self-image, and difficulties in contacting people. The researchers also stated that social transitions such as moving to a new town for work or study purposes, were vulnerable periods during adolescents' lifetime, this period was extremely challenging since one often moves away from family and friends, and sometimes also having to adjust to new conditions. This situation leads to difficulties in establishing new social networks and friends and not having a social network also affected loneliness negatively.

A study conducted by Diehl et al., (2018), aims to quantify loneliness among students and to identify its determinants and its relation to transition-related variables such as changes in weight, diet, or physical activity since the transition from high school to university. This study showed that loneliness seemed to be prevalent among university students. The transition from school to university life is associated with social, structural, and behavioural changes which result in loneliness and morbidity. The researchers found that university students had friends with shared interests with whom they spent time by participating in sports or going to parties. However, these relationships could be rather superficial in that they lacked an emotional component, which led to emotional loneliness.

Facebook Usage

Raza et al., (2020), stated that social networking sites especially Facebook usage among university students is increasing day by day. The researchers conducted this study to examine the causes of intensive Facebook usage among university students in Pakistan through a modified framework. The various reasons for using Facebook included items such as users to create personal profiles, share pictures, ideas, and documents, reality escape, ease to use, information-seeking, subjective norm, social relationships, career opportunities, education purposes, attitude, perceived behaviour control, and more. The findings show that social influence, social relationships, perceived behaviour and attitude control, and access to information have a positive and significant impact on Facebook usage among students. The study concluded that individuals are more driven to use Facebook to make their social circle strong, learn new ideas, and use Facebook as an opportunity seeking platform.

A study conducted by Dibb & Foster (2021), to identify the associations between Facebook usage and loneliness, those who make upward comparisons on Facebook and engage in rumination, also experience feelings of loneliness. Findings of the study depicted the growth of Facebook; the rising prevalence of loneliness and the negative physical and mental

consequences are associated with loneliness. Target audience of this research is Facebook users, participants from 18 to 72 years old have taken part in this research. 214 active Facebook users have completed a cross-sectional online questionnaire that measures the nature of their Facebook use, how frequently they ruminate, the tendency to compare themselves with their Facebook friends, and upward and downward social comparison. The results showed that rumination and social comparison on Facebook were significantly associated with loneliness. This study has explained how the online social network (Facebook) designed to connect people with their friends and family, is associated with a rise in loneliness within society. Thus, it can be concluded that Facebook users who ruminate and compare themselves with their perceived superiors on Facebook are more likely to experience loneliness. The researcher also suggested some solutions to overcome loneliness issues such as raising awareness about loneliness and using algorithms on Facebook to deliver targeted interventions.

According to Satici (2018), Facebook has gained a huge amount of popularity in today's era. Thus, the researcher took the first attempt to present a quantitative model describing the relationship between Facebook addiction and subjective well-being including shyness and loneliness. To conclude, the present study empirically showed that both loneliness and shyness have a significant relationship between Facebook addiction. The findings emphasized the role of youth shyness and loneliness in explaining the relationship between Facebook addiction and subjective wellbeing.

Parental Attachment

A study by Burns et al., (2022), found that parental bonding in childhood has been associated with loneliness in younger populations. This study discussed poor parental bonding including less connections, less care or they are less satisfied with the connections they have, it will be reported in increasing loneliness regardless of isolation among younger population.

According to Schaan et al., (2019), parental divorce has been associated with reduced well-being in young adults such as social anxiety, loneliness, and mental health issues. This study was conducted to investigate the possibility of young adults developing mental illnesses because of their divorced parents. The researchers also examined the differences in terms of parental care, social connectedness, chronic stress, and traumatic experiences between children of divorced and non-divorced parents. The findings showed that young adults of divorced parents had a higher risk of mental and personality disorders as compared to young adults of non-divorced parents. Participants from divorced families reported more depression, loneliness, childhood trauma, attachment avoidance, attachment anxiety, chronic stress and less parental care as compared to non-divorced families. The children of divorced parents might experience more chronic stress, loneliness, attachment avoidance, attachment anxiety, and traumatic experiences during childhood. This issue highlights the importance of prevention programs and psychoeducation during the process of parental divorce.

According to Peng et al., (2022), premature parental death is strongly associated with many mental health disorders in adulthood, and it increases the risk of loneliness. The study found that being younger, single, divorced, or widowed, and more educated, living alone, and

having chronic disorders were associated with loneliness. The study can be concluded that childhood parental death is strongly linked with loneliness in adulthood, suggesting the need for early intervention in affected children to prevent long-term negative neuropsychiatric effects.

Media System Dependency Theory

The theory used for this research is Media System Dependency Theory by Sandra Ball-Rokeach and Melvin DeFleur (1976). Media dependency theory is a mass communication theory that explains the long-term effects and overall relationship between mass media, the audiences, and a society. This theory states that the more dependent an individual is on the media for having his or her needs fulfilled, the more important the media will be to that person (Mohamed Nawi et al., 2022). People in modern society heavily rely on media such as social media platforms, broadcasting, print media, digital media, and televisions to understand the world around them. Media can create a dependent relationship with the target audience to achieve his/her goals by using its media power (Wainner, 2018). The media have an ability to satisfy the audience's needs. Thus, the frequency of using the medium increases, the individual becoming more dependent on the media. Otherwise, the media dependence will become less.

This theory applies to discover why public university students depend on social media platforms rather than learning from real life. Young adults, especially university students, use various types of social media such as Facebook, Instagram, Twitter and TikTok to get more information or to fulfil their needs. Facebook platform is the independent variable of this study. The researcher wants to know the level of Facebook usage and loneliness behaviour among public university students in Perak. Although there is a wide variety of platforms that can be created with different aesthetics, Facebook is the world's first ranking social networking site due its own uniqueness (Teens, social media, and technology 2022). Media dependency theory is related to this study because public university students depend a lot on Facebook which eventually affects them in a good and bad way.

There are potentially three types of effects that result from an audience's dependency on the media which are cognitive, affective, and behavioural. Cognitive effects mean changes in an individual's beliefs and values. Affective effects refer to creation of fear and anxiety from continuous exposure to violent media about a group or idea. Behavioural effect is "deactivation," which occurs when individual members of an audience refrain from taking certain actions that they would have taken had they not been exposed to certain messages from the media (Luo & Chea, 2018). Behavioural effect is the crucial aspect of this research. This research will show the behavioural effects such as being introverted, social isolation or being lonely due to using Facebook among public university students in Perak. Thus, this study has been conducted among public university students in Perak, to find out their level of Facebook usage, needs on using Facebook and its effect.

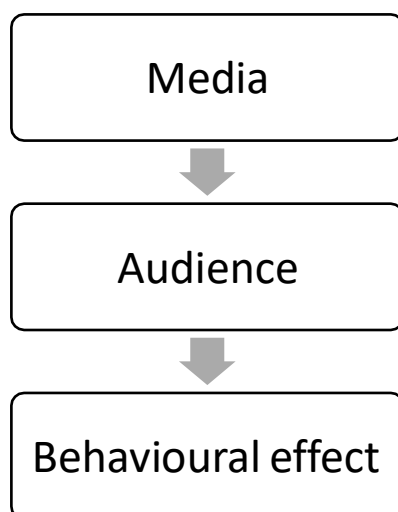


Figure 1: Theoretical Framework of this study by adapting Media System Dependency Theory by Sandra Ball-Rokeach and Melvin DeFleur (1976)

MATERIAL AND METHODS

Participants and Methods

The participants of this study are the public university students who are currently studying at Sultan Idris Education University (UPSI), University of Technology MARA (UiTM) Tapah and (UiTM) Seri Iskandar in Perak. The participants were 400 respondents from public universities in Perak aged between 18 and 26 years selected using simple random sampling. The sample of the participants was drawn from a population of 40,000 pupils from three public universities in the Malaysian state of Perak. UiTM Tapah comprises 4610 students (UiTM Digital Tapah Campus, 2023) and 10,582 students at UiTM Seri Iskandar (Portal Seri Iskandar Campus, 2023). UPSI consists of 26,567 students (Portal Utama UPSI., 2022, July 15). According to the table provided by Krejcie and Morgan (1970), the sample size for this research study will be 380. Simple random sampling method will be used to have the same chance of being selected from every item of the entire population. This study employed a quantitative research method in the form of self-administered online questionnaire. The researcher distributes the self-administered online questionnaire through google form because it is the most affordable and effective method of data collection from a wide audience in a short period. Self-administered surveys have the potential of getting more truthful or valid responses. Moreover, it helps the researcher save time, money, and energy. It is convenient for the respondents also as they can take their time to complete the questionnaire at their own leisure. The respondents' confidentiality has highly been observed to ensure that the information obtained remains very private and confidential. The participants spent 10-15 minutes answering the online questionnaire. The strategy used to distribute the self-administered online questionnaire including social media platforms such as WhatsApp, student's email, and pass the google form link to the selected universities email to reach out the targeted audience.

Measures, Data Analysis & Reliability

This study used a structured questionnaire and five-point Likert scale that helped in achieving the objectives of the study on the relationship between Facebook usage, parental attachment on loneliness among public university students in Perak. This study uses a five-point Likert scale where the respondents need to choose one option based on their level of agreement for every item in the self-administered online questionnaire. The questionnaire consists of 5 sections which are section A: Demographic profile, Section B: Facebook Usage Pattern, Section C: Purpose of Facebook Usage, Section D: Level of Parental Attachment, and Section E: Level of loneliness. There are four types of measurement scales in research which are nominal, ordinal, interval, and ratio. Each of the data measurement scales provide different types of information. These are simple ways to categorize the different types of variables. Thus, the researcher used the nominal scale for the demographic section and Facebook Usage Pattern while ordinal scale for the other 3 sections (Section C, Section D, and Section E) in the questionnaire. According to Allanson and Notar (2020), Nominal scales also known as “labels”, it is a type of coding based on qualities of type or kind such as gender, ethnicity, place of birth whereas ordinal data is concerned with rank-ordered (example: highest to lowest) and summarizes where data points are in relations to each other. The researcher used Likert Scale as the measuring scale in the questionnaire. The Likert scales that are used in this study are five-point scales. Scale 1 indicates strongly disagree, scale 2 represents disagree, scale 3 represents neutral, scale 4 represents agreement, and scale 5 represents strongly agree.

Multiple regression is a model for predicting the value of one dependent variable based on two or more independent variables. Hence, multiple regression analysis conducted to determine the relationship between students' loneliness (dependent variable) and their Facebook usage and parental attachment (independent variables) among public university students in Perak. The statistics that the researcher is going to read are R and R² values. The correlation coefficient -R is usually between value -1 and +1. Therefore, if the value of correlation coefficient R = +1, it indicates that there is a positive relationship between two variables whereas if R = -1, it indicates that there is a negative relationship between two variables. If R = 0, it indicates that there is no relationship between two variables. By referring to Guilford's rule of thumb, the researcher can identify the strength of the relationship between the variables of the study. For the hypothesis testing, the statistics going to be read is sig-F value. Generally, the confidence level is set at (.05). If the sig-F value is lesser than α which is (.05), thus the null hypothesis is rejected. The sig-F is smaller than α (.05) which indicates an alternative hypothesis is accepted and the null hypothesis is rejected. If the sig-r value is more than α which is (.05), the null hypothesis fails to reject. The sig-r is more than α (.05) which indicates alternative hypotheses are rejected. Then, the researcher also will identify the R² value to know how much the independent variables (Facebook usage and Parental attachment) contribute to the dependent variable (loneliness) in this study.

Construct reliability test was run. The first independent variable of this study is Facebook usage which consists of 10 items showing the Cronbach Alpha of .956 for the pretest and alpha value of .904 for the reliability test of 400 respondents. It shows a high relationship between the items. Alpha .9 indicating that the 10 items belong to the Facebook

usage construct. The second independent variable is parental attachment comprising 15 items shows the Cronbach Alpha of .951 for the pretest and alpha value of .985 for the reliability test of 400 respondents. It shows a high relationship between the items. Alpha .9 indicating that the 15 items belong to the parental attachment construct. The dependent variable of this study is loneliness which comprises 15 items showing the Cronbach Alpha of .971 for the pretest and alpha value of .966 for the reliability test of 400 respondents. It shows a high relationship between the items. Alpha .9 indicating that the 15 items belong to the loneliness construct.

RESULTS & DISCUSSIONS

The demographic profile information shows that the female students outnumbered their male counterparts twice as many (74.3 %, n = 297). This is because the number of female students at public universities is higher than the male students. A Statista report in 2022 showed that there were 358,600 female students and 234,080 male students enrolled in Malaysia's public higher institutions in 2020 ("Malaysia: Students in public higher education institutions by gender," 2021). Almost a half of the participants are in the age range between 22 and 23 years because the typical college or university student's age is over 20 years old where they are currently pursuing their degree in public universities after their foundations, Malaysian Higher School Certificate (STPM) and diploma. Well over half of the participants (61.0%, n = 244) were Malays. The majority of the respondents were Malays due to the fact that most of the Malay students are enrolling their tertiary education in public universities, especially at UiTM. Accordingly, UiTM is a tertiary education for the Malays and Bumiputera only. As for the educational background, degree level occupied the highest percentage (76.8%) representing 307 respondents. The number of respondents pursuing a degree is higher because all the 3 universities (UPSI, UiTM Tapah, and UiTM Seri Iskandar) have the majority of degree students rather than diploma and master's students. Majority of the respondents from Sultan Idris Education University, (UPSI) occupied the highest percentage (64%) representing 256 respondents. This is because the total number of students at UPSI is higher than the other 2 public universities (see Table 1).

Table 1: The Demographic Profile of Respondents (N=400)

Variables	<i>f</i>	%	Mean	SD
Gender				
Male	103	25.8		
Female	297	74.3		
Age			1.963	.310
19	27	6.8		
20	50	12.5		
21	60	15.0		
22	84	21.0		
23	110	27.5		
24	41	10.3		
25	16	4.0		
26	8	2.0		
27	4	1.0		
Ethnicity				
Malay	244	61.0		
Chinese	49	12.3		
Indian	88	22.0		
Others	19	4.8		
Educational Background				
Diploma	81	20.3		
Degree	307	76.8		
Master's	12	3.0		
PhD	-	-		
University				
UPSI	256	64.0		
UiTM Tapah	53	13.3		
UiTM Seri Iskandar	91	22.8		

RO1: To identify the level of loneliness among public university students in Perak

Table 2: Frequency Distribution of Loneliness (N=400)

Variable	<i>f</i>	%	Mean	SD
Loneliness			2.548	.744
Low (1 ± 2.33)	61	15.3		
Moderate (2.34 ± 3.66)	59	14.8		
High (3.67 ± 5)	280	70.0		

The mean score and standard deviation of the level of loneliness among public university students is (mean= 2.548; SD= .744). The data collected shows that most of the respondents, 280 (70.0%) were feeling lonely at university. Loneliness is one of the common issues at universities. Most of the students might feel lonely because of staying away from family or moving from their hometown to a new place. They feel it's hard to adjust to new situations and trouble making new friends, as well as the physical absence of loved ones. Nowadays, loneliness was widespread among university students especially among the female students who were in the first-year group, students with poor economic status, and those who smoked and lived in dormitories (Zahedi, Sahebihagh, & Sarbakhsh, 2022). Loneliness peaked among the youngest university students in the age range between 18-20 years old because of the transition to university life (Diehl et al., 2018).

A study by Hysing, et al. (2020) revealed that loneliness is frequently experienced among college and university students, as shown by 14-24% of the students responding that they “often” or “very often” suffered from a lack of companionship, felt left out, or felt isolated. Accordingly, most of the respondents of this study were having a lack of companionship, feeling shy to talk with strangers, difficult to make friends, feel isolated, and rarely found common ground with people in the university.

Leal Filho et al., (2021) found that the impacts of the Coronavirus Disease 2019 (COVID-19) pandemic and the university's shutdown led to social isolation among university staff and students. The COVID-19 pandemic and its subsequent measures had a significant impact on the experience of loneliness among university students. This is because, getting back to reality after staying home for a longer period, it's really tough to feel connected with people in person.

Inferential Analysis

RO2: To examine the predictors of loneliness among public university students in Perak.

H1: There is a significant relationship between the predictors and loneliness among public university students in Perak.

Table 3: Multiple linear regression of Facebook usage, Parental attachment on Loneliness (N=400)

Variables	B	Beta	T	P
Constant	2.405			
Facebook Usage	.296	.281	5.849	<.001
Parental Attachment	.124	.130	2.693	.007
F = 24.222	R = .330			
Sig-F = <.001	R ² = .109			

Table above shows the result of multiple regression analysis of students' loneliness (dependent variable) and their Facebook usage and parental attachment (independent variables) among public university students in Perak. The findings indicated a significant model fit, which means there is a significant relationship between Facebook usage, parental attachment, and loneliness. This is because, sig-p (<.001) is lesser than α which is (.05), thus the null hypotheses are rejected. The sig-p is smaller than α (.05) which shows alternative hypotheses are accepted. Apart from that, the value of correlation coefficient: R: .330. According to Guilford's rule of thumb, there is a positive and low relationship between loneliness (dependent variable) and Facebook usage, parental attachment (independent variable) at .05 level of significance. Hence, it can be found that there is a significant relationship between loneliness (dependent variable) and Facebook usage, parental attachment (independent variables) among the public university students in Perak. However, the relationship strength is positive and low. The multiple regression model for loneliness regarding Facebook usage and parental attachment showed R² -.109 which is equal to 11%. The independent variables collectively accounted for 11% of the variance on loneliness among public university students in Perak. The regression model was statistically significant, providing evidence of a relationship between the predictors and the dependent variable. Among the predictors, Facebook usage (independent variable) was found to be a stronger contribution to loneliness. This is because the standardized β coefficients of Facebook usage (β - .281) was found to contribute higher compared to parental attachment (β - .130) on loneliness, however both indicated significant value.

The findings show that there is a significant relationship between Facebook usage and loneliness, but the relationship strength is positive and low. This is because most of the respondents own a Facebook account and are actively using it. Facebook has become part of public university student's lives and they use it frequently for many purposes. The respondents of this study were using Facebook for entertainment, education purposes, as a communication tool to update my photos, thoughts, or life updates and to see other people's life updates.

Facebook addiction was found to be higher among university students, and it is negatively affecting their academic performances and it was associated with affected mental well-being, feeling lonely and reduced self-esteem (Dule et al., 2023). Excessive use of Facebook was associated with feelings of social isolation or experience of loneliness. University students feel comfortable engaging in Facebook interaction but are not able to interact in person, thus leading to feelings of loneliness. Students who were spending more time on Facebook might lead to lack of nonverbal cues, feelings of social comparison, as well as feelings of isolation because of constant FOMO (fear of missing out). Hence, the daily overuse of Facebook is unhealthy because it enables students to avoid creating face-to-face bonds with people. The significant relationship between Facebook usage and loneliness among public university students is extremely risky as this can lead to lower self-esteem, stress, and depression.

However, the relationship strength between Facebook usage and loneliness shows a positive and low relationship. It means that there is a positive relationship between Facebook usage and loneliness among the public university students but at a low level. This is because the public university students were using Facebook daily, but they spend less than an hour per day. The data collected also shows that public university students were using Facebook to forget their personal problems and calm their mind. Public university students have been practicing taking a break from Facebook. They are being more proactive nowadays by following accounts that are uplifting, motivational and encouraging only. A study found that taking a break from social media can significantly improve well-being and reduce symptoms of loneliness, depression, and anxiety (Jeff Lambert, 2022). Hence, the public university students set a time limit to use Facebook to avoid unnecessary issues such as social isolation, behavioural disturbance, stress and more. Public university students are aware of the adverse effects of using Facebook that is happening around them thus they have been using it wisely and mindfully.

Besides, the findings also show that there is a significant relationship between parental attachment and loneliness, but the strength is positive and low. There is a significant relationship between parental attachment and loneliness because strong parental attachment leads university students to feel lonely in their university. Children who have a strong attachment with their parents find it difficult to survive alone in their university. A recent change in children's life, such as moving from home to a university, can make a child feel lonely. The absence of their parents' presence around them may affect children's psychological well-being and academic achievement at university. Emotionally distant relationships with parents can leave children lonelier (Yan, Feng, & Schoppe-Sullivan, 2018).

However, the relationship strength between the parental attachment and loneliness among public university students in Perak is positive and low. Some students only might feel lonely in university life even though mingling with friends. Moreover, the first-year students are more likely to feel alone than the other years of students. First-year students were having a high level of loneliness as compared to second-year and above students due to lacking familial or social contact during doing their degree programme at university (Dagneu & Dagne, 2019).

These findings suggest that Facebook usage and parental attachment are important factors in determining students' loneliness although it's just contributing 11% of the variance to the loneliness. It is worth noting that while this analysis provides valuable insights, other

unmeasured variables may also influence the loneliness issue among university students and should be considered in future research. Hence, future researchers please identify what are the other 89% of influential factors of loneliness. Overall, these results highlight the importance of considering Facebook usage and parental attachment when examining loneliness among university students, providing valuable insights for academic institutions administrators or relevant ministries in order to manage students' loneliness and mental health.

CONCLUSION

Overall, this research study has identified the Facebook usage and parental attachment on loneliness among public university students. The findings show that the level of Facebook usage, level of parental attachment and level of loneliness among the public university students is high. Multiple regression analysis has been conducted to know the relationship between the independent variables and dependent variables of this study. The findings show that there is a significant relationship between Facebook usage, parental attachment, and loneliness among public university students in Perak at sig-F ($<.001$). There is a positive and low relationship between Facebook usage, parental attachment, and loneliness at .05 level of significance. However, both variables contribute 11% of variance to loneliness among public university students in Perak. Hence, future researchers may identify the other influential factors of loneliness. Finally, some limitations and recommendations have been discussed as guidelines for the future researchers to do development or improvement on this topic.

Limitations and Recommendations

There are some limitations that are addressed during the process of this study conducted. One of the limitations of this study is the targeted population. This study is limited to 400 participants only from UPSI, UiTM Tapah and UiTM Seri Iskandar due to time and energy constraints, accessibility, and cost effectiveness. The sample size of the study is limited towards public university students only in Perak. There are other academic institutions in Perak such as private universities, colleges, and high schools. Thus, the results cannot be generalized to all students in Perak. Besides that, this study is limited to 2 independent variables which are Facebook usage and parental attachment. The researcher feels this study can be more impactful and meaningful if more variables such as peer influence, socioeconomic status, and relationship status are included in this study. However, the researcher managed to use 3 variables and discuss it in detail in this study.

This study used a quantitative method of data collection method in the form of an online questionnaire due to the huge population, cost effectiveness, and time constraint. Therefore, it is recommended to conduct the data collection directly through face-to-face interview or focus group discussion with the participants. This is because the qualitative design will provide the opportunity to get deeper insights about the participants' feelings, body language, experiences, emotions, and context in depth. Besides that, Multiple linear regression shows that the independent variables of this study contribute 11% of variance on loneliness as the remaining 89% factors are unidentified. Thus, it is recommended that future studies can identify and measure what are the other factors that influence loneliness among university students. The other factors that might influence loneliness among university students are peer influence, relationship breakups, long-term illness, domestic violence, trauma or abuse.

ACKNOWLEDGEMENT

High appreciation and thousands of thanks to my research project 's supervisor, Dr Sarina Binti Yusuf, for providing invaluable guidance and support throughout the months leading up the completion of this paper. Her contribution and assistance are sincerely appreciated and gratefully acknowledged. Not forgetting all the parties that were involved directly or indirectly in solving all the difficulties, thank you.

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