Analyzing the Influence of Excessive Digital Technologies Usage towards Emotional Intelligence Development of Undergraduate IPTA Students in Klang Valley, Selangor

Samir Muhazzab Amin[1][*], Khairunnisa Mohd Nizam[1], Nur Shuhamin Nazuri[2], Siti Shazwani Ahmad Suhaimi[1]

[1]Faculty of Human Ecology, Universiti Putra Malaysia, Serdang, Malaysia Universiti Putra Malaysia, Serdang, Malaysia

[2]School of Economics, Finance and Banking (SEFB), Universiti Utara Malaysia, Sintok, 06010 Bukit Kayu Hitam, Kedah

[*]Corresponding Author

ABSTRACT

The relationship between social media usage, online gaming usage, online shopping usage, social skills and emotional self-regulation has been studied in many Western countries. Nevertheless, the relationship between these variables has not been extensively studied. The objective of this study is to determine the influence of social media usage, online gaming usage, online shopping usage on undergraduate students' social skills and emotional self-regulation. A total of 400 undergraduate students from eight universities in Malaysia participated in this study. In terms of social media usage, the levels are high, while online gaming and online shopping usage are moderate. On the other hand, respondents exhibit very low emotional self-regulation, whereas their social skills are notably high. There are differences between males and females in terms of social skills and emotional self-regulation. Females exhibit higher levels of social skills, while males show higher levels of emotional self-regulation. Through the survey, the study confirmed that all variables have a significant relationship towards social skills and emotional self-regulation. The study also found that social media usage has the most significant positive impact on social skills. Meanwhile, the relationship between social media usage has negatively significant towards emotional self-regulation. It can be concluded that the relationships between social media usage, online gaming usage, online shopping usage, social skills, and emotional self-regulation among undergraduate students in Malaysia have significant implications.

Keyword: Digital technology, social media, online gaming, online shopping, social skill

INTRODUCTION

Emotional intelligence refers to our capacity to recognize, understand, manage, and influence both our own emotions and those of others. It encompasses self-control, effective communication, social skills, and the ability to motivate and connect with people. In Neala's (2020) article summarizing Daniel Goleman's emotional intelligence framework, she highlights four interconnected competencies: self-awareness, self-management, social awareness, and relationship management. Her findings indicate that emotionally intelligent individuals excel in stress management, leading to improved emotional stability, mental well-

being, and physical health.

Emotional Intelligence (EQ) encompasses our ability to recognize and manage emotions, both within ourselves and in others. It plays a pivotal role in real-life scenarios, such as relationships, decision-making, and communication. EQ allows us to develop greater self-awareness, adopt functional responses to our environment, and build empathetic relationships with others (Choudhury, 2021; Makwana et al., 2021). On the other hand, Intellectual Intelligence (IQ) focuses purely on cognitive abilities, including problem-solving, logical thinking, and grasping complex ideas. High IQ is associated with academic achievement, better grades, and test scores. It enables individuals to understand complex concepts, adapt, reason, and solve problems (Ashaye et al., 2023). In educational settings, high intelligence and a conscientious personality have been identified as the most crucial psychological traits for academic success, with emotional intelligence being a significant third factor (MacCann et al., 2020). While both EQ and IQ are essential, they serve different purposes. EQ provides the interpersonal skills necessary for navigating complex social relationships, empathy, and personal well-being. In contrast, IQ contributes to academic and technical expertise. Interestingly, studies show that 71% of hiring managers prefer high EQ employees over high IQ individuals (Makwana et al., 2021).

Nevertheless, the widespread use of digital technologies in today's digital age has significantly altered various parts of people's life, including the development of emotional intelligence. Emotional intelligence, which includes social skills and emotional self-regulation, is critical in managing social relationships and maintaining overall well-being. With the growing popularity of digital technologies such as social media, online gaming, and e-commerce, it is critical to explore the effects of excessive usage of these digital technologies on individual emotional intelligence, particularly in the Malaysian setting.

Previous research also has suggested that the widespread use of digital technologies has yielded both positive and negative effects on the development of emotional intelligence. Social media platforms, for instance, facilitate communication, self-expression, and knowledge sharing, yet excessive use may impair social skills and emotional self-regulation. Similarly, while online gaming can enhance problem-solving, teamwork, and strategic thinking abilities, excessive gaming may negatively impact emotional management and social competence. For instance, Mohd Salleh et al. (2018) examined the relationship between social media activity and social skills among Malaysian users. Their research found that addictive social media behavior is associated with poor social skills and also affects individuals' emotional states. This finding is supported by Kuss and Griffiths (2017), who noted that continuous exposure to social media content, comparisons with others, and online interactions can trigger a range of emotions, including envy, anxiety, and depression. Therefore, this study aims to understand the relationship between social media usage and emotional intelligence by analyzing both social skills and the emotional well-being of individuals. Moreover, the impacts of internet gaming on emotional intelligence have garnered significant attention in Malaysia. According to Statista (2022), the majority of internet users in Malaysia are in their 20s, with college and graduate degrees, comprising 46% of the total population. Correspondingly, a study from several years ago highlighted that online gaming has become one of the most addictive internet activities. Salleh et al. (2018) reported that 20.6% of respondents believe online gaming negatively affects their behavior, while 67.4% believe it has positive effects.

However, Bakar et al. (2020) has evaluated the impact of online gaming on social skills among Malaysian students and discovered a negative relationship between excessive online gaming and the development of social skills. While a study by Hazar et al. (2018) indicated that attractions to video games among youth has led them to many problems related to social, emotional, and physical health. Therefore, this study aims to investigate whether the usage of online gaming has influences towards emotional intelligence development of individuals particularly in students' lives, since it can adverse mental health, social life, and academic performances. Thus, this study is called to investigate further the link exists between online gaming usage

and emotional intelligence especially among IPTA students in Klang Valley.

According to the past studies, there are many factors that influence the emotional intelligence of an individual. McCrae et al. (2017) discovered a problem regarding social media use where the finding showed that excessive usage of social media is one of the main factor impacting people's emotional state. From the study, participants are reported to spend more than 6 hours on a typical day surfing through social media. The Communications and Multimedia Ministry secretary-general, Datuk Seri Mohammad Mentek stated that the number of social media users in Malaysia had significantly increased by two million in just a year from 2020. The biggest reason is believed due to pandemic situation which forced people to stay at home most of the time. This can be support by Primack et al. (2017) saying that the number of social media accounts correlated with the level of anxiety, psychological distress, and depression, due to overwhelming demand. It was determined that social media users tend to fall into comparing themselves to others to access their opinion and abilities which lead to difficulty in managing their emotions, leading to impulsive and reactive behaviours.

There is a different study conduct by Akram (2018) which focusing on the positive and negative effects of social media usage. It is mentioned that social media plays a huge role in shaping people social skills. However, an excessive use of social media has been linked to poor social skills especially among adolescents. As reported by the study, people who spend a lot of time on social media tend to have less face-to-face interaction with others, which can make them less adept at reading body language, facial expressions, and other social cues. Additionally, social media can create a false sense of connection, leading some individuals to rely on digital communication rather than developing relationships through authentic conversation and interaction.

Alternately, based on other studies by King et al. (2012), there is also a similar problem arise where he mentioned that excessive usage of online gaming is one of the main reasons that caused variety of negative psychological consequences impacting individual's emotional intelligence. This was also reported by (Griffiths et al., 2012) saying that extreme usage of online gaming often leads to work and social sacrificing, increased stress, poorer social skills as well as aggressive and hostility behaviour. The study reported that heavy gamers demonstrated higher problematic behaviour ranging from 17%-34% of the total respondents compared to general user around 1.7%-10%.

On the other hand, there is also a study conducted to investigate online shopping addiction and its effects on individual's health. Kumar et al. (2019) reported that excessive online shopping also impacted the emotional state of the users. The study said 31.5% of the respondents suffered from high compulsive buying behaviour and it leads to online shopping addiction. The study mentioned that compulsive shopping behaviour is often accompanied by depression, anxiety, low self-esteem, lack of self-control, social anxiety, and social isolation.

Thus, in effort to better understanding how these variables affect the self-regulation and social skills, this study is designed to investigate the excessive usage of social media, online gaming, online shopping and the influences towards emotional self-regulation and social skills of undergraduate IPTA students in Klang Valley, Selangor. Furthermore, this study also determined the gender of the digital technologies user whether it has link to the emotional self-regulation, and social skills level of an individual. Hence, the objective of this study is to investigate the relationship between excessive digital technologies usage and emotional intelligence development among the undergraduate students in Klang Valley, Selangor with the specific objectives as follows:

1. To identify the level of excessive digital technologies usage (social media, online gaming, online shopping) and emotional intelligence (emotional self-regulation and social skills) of undergraduate students in Klang Valley.

2. To determine the differences of emotional intelligence development (emotional self-regulation and social skills) between female and male students.
3. To determine the relationship between excessive digital technologies usage (social media, online gaming, online shopping) and emotional intelligence development (emotional self-regulation and social skills).
4. To determine which predictor variable, have the most influence towards emotional intelligence development (social skills and emotional self-regulation).

LITERATURE REVIEW

In today's interconnected and fast-paced world, emotional intelligence plays a prominent role. With most of our interactions occurring through digital platforms, people now have greater freedom in their actions and words. However, it is important to acknowledge that high emotional intelligence is required to recognize, understand, and regulate emotions, as well as fostering positive social cycle and relationships. Unfortunately, numerous factors can contribute to a lower level of emotional intelligence, which potentially leads to unpleasant behaviors. For example, there are a lot of cyberbullying cases, online harassment being reported as well as the fear of missing out (FOMO) trend, and other scenarios that can significantly affect individual's self-esteem in socializing and overall emotional well-being. Therefore, this study aims to uncover the potential impact of digital technology usage on emotional intelligence whether it brings more benefit or harm towards emotional intelligence development of individual.

The purpose of this literature review is to thoughtfully evaluate and summarize current literature to discover correlations between the heavy use of digital technology and the development of emotional intelligence among undergraduate IPTA students in Klang Valley in term of their social skills and emotional self-regulation. The review will look at significant findings, theories, and research evidence from relevant studies conducted both globally and locally to provide a deeper understanding of the potential mechanisms in which digital technology usage may impair emotional intelligence. By investigating this relationship, the study hopes to gain a better knowledge of the possible influences of digital technology on emotional intelligence, as well as to contribute to the wellness and personal development of undergraduate students in modern society.

Emotional self-regulation

Emotional self-regulation is the ability to manage and control one's own emotional responses in a healthy and productive way that leads to positive outcomes. It involves identifying and acknowledging emotions, understanding their triggers, and using strategies to regulate them (Khan et al., 2021). The ability to self-regulate emotions is important in developing relationships, managing stress, and achieving personal goals. This is aligned with a study by Tangney et al. (2018) in which she mentioned that people with higher emotional self-regulation are doing better in academic performance as well as social interaction. This is because they are able to finish task in time, manage their time effectively and keeping themselves distracted from any emotional state that could hinder their performances. To support the statement, a study by Chong et al. (2015) which was done among secondary students in Selangor stated that young people who are lack in socio-emotional competency have potential in becoming self-centred and lack of empathy towards other. As a results, they would likely portray unpleasant behaviours as they are unable to control their emotions and moods which eventually brings them into conflicts most of the time. In fact, an individual emotional state plays a huge role in shaping one's personality and behaviour.

However, the most important element is actually to discover what the factors are that affecting someone's emotional intelligent development. According to Dasan et al. (2020), pandemic-related stresses occur at some point which affects various parties in society including university students. The duration of lockdown

and the arise of new norms somehow influenced the motivation of individuals and Internet addictive behaviour (Cao et al., 2020). The results of the study have been able to reveal the level of self-regulation among university students during the pandemic period is in moderate. This means that during lockdown, most students' self – regulation is not affected despite the change in their Internet usage pattern. Nevertheless, the results are varied from each study as there are record that emotional self-regulation is influenced by a range of factors from individual characteristic to environmental factors. Most study only highlighted on the factors such as parenting style, family environment, peer relationship and other external factors. There is no specific study that highlight the role of digital technologies as a whole such as social media, online game, and online shopping.

Social skills

Social skills are the abilities that people use to interact and communicate effectively with others in a variety of social contexts. These skills are essential for successfully establishing and maintaining relationships, managing conflicts, and navigating social environments. Literature review was carried out in order to comprehend the significance of social skills and their impact on the lives of people.

For example, Wong et al. (2020) explored the association between college students' social skills and psychological well-being. The results of the study demonstrated a link between social skills and numerous aspects of well-being, such as life satisfaction, positive affect, and self-esteem. This emphasizes the significance of social skills in promoting healthy emotional outcomes. Social skills have also been identified as critical for academic performance. Gresham and Elliott (2011) investigated the connection between social skills and academic achievement among primary school students in their study. According to them, the study discovered a favorable relationship between social skills and academic achievement, showcasing the importance of social competency in improving academic performance.

On the other hand, a lack of social skills can have a harmful impact on a person's interactions with others and overall well-being. Developing ways to address these challenges requires an awareness of the underlying causes of poor social skills. Numerous studies in Malaysia also have investigated the causes of inadequate social skills in different populations. For instance, Samat (2018) studied on the variables that contribute to low social skills among Malaysian university students. Excessive social media use was revealed as a significant factor related to lower levels of social skills in the study.

The study emphasized the adverse effects of excessive social media consumption on social interactions and the importance of addressing this issue among university students. In addition, Lim et al. (2015) explored the significance of self-esteem in relation to social skills among Malaysian teenagers. The findings suggested that a lack of self-esteem related to poor social abilities, implying that self-perception has an impact on social competence. These literature reviews highlight the importance of social skills in numerous aspects of life. Improving and developing social skills can result in better social interactions, enhanced self-confidence, and general well-being.

Excessive social media usage and emotional intelligence (emotional self-regulation and social skills)

There are many studies done on the usage of social media and its influences on human behaviour and mental health. One of the aspects studied is in terms of emotional self-regulation. According to our findings, there is a significant relationship between social media usage and emotional intelligence of individuals. It was determined that social media users tend to fall into comparing themselves to others which lead to difficulty in managing their emotions, leading to impulsive and reactive behaviours (Primack & Escobar-Vier, 2017). In past study, it was stated that the association between usage of social media and level of social well-being remains mixed and controversial. For example, Diamond (2021) mentioned that online activity gives people chance to stay connected, empowered and feel included in a community that shares the same experiences

which contributed to increasing social capital and reducing loneliness.

Whereas Seabrook et al (2016) emphasized that prolonged use has also been associated with anxiety and depression. There are many studies done regarding the usage of social media. According to the Data Reportal site, the number of social media users in Malaysia has been increasing by 2.3 million between 2021 and 2022. As for now, it is recorded that there were 30.25 million social media users in Malaysia. This surge in social media usage has been accompanied by a wide range of changes in user behavior, relationships, and mental health. Many define social media as a platform that provides tools and services that enable users to interact with each other, express their opinion, collaborate, and build relationships. In a study by Hepworth, Rooney & Strom-Gottfried (2016), social media is defined as a digital communication network that allows the user to share information to the public. While Buettner (2016) displayed social media as tools that allow the public and companies to create, share data, photographs, exchanges, and virtual systems.

According to Bekalu (2020), the routine of using social media in daily life can be beneficial and positively associated with social well-being and positive well-being if the users are mindful. Nevertheless, unhealthy usage of social media often leads to social media abuse and addiction which raised a significant concern regarding users' mental health and social well-being. Studies showed that social media users are heavily influenced by the content they see on these platforms, and this content can significantly affect their decision-making patterns, emotions, and behaviors. Several studies have suggested that excessive usage of social media can lead to feelings of loneliness, social exclusion, poorer social skills, and depression among users.

In addition, Primack et al. (2017) evaluated the impact of social media use on interpersonal relationships and social isolation in young adults. Higher levels of social media use have been linked with higher degrees of social exclusion and less social engagement with family and friends. The researchers hypothesized that excessive dependency on social media to facilitate interactions and social connection would impede the development of effective social skills required for meaningful personal relationships.

Based on the review, it showed that a high level of social media usage can cause addiction and many unhealthy behaviour including poor social skill and emotional self-regulation which are the main aspect to be study in this research. Therefore, this study will look up on the level of social media usage and whether it is associated with the emotional intelligence development of undergraduate IPTA students in Klang Valley.

Excessive online gaming usage and emotional intelligence (emotional self-regulation and social skills)

Online gaming refers to playing video games over the internet with other people. It has become increasingly popular over the years with the advancement of technology and the growth of social media. Online gaming allows players to interact with each other regardless of their location or time zone. It also provides multiplayer options that allow players to work together to achieve a common goal. Overall, online gaming has transformed the way people enjoy video games and has created new avenues for socializing and entertainment. According to a local study, multiplayer online games allow for connection with others and the establishment of relationships with fellow players. Participation in virtual communities and in-game communication can help foster social relationships and improve social skills (Bakar et al., 2020). On the other hand, some online games also provide a space for emotional expression and empathy towards others. Engaging in character development and experiencing narrative-driven games can improve emotional understanding and empathy as an individual (Mohd Salleh et al., 2018).

However, just like other factors, online gaming communities provide both positive and negative experiences. There is now a relatively large number of studies all indicating that excessive online gaming can lead to a wide variety of negative psychosocial consequences for a minority of affected individuals. High usage of online gaming often led to addiction. Online gaming addiction is classified as spending more time online doing other things during your free time (Todd, 2015). Recently, there are many types of online

video game that would reward the gamers the longer they played, prompting many to play for hours and neglect different aspects of their life. Kaye and Pennington (2016) discovered that most players reported spending anywhere from four to six hours a day online on workdays and eight to twelve hours a day on their off days.

As a consequence, bad gaming habit caused individual with addiction to experience withdrawal symptoms such as irritability, anxiety, and depression when not playing games. They may also have disrupted sleep patterns and neglect daily responsibilities and relationship with family and friends. Few studies conducted in Malaysia also suggest that excessive online gaming habit have potential to bring difficulties in social interaction and the development of social skills in real life. The studies emphasized that it is very important to create balance between online gaming activities and offline social interaction for healthy social skill development.

Based on the review, it showed that there is a significant relationship between online gaming usage and emotional intelligence development. Moreover, it was suggested that a high level of online gaming usage can cause addiction and many unhealthy behaviour. With this, this study aimed to measure the online gaming usage among IPTA students in Klang Valley, Malaysia and whether it has association with the emotional intelligence development of the students as indicated by the previous study.

Excessive online shopping usage and emotional intelligence (emotional self-regulation and social skills)

The rise of e-commerce has transformed the way people purchase, shifting away from traditional physical shops towards online platforms. With e-commerce's extensive accessibility and convenience, more people are adopting online purchasing habits. This move has resulted in various advantages, including increased productivity, a broader selection of products, and the ability to compare costs and study feedback prior to making a purchase (Dwivedi et al., 2019). These benefits have led to internet shopping's growing popularity.

According to the Department of Statistics Malaysia (DOSM), Selangor citizens had the largest consumer base for e-commerce services the previous years. The data came from a countrywide survey of eight million households in 2019. According to the report, 2.22 million households in Selangor made online purchases using e-commerce platforms in that year. In addition, according to the DOSM report, apparel and footwear were among the most purchased items by Malaysians via various online shopping websites and related platforms.

This scenario may be related to Ghose and Goldfarb's (2019) study, in which online retailers frequently provide competitive prices and special discounts or promotions. According to this, clients can use price comparison tools to effortlessly identify the greatest bargains accessible at their leisure, resulting in more online purchasing habits.

However, in addition to its advantages, online shopping has been linked to negative effects on social skills and emotional intelligence. The lack of interaction with others in online buying limits possibilities for social connections and affects the development of social skills (Bilgihan et al., 2015). The lack of direct human interaction impairs the ability to read and comprehend social signs, engage in nonverbal communication, and practice conflict resolution. As a result, people who over rely on online purchasing may struggle with face-to-face social interactions and have lower levels of emotional intelligence. Furthermore, reliance on online purchase platforms may contribute to a reduction in emotional intelligence due to less opportunities for emotion and empathy expression (Bian & Forsythe, 2012). Online shopping experiences lack the emotive aspects of inperson purchases, such as the ability to touch and feel items, interact with salespeople, and receive immediate feedback. Reduced emotional engagement may impair people's ability to understand and regulate their own emotions, as well as empathize with others (Bian & Forsythe, 2012).

In summary, there is a potential that an excessive online purchasing habit may impact individuals' ability to effectively navigate social situations and regulate their emotions. Therefore, this study will look up the online shopping usage trend among the respondents to see whether it is really associated with their emotional intelligence development.

Gender and emotional intelligence (emotional self-regulation and social skills)

A study indicated that males have a higher level of social skills compared to woman. This is because they have higher tendency to form groups of friends, than females, who value one-on-one relationships (Benenson et al., 2011). A one-on-one relationship is inherently more fragile compared to one that is part of a larger group that consists of members who are strongly committed to maintaining the larger group. On a daily basis, men tend to socialize more with their surroundings compared to women. According to Dury et al. (2021), women often prefer to be alone and task oriented. They are more likely to engage in household activities and in helping others. In contrast, men appear to be more engaged outside the home, such as with sports, socially oriented activities, and civic activities.

However, few studies in Malaysia discovered a different pattern in social skills level between genders. Tan and Chong (2017) examined social competence levels among Malaysian secondary school students and discovered that females demonstrating higher levels of communication abilities than males. This shows that females have more advanced verbal and nonverbal communication skills, which contribute to their overall social competency. Another study by Liew, Sidhu, and Tan (2019) investigated gender differences in social skills among Malaysian university students. The results of the research demonstrated that gender significantly influenced social skills, with females demonstrating better levels of social ability than males. However, the study also highlighted the impact of program of study, implying that gender differences in social skills may vary among fields of study.

On the other hand, Mulyati et al. (2020) has investigated emotional self-regulation among Malaysian adolescents. The findings suggested that gender differences exist in emotional self-regulation, with females exhibiting higher levels of emotional self-regulation compared to males. This suggests that females may possess greater abilities to identify, understand, and manage their emotions effectively. This statement was also support by Bytamar et al. (2020) in his study mentioning that gender significantly correlated with emotional self-regulation, with females exhibiting higher levels of emotional self-regulation than males. These findings indicate that females may have a better inclination to manage their emotions in an appropriate and effective manner.

Overall, the findings from these studies suggest that gender differences in social skills and emotional self-regulation exist among Malaysian students. However, it is crucial to consider the various nature of emotional intelligence development and the potential influence of other factors that may interact with gender in shaping social competence and emotional regulation. In relation to that, this study will look up to observe the differences between genders in terms of their social skills level and emotional self-regulation among the IPTA students in Klang Valley.

METHODOLOGY

The data for this paper was collected using a convenience and multistage sampling method to ensure that respondents follow the requirements of this study. The Klang Valley is renowned for its technological advancements and robust digital infrastructure. The region offers a wide range of digital technologies and platforms, making it an ideal setting to investigate the effects of digital technology usage on emotional intelligence among students. The residents of the Klang Valley are highly exposed to digital technologies due to their modern lifestyle and urbanization. Statista Research Department reported in 2020 that 42% of

respondents aged 16-24 in Malaysia engage in daily online gaming. Additionally, Meltwater (2023) stated that social media usage among Malaysian youth constitutes nearly a quarter of the total population, with 18 to 24 years old representing 22.2% of users, the second largest demographic in the country.

Therefore, this study focuses on IPTA students in the Klang Valley to explore how digital technology usage impacts the development of emotional intelligence. The target population for this research was undergraduate students in the public universities located in the Klang Valley, which is Selangor, Wilayah Persekutuan dan Putrajaya. These universities include Universiti Malaya (UM), Universiti Putra Malaysia (UPM), Universiti Kebangsaan Malaysia (UKM), Universiti Teknologi Malaysia (UTM), Universiti Teknologi Mara (UiTM), Universiti Islam Antarabangsa Malaysia (UIAM), Universiti Sains Islam Antarabangsa (USIM), and Universiti Pertahanan Nasional Malaysia (UPNM). According to Ministry of Higher Education (2021), the total population of undergraduate students in selected IPTA are 380,877.

In the first stage, the research focused on the Klang Valley, which was chosen as one of the five zones in Malaysia. The Klang Valley comprises three states, namely Selangor, Wilayah Persekutuan, and Putrajaya. In the second stage, eight public universities located in the Klang Valley were selected. These universities include Universiti Malaya, Universiti Putra Malaysia, Universiti Kebangsaan Malaysia, Universiti Teknologi Malaysia, Universiti Teknologi Mara, Universiti Islam Antarabangsa Malaysia, Universiti Sains Islam Antarabangsa, and Universiti Pertahanan Nasional Malaysia. Finally, the sample size of 400 undergraduate students was determined from the eight universities by using convenience sampling. By employing this multistage and convenience sampling approach, the research managed to obtain a diverse and representative sample of undergraduate students from each public university in the Klang Valley.

This study was employed a structured self-administered questionnaire through a survey method since it was an effective way for a researcher to measure the variables and interests. The questionnaires will be distributed through google form and it will be blast through social media platform such as through social media such as Discord, Facebook, Twitter, Instagram, and etc. The questionnaire, adapted from previous research and modified for this study, will be translated into both English and Malay to achieve the objective. The questionnaire consists of three sections (Section A, B and C) using the 5-points Likert scale as the response rate of the respondents ranging from "Strongly disagree" to "Strongly Agree". Section A is the students' demographics consists of only two question which are gender and year of study. Section B is Excessive Digital technologies usage consists of three sub-sections B1 (social media), B2(online gaming) and B3(online shopping). Social media usage was assessed with 7 items adapted from Ni et al. (2020). Online gaming was evaluated using 7 items from the Internet Gaming Disorder Scale (IGDS) by Pontes and Griffiths (2015). Online shopping was measured with 8 items from the Bergen Shopping Addiction Scale (BSAS) by Andreassen et al. (2015). Section C is Emotional intelligence development consists of two sub-sections C1 (Emotional self-regulation) and C2 (Social skills). Emotional self-regulation was measured with 8 items using the Difficulties in Emotion Regulation Scale (DERS) by Gratz and Roemer (2004) and Social skills was measured with 9 items by using the Social Skills Inventory (SSI) by Ridgio (1986). Descriptive statistics such as frequency and percentage were used to fulfil the determined objective. Correlation and multiple linear regression were employed to test the relationship between Excessive Digital technologies usage (social media usage, online gaming usage, online shopping usage) and Emotional intelligence development (emotional self-regulation and social skills) and to what extent age factor moderates the relationship between social support (friend, family, educator) on mental health.

RESULT & DISCUSSION

This study managed to gathered data from 398 respondents, with nearly 52.8% identifying as female and 47.0% as male. The sample also represented a diverse range of academic levels, with the majority being in their 1st year of study (36.3%), followed by 3rd year (32.3%), 2nd year (14.5%), 4th year (12.3%) and then

the remaining distributed to 4.3% of 5th year students. While not the focus of this study, these demographics provide initial context for interpreting the findings related to excessive digital technologies usage and emotional intelligence development.

Table 1: Demographics Profile (n=398)

Variables	Frequency	Percentage (%)
Gender		
Male	188	47
Female	210	52.8
Year Study		
1	145	36.3
2	58	14.5
3	129	32.3
4	49	12.3
5	17	4.3

Table 2 showed level of excessive digital technologies which consists of social media usage, online gaming and online shopping. From the analysis of social media usage, the results showed that the most of students (70.85%) had a high usage of social media while the rest were in category of moderate usage (28.89%) and low usage (0.25%) respectively. The mean for total digital technologies usage in social media usage score was 28.53 with the range score between 9-35. In terms of online gaming, nearly half (46.798%) fall into moderate usage category, indicating a regular but balanced engagement with gaming platforms. High usage closely follows, encompassing 43.47% of respondents, suggesting a significant portion dedicates substantial time to online gaming. Notably, only a small minority (9.5%) reported low usage, highlighting that most engage with gaming to some extent. The mean for total digital technologies usage in online gaming usage score was 23.5628 with the range score between 7-35. From the analysis of online shopping usage, a dominant 58.8% of respondents fall into moderate usage category, demonstrating a regular but measured approach to online purchases. High usage comes in second, occupying 35.7% of the sample, indicating a noticeable group who actively engages in online shopping. Similar to online gaming and social media, low usage remains a small minority (5.5%), suggesting that most participants partake in online shopping to some degree. The mean for total digital technologies usage in online shopping usage score was 26.8869 with the range score between 8-40.

Table 2: Level of excessive digital technologies usage (n=398)

Variables	Frequency	Percentage (%)	Mean	SD
Social media				
Low usage (<11)	1	0.25	28.53	5.94
Moderate usage (12-23)	115	28.89		
High usage (> 23)	282	70.85		
Online gaming				
Low usage (<11)	38	9.5	23.56	8.16
Moderate usage (12-23)	187	46.8		
High usage (> 23)	173	43.47		
Online shopping			26.89	7.77
Low usage (<13)	22	5.53		

Moderate usage (14-27)	234	58.79		
High usage (> 27)	142	35.68		

Table 3 showed the total scores for emotional intelligence development for subscale emotional self-regulation and social skills. From the analysis of emotional self-regulation score on 398 respondents, it was revealed that the largest portion of respondents (38.4%) were suffering from low emotional self-regulation. This suggests a notable portion of the sample may benefit from further development in effectively managing their emotions. It followed by 33.17% demonstrated high emotional self-regulation, showcasing strong emotional control and self-awareness. The smallest group falls within the moderate category (28.39%), indicating 113 students have an average ability to handle emotions. The mean for emotional intelligence development in emotional self- regulation score was 19.37 with the range score between 8-40. From the analysis of social skills score, largest portion of respondents (34.673%) have a high social skills level which demonstrates strong interpersonal abilities and effective communication skills. Moderate social skills followed closely with 133 students (33.417%), indicating an average level of social competence. Notably, low social skills level are the smallest category encompassing 127 students (31.91%), hinting at a more limited proficiency in interacting with others. The mean for emotional intelligence development in emotional self-regulation score was 35.60 with the range score between 9-45.

Table 3: Level of emotional intelligence development (n=398)

Variables	Frequency	Percentage (%)	Mean	SD
Emotional self-regulation				
Low (<13)	153	38.44	19.37	8.33
Moderate (14-27)	113	28.39		
High (> 27)	132	33.17		
Social skills				
Low (<14)	127	31.91	35.6	7.9
Moderate (15-28)	133	33.42		
High (> 28)	138	34.67		

Difference of emotional self-regulation and social skills between genders

Analysis of t-test on difference of emotional intelligence between female and male students was shown in Table 4. The analysis revealed that there was a significant different (p<0.01) in emotional self-regulation and social skills (t=16.54, t=-15.17 respectively) between male and female students. For emotional self-regulation, male students seem to possess a higher emotional self-regulation skill compared to female students with mean 25.06 and 14.26 respectively. It is the opposite way for social skills as female students demonstrate a higher social skills level compared to male students with mean 40.16 and 30.50 respectively. Analysis of female students scored higher social skills compared to male was supported by study of Stuijfzand et al. (2016). This research investigated the relationship between empathy and emotional reactivity in young adults. It showed that females scored higher on both empathy and emotional reactivity. These two components is crucial to navigate social situations through greater sensitivity to social cues and emotional states. Even though both past and current study recorded a significant different in gender, there was a contradictory in emotional self-regulation results. Current study discovered that even though females exhibited better social skills than males, they are prone to have lower emotional self-regulation than males. This can be supported by Russell and Anderson (2018) findings where it mentioned that females prone to perceive and respond more intensely to negative emotions and events, which lead to greater emotional reactivity to negative stimuli whereas males generally experience less physiological activity associated with stress, leading to better emotional regulation. Anyhow, as stated in literature review, differences in

emotional self-regulation between female and male may depends on the instruments and theoretical approaches that were used. Moreover, previous study that distinguish emotional self-regulation between genders are often mixed and confusing. This could be also intervened by numerous factors such as social expectations, cultural roles, individual experiences and personality traits (Taylor et.al, 2007).

Table 4: Emotional self-regulation difference among male and female (n=398)

Subscale of EI	Gender				t- value	p-value
	Male		Female			
	Mean	SD	Mean	SD		
Social skills	30.50	6.01	40.16	6.63	15.172	<0.001
Emotional self-regulation	25.06	7.40	14.29	5.28	16.541	<0.001

Note: level of significant is at p<0.01

The relationship between social media usage, online gaming usage, online shopping usage, social skills and self-regulation

Results of Pearson Correlation were shown in Table 5. As recorded, excessive digital technologies usage for all 3 types of technology (social media, online game, and online shopping) had a positive correlation with emotional intelligent subscale (social skills). Excessive social media usage and online gaming usage recorded a quite high value of r (0.823 and 0.783 respectively) which mean both variables had a strong positive relationship with social skills. This means that increased use of social media and online gaming enhances social interactions, communication, teamwork, and social confidence, improving overall social skills through regular and diverse interactions. Previous literature stated that increased accessed to social networks can provide more opportunities for connection and communication, especially for individual facing social anxieties and geographical isolation. In addition, there a lot of online communities dedicated to hobbies, games, interests, or support groups that provide opportunities for collaboration, sharing, and social interactions while building the sense of belonging (Winstone et al., 2021). Besides that, online gaming usage (OGU) is highly correlated with social media usage (SMU), with a correlation coefficient (r value) of 0.791. This indicates a strong positive relationship between the two activities. The results explain that individuals who engage more in online gaming also tend to use social media frequently, possibly due to overlapping interests and shared social interaction opportunities. LR. The high correlation (r = 0.784) between online shopping usage (OSU) and online gaming usage (OGU) indicates a strong positive relationship. This suggests that individuals who frequently engage in online gaming are also likely to spend a significant amount of time shopping online. The reasons is gamers, often tech-savvy may engage in online shopping due to in-game purchases, promotional influences, convenience, disposable income, and exposure to related products through gaming communities. Online shopping usage (OSU) and social media usage (SMU) show a moderate correlation (r = 0.664), indicating that individuals who frequently shop online also tend to use social media regularly. This connection reflects how digital habits intertwine, influencing how people engage with online platforms for both shopping and socializing purposes in their daily lives. The moderate positive correlation (r = 0.614) between online shopping usage (OSU) and social skills (SS) means that people who shop online more often tend to have better social skills. This could be because shopping online involves interacting with others digitally and adapting to different products and information. These experiences might contribute to improved communication and confidence in social situations, showing how online activities can influence how well people interact in real-life social settings. LR. Table 6 recorded, excessive digital technologies usage for all 3 types of technology (social media, online game, and online shopping). The results showed had a negative correlation with emotional intelligent subscale emotional self-regulation (ESR). Excessive social media usage and online gaming usage recorded a quite high value of r -0.866 and- 0.875 respectively which mean both variables had a strong negative relationship with emotional

self-regulation. Excessive use can lead to emotional overload, stress, and sleep disruption. Instant gratification from these platforms may reduce patience, while less face-to-face interaction and constant comparisons can hinder emotional control, resulting in poorer self-regulation skills. LR. On the other hand, there is a moderate negative correlation ($r= -0.688$) between online shopping usage (OSU) and emotional self-regulation (ESR). That indicates that people who always online shopping increases, emotional self-regulation decreases. This could be due to impulsive buying, stress from financial concerns, and reduced ability to manage emotions effectively.

Multiple Linear Regression

Table 7 summarizes the result of the Multiple Linear Regression between the social media usage (SMU), online gaming usage (OGU), online shopping usage (OSU) and social skills (SS). Multiple Linear Regressions were used in this study to predict the dependent variable social skills (SS) from the set of independent variables social media usage (SMU), online gaming usage (OGU), online shopping usage (OSU). As highlighted in Table 7, multiple linear regression analysis was applied using the "enter" method to evaluate the influence of social media usage (SMU), online gaming usage (OGU), and online shopping usage (OSU) towards social skills (SS). The results showed that about 72.5% variance in social skills (SS) was explained by all the predictor variables entered into the regression model. The regression equation predicting social skills (SS) is: Social Skills (SS) = 6.277+ (0.574) Social Media Usage (SMU) + (0.302) Online Gaming Usage (OGU) + (-0.058) Online Shopping Usage (OSU). A significant regression was found between Social Media Usage (SMU) ($\beta = 0.574$, $p< 0.05$), Online Gaming Usage (OGU) ($\beta= 0.302$, $p< 0.05$) and Social Skills (SS) among undergraduate IPTA students in Klang Valley area. However, there is no significant difference between online shopping usage (OSU) ($\beta= -0.058$, $p> 0.05$) and social skills (SS) among undergraduate IPTA students in Klang Valley area. Table 8 summarizes the result of the Multiple Linear Regression between the social media usage (SMU), online gaming usage (OGU), online shopping usage (OSU) and emotional self-regulation (ESR). Multiple Linear Regressions were used in this study to predict the dependent variable emotional self-regulation (ESR) from the set of independent variables social media usage (SMU), online gaming usage (OGU), online shopping usage (OSU). Multiple linear regression analysis was applied using the "enter" method to evaluate the influence of social media usage (SMU), online gaming usage (OGU), and online shopping usage (OSU) towards emotional self-regulation (ESR). The results showed that about 84.7% variance in emotional self-regulation (ESR) was explained by all the predictor variables entered into the regression model. The regression equation predicting emotional self-regulation (ESR) is: Emotional Self-Regulation (ESR) = 6.277+ (-0.574) Social Media Usage (SMU) + (-0.482) Online Gaming Usage (OGU) + (0.052) Online Shopping Usage (OSU). A significant regression was found between Social Media Usage (SMU) ($\beta = -0.579$, $p< 0.01$), Online Gaming Usage (OGU) ($\beta= -0.482$, $p< 0.01$) and Emotional Self-Regulation (ESR) among undergraduate IPTA students in Klang Valley area. However, there is no significant difference between Online Shopping Usage (OSU) ($\beta= 0.052$, $p> 0.01$) and Emotional Self-Regulation (ESR) among undergraduate IPTA students in Klang Valley area.

Table 7: Multiple Linear Regression Analysis (Social skill)

Dimension	Beta (Unstandardized Coefficients)	Std. Error	Beta (Standardized Coefficients)	t-value	p-value
Social media usage (SMU)	0.574	0.045	0.550	12.66	<.001
Online gaming usage (OGU)	0.302	0.040	0.389	7.601	<.001
Online shopping usage (OSU)	-0.058	0.040	0.063	-1.48	0.140

Notes: R=0.852, R² =0.725, Adj. R²=0.723, p=0.05

Table 8: Multiple Linear Regression Analysis (Emotional self-regulation)

Dimension	Beta (Unstandardized Coefficients)	Std. Error	Beta (Standardized Coefficients)	t-value	p-value
Social media usage (SMU)	-0.579	0.040	-0.471	-14.549	<0.001
Online gaming usage (OGU)	-0.482	0.035	-0.539	-13.830	<0.001
Online shopping usage (OSU)	0.052	0.035	0.048	1.504	0.133

Notes: R=0.921, R² =0.847, Adj. R²=0.846, p=0.05

LIMITATION

It is important to note that this study has limitations to uncover the factors that influence the emotional intelligent development among students. This study is limited to a few factors such as social media usage, online gaming usage and online shopping usage. These factors were chosen because they are very close to young people's routine and lifestyle in this era and might potentially affect people's behavior and wellbeing depending on how they are utilized. However, this study may not be able to account for all external factors that could influence emotional intelligence development especially in terms of social skill and emotional self-regulation. There may be other variables, such as personal experiences, family background, education system etc. that could impact those aspects of emotional intelligence independently of digital technology usage. The educational environment and curriculum in IPTAs may have an impact on the participants' digital technology usage patterns and emotional intelligence development. Factors such as academic workload, teaching methods, and extracurricular activities can influence how students engage with digital technologies and how they develop their social skills and emotional regulation. Moreover, the role of family and peers cannot be overlooked in the development of emotional intelligence. Family dynamics, parenting styles, and peer relationships can significantly impact how students use digital technologies and develop their social skills and emotional self-regulation.

These influences may extend beyond the university setting and should be considered when analyzing the research findings. Apart from that, the respondents for this study are among the university undergraduate students, which made the age is limited in this study. Besides, the study may also have a limited sample size, which could affect the generalizability of the findings. It is important to acknowledge that the results may only represent the specific population of IPTA students in the Klang Valley. Moreover, they might have potential for self-reporting bias. The questionnaire for this study is self-administered so the accuracy and reliability of the gathered data depends on the respondent's honesty. The data collected for the study may rely on self-reporting by participants, which could introduce response bias and inaccuracies in reporting their digital technology usage and emotional intelligence. Participants may underreport or over report their behaviors, leading to potential limitations in the data collected.

REFERENCES

1. Akram, W., & Kumar, R. (2017). A study on positive and negative effects of social media on society. *International Journal of Computer Sciences and Engineering*, 5(10), 351–354. https://doi.org/10.26438/ijcse/v5i10.351354

2. Andreassen, C. S., Griffiths, M. D., Pallesen, S., Bilder, R. M., Torsheim, T., & Aboujaoude, E. (2015). The bergen shopping addiction scale: reliability and validity of a brief screening test. *Frontiers in Psychology*, 6. https://doi.org/10.3389/fpsyg.2015.01374

3. Ashaye, O. R., Mahmoud, A. B., Munna, A. S., & Ali, N. (2023). The role of social media engagement and emotional intelligence in successful employment. *Higher Education, Skills and Work-Based Learning*, 13(2), 315-337.

4. Bakar, N. A., & Hussain, H. (2020). The impact of online gaming on Malaysian students' social Skills. *Malaysian Journal of Society and Space, 16*(3), 195- 205.

5. Benenson, J. F., Markovits, H., Thompson, M. E., & Wrangham, R. W. (2011). Under threat of social exclusion, females exclude more than males. *Psychological Science*, *22*(4), 538– 544. https://doi.org/10.1177/0956797611402511

6. Bian, Q., & Forsythe, S. (2012). Purchase intention for luxury brands: A cross cultural comparison. *Journal of Business Research*, 65(10), 1443– 1451. https://doi.org/10.1016/j.jbusres.2011.10.010

7. Bytamar, J. M., Saed, O., & Khakpoor, S. (2020). Emotion regulation difficulties and academic procrastination. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.524588

8. Chandel, P. K., & Gupta, N. (2018). The impact of time spent on social media on emotional intelligence of adoloscents. *Research Gate*. https://doi.org/10.1729/Journal.18427

9. Chen, T. C. (2014). Online games. *Computers in Entertainment, 12*(1), 1–26. https://doi.org/10.1145/2582193.2633445

10. Chong, A. M., Lee, P. L., Roslan, S., & Baba, M. (2015). Emotional intelligence and at- risk students. *SAGE Open, 5*(1), 215824401456476. https://doi.org/10.1177/2158244014564768

11. Choudhury, J. (2021). Emotional Intelligence, Socio-emotional competence and human capital. *Ra Journal of Applied Research*, *7*(4), 2932-2938.

12. Cole, H., & Griffiths, M. D. (2007). Social interactions in massively multiplayer online role-playing gamers. *Cyberpsychology & Behavior*, *10*(4), 575 – 583. https://doi.org/10.1089/cpb.2007.9988

13. Dury, S., Stas, L., Switsers, L., Duppen, D., Domènech-Abella, J., Dierckx, E., & De Donder, L. (2021). Gender-related differences in the relationship between social and activity participation and health and subjective well-being in later life. *Social Science & Medicine*, *270*, 113668. https://doi.org/10.1016/j.socscimed.2020.113668

14. Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re- examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers, 21*(3), 719-734. doi: 10.1007/s10796-017-9814-7

15. Elliott, S. N., & Gresham, F. M. (2013). *Social Skills Improvement System. Springer Books* https://doi.org/10.1007/978-1- 4419-1698- 3_509

16. Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment, 26*, 41-54.

17. Gresham, F. M., Elliott, S. N., Vance, M. A., & Cook, C. R. (2011). Comparability of the social skills rating system to the social skills improvement system: content and psychometric comparisons across elementary and secondary age levels. *School Psychology Quarterly*, *26*(1), 27–44. https://doi.org/10.1037/a0022662

18. Gross, J. J. (2015). Emotion regulation: current status and future prospects. *Psychological Inquiry, 26* (1), 1–26. https://doi.org/10.1080/1047840x.2014.940781

19. Hazar, Z., & Hazar, M. (2018). Effect of games including physical activity on digital game addiction of 11-14 age group middle-school students. *Journal of Education and Training Studies, 6*(11), 243-253. DOI: 10.11114/jets.v6i11.3645

20. Hjelpdahl, A. B. (2020). Online gaming: a successful life? the influence of gaming on development. https://doi.org/10.13140/RG.2.2.34362.41922

21. Kamal, N. L. M., & Wok, S. (2020). The impact of online gaming addiction on mental health among iium students. *International Journal of Heritage, Art and Multimedia, 3*(11), 01–20. https://doi.org/10.35631/ijham.311001

22. Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59–68. https://doi.org/10.1016/j.bushor.2009.09.003

23. Kaur, M., Maheshwari, S., & Kumar, A. (2019). Compulsive buying behavior and online shopping addiction among health science teachers. *International Journal of Nursing Care*, *7*(1), 74. https://doi.org/10.5958/2320-8651.2019.00014.0

24. Keles, B. Y., McCrae, N., & Grealish, A. (2019). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. International *Journal of Adolescence and Youth, 25*(1), 79–93. https://doi.org/10.1080/02673843.2019.1590851

25. Kemp, S. (2022). Digital 2022: Malaysia — DataReportal – Global Digital Insights. *DataReportal – Global Digital Insights*. https://datareportal.com/reports/digital-2022-malaysia

26. Khan, N. M., Khan, A. R., & Moin, M. (2021). Self-regulation and social media addiction: A multi-wave data analysis in China. *Technology in Society, 64*, 101527. https://doi.org/10.1016/j.techsoc.2021.101527

27. Kiang, M. Y., Raghu, T. S., & Shang, K. H. M. (2000). Marketing on the Internet— who can benefit from an online marketing approach? *Decision Support Systems*, 27(4), 383-393. https://doi.org/10.1016/S0167- 9236(99)00056-2

28. Kuss, D. J., & Griffiths, M. D. (2017). Social networking sites and addiction: Ten lessons learned. *International Journal of Environmental Research and Public Health*, *14*(3), 311.

29. Liew, Y. H., Sidhu, J. S., & Tan, K. A. (2019). Gender differences and program of study as predictors of social skills among Malaysian university students. *Pertanika Journal of Social Sciences and Humanities, 27*(3), 1743-1758.

30. Lim, H. Y., Lee, K., & Cohen, D. (2015). Self-esteem and social skills among Malaysian adolescents: A gender-specific mediation model. *Journal of Adolescence*, 43, 106-117.

31. MacCann, C., Jiang, Y., Brown, L. E., Double, K. S., Bucich, M., & Minbashian, A. (2020). Emotional intelligence predicts academic performance: A meta-analysis. *Psychological Bulletin*, *146* (2), 150.

32. Makwana, A. P., Dhont, K., García-Sancho, E., & Fernández-Berrocal, P. (2021). Are emotionally intelligent people less prejudiced? The importance of emotion management skills for outgroup attitudes. *Journal of Applied Social Psychology*, *51*(8), 779-792.

33. Mohd Salleh, N., Sulaiman, N., & Ismail, N. (2018). Social interaction in massively multiplayer online role-playing games (MMORPGs): A study among Malaysian gamers. *Pertanika Journal of Social Sciences and Humanities, 26*(2), 949-962.

34. Mulyati, H., LN, S. Y., & Supriatna, M. (2020). Emotion regulation in adolescents. In*International Conference on Educational Psychology and Pedagogy-" Diversity in Education"(ICEPP 2019)* Atlantis Press.

35. Neala, P. (2020). Emotional intelligence: Why we need it now, more than ever. Forbes. Retrieved from https://www.forbes.com/sites/forbescoachescouncil/2020/12/01/emotionalintelligence-why-we-need-it-now-more-than-ever/?sh=785890473df3

36. Neumann, A., van Lier, P. A., Gratz, K. L., & Koot, H. M. (2010). Multidimensional assessment of emotion regulation difficulties in adolescents using the difficulties in emotion regulation scale. *Assessment*, *17*(1), 138-149.

37. Ni, X., Shao, X., Geng, Y., Qu, R., Niu, G., & Wang, Y. (2020). Development of the social media engagement scale for adolescents. *Frontiers in Psychology, 11*. https://doi.org/10.3389/fpsyg.2020.00701

38. Pontes, H. M., & Griffiths, M. D. (2015). Measuring DSM-5 internet gaming disorder: Development and validation of a short psychometric scale. *Computers in Human Behavior,* 45, 137–143. https://doi.org/10.1016/j.chb.2014.12.006

39. Primack, B. A., Shensa, A., Sidani, J. E., Whaite, E. O., Lin, L., Rosen, D. G., Colditz, J. B., Radovic, A., & Miller, E. (2017). Social media use and perceived social isolation among young adults in the U.S. *American Journal of Preventive Medicine*, *53*(1), 1– 8. https://doi.org/10.1016/j.amepre.2017.01.010

40. Ratan, R., Taylor, N., Hogan, J., & Kennedy, T. L. M. (2015). *Emotions and gaming: The intersection of game mechanics and emotional experiences*. Springer.

41. Riggio, R. E. (1986). Assessment of basic social skills. *Journal of Personality and social Psychology, 51*(3), 649.

42. Riggio, R. E. (2014). The Social Skills Inventory (SSI): measuring nonverbal and social skills. *The Sourcebook of Nonverbal Measures*, 25-33.

43. Russell, A., & Anderson, S. F. (2018). The relationship between self-regulatory strategies, daily stress, and negative affect in college females: An analysis of typical levels and intraindividual variability. *Emerging Adulthood, 7*(5), 319– 330. https://doi.org/10.1177/2167696818775149

44. Samat, M. (2018). A review on social media usage among students. *Conference Paper at Universiti Teknologi Mara Cawangan Kelantan*.

45. Şimşek, H. (2023). The effect of smartphone addiction on attention level in high school students. *Journal of Dependence, Dergisi 24*(2), 113–122. https://doi.org/10.51982/bagimli.1118921

46. *Social media use can be positive for mental health and well-being*. (2020). Retrieved from https://www.hsph.harvard.edu/news/features/social-media-positivemental- health/

47. Stuijfzand, S., De Wied, M., Kempes, M., Van Der Graaff, J., Branje, S., & Meeus, W. (2016). Gender differences in empathic sadness towards persons of the sameversus other-sex during adolescence. *Sex Roles, 75*(9–10), 434–446. https://doi.org/10.1007/s11199-016-0649-3

48. Tan, M. C., & Chong, S. Y. (2017). Social skills level among secondary school students in Malaysia. *Man in India, 97*(20), 281-294.

49. Tangney, J. P., Boone, A. L., & Baumeister, R. F. (2018). *High self-control predicts good adjustment, less pathology, better grades, and interpersonal success*. *Routledge eBooks*

50. Taylor, S. E., Welch, W. T., Kim, H. S., & Sherman, D. K. (2007). Cultural differences in the impact of social support on psychological and biological stress responses. *Psychological science, 18*(9), 831-837.

51. Winstone, L., Mars, B., Haworth, C. M. A., & Kidger, J. (2021). Social media use and social connectedness among adolescents in the United Kingdom: a qualitative exploration of displacement and stimulation. *BMC Public Health, 21*(1). https://doi.org/10.1186/s12889-021-11802-9

52. Wong, H. Y., Mo, H. L. S., Potenza, M. N., Chan, M. N. M., Lau, W., Chui, T. Y., Pakpour, A. H., & Pakpour, A. H. (2020). Relationships between severity of internet gaming disorder, severity of problematic social media use, sleep quality and psychological distress. *International Journal of Environmental Research and Public Health*, *17*(6), 1879. https://doi.org/10.3390/ijerph17061879