Exploring problematic internet use tendency among emerging adults: An overview

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Abstract

Purpose: The internet plays a vital role in the daily lives of emerging adults, but it also brings potential negative consequences like problematic internet use (PIU), particularly in this age group. Developmental task from this age group could be one of the stressors which could lead individual to obtain a maladaptive use of internet. Further, PIU can also bring detrimental effect and pathological mental disorder. Despite its importance, PIU among emerging adults has not been extensively studied. This study seeks to investigate the tendency towards problematic internet use among emerging adults, considering their exploratory phase where internet use is prevalent.

Method: This study used a cross-sectional design with survey data collection. 104 participants, women and men aged 18-29 years old (M = 19.9; SD =1.88) were collected in this study. Participants completed the demographic scale and the Generalized Problematic Internet Use-2 scale (GPIUS-2). Data were analyzed using the descriptive statistical technique with Jamovi statistical software.

Result: Overall, most participants spend at least 5 hours on their internet usage per day (77.88%) while the rest spend 3 to 5 hours on the internet (22.12%). Interestingly, a higher tendency of problematic internet use was found in men (M = 47.8; SD =8.18) than women (M = 44.7; SD =9.52). Furthermore, men were also higher than women in all dimensions of PIU except in mood regulation, albeit the differences were negligible.

Conclusion: This study provides theoretical enrichment of the exploration of problematic internet use specifically among emerging adults. Further, the results of this study could be clinically useful for designing interventions related to social media use behavior.

Keywords: emerging adults; internet; problematic use

INTRODUCTION

The internet has become an inseparable part of human life, where it provides ease of communication, access to information, and various sources of entertainment. Currently, there are more than 5 million internet users worldwide or 66.2% of the world's population (Statista, 2024). In Indonesia, internet users have reached more than 221 million people with an internet penetration rate of 79.5% (APJII, 2024). More specifically, individuals aged 18 to 24 years old are the age group that uses the internet the most compared to other age stages (Pew Research Center, 2024).

Emerging adults are identified as the developmental stage of individuals aged 18 to 29 years (Arnett, 2014). This stage is an exploratory phase for individuals to figure out what they want in life, where they are transitioning from adolescence to early adulthood. Therefore, the use of the internet is essential for them to succeed through this developmental stage (Ardelia & Jaro'ah, 2023).

Aside from the benefits provided by the internet, there are certainly negative impacts that arise from internet use, one of which is problematic internet use (PIU). Until now, the concept of PIU definition has often been identified as internet addiction, which in fact PIU and internet addiction are two different concepts (Andangsari & Fitri, 2014). Internet addiction itself is defined as a pathological disorder of internet use with excessive duration, difficulty controlling use and feelings of anxiety-depression-erratic mood when offline (Young, 2004).

Interestingly, Davis (2001) promoted a non-pathological perspective in viewing problematic internet use using a cognitive-behavioral approach. Based on this perspective, PIU is perceived as a tendency of maladaptive behavior and cognition of individuals in using the internet that has a negative impact on various aspects of life such as academic, work, and social (Caplan, 2010). Furthermore, from this definition, Caplan (2003) brings several characteristics of PIU, including individuals who suffer from psychosocial problems such as depression and loneliness, individuals tend to have more frequent online social interactions as an alternative to face-to-face communication because they are considered less threatening, their desire to always interact online makes the individual have excessive and compulsive internet social interaction problems that have an impact on other areas of their life.

With the high rate of internet use, especially in emerging adults, this makes this developmental group more vulnerable to experiencing PIU. Individuals at the emerging adult developmental stage have the task of becoming more independent and responsible for their own lives, whether it is becoming a student, becoming an employee in a job, and others. This developmental task has the potential to become a stressor for emerging adults, which then implies problematic internet use. A study shows that the prevalence of PIU occurrence in the emerging adult group reaches 40% (Pezoa-Jares, 2012; Sussman et al., 2011). To date, research exploring PIU in the context of emerging adults has been lacking. Therefore, this study seeks to conduct an initial exploration of the tendency of PIU in emerging adults. The formulation of the problem in this study is "How is the descriptive picture of PIU tendencies in emerging adults?".

METHOD

Study Design
This study used quantitative research with a cross-sectional survey data collection. Data was collected using an online questionnaire (Microsoft Forms). Prior to filling out the questionnaire, participants were asked to provide consent to participate in the survey.

Participants
The current study used a purposive sampling technique to collect research participants based on the inclusion criteria namely men or women emerging adults (aged 18-25 years old) and actively using internet daily. Before collecting data, the researcher calculated the sample size needed for this study. According to the G*Power calculation formula, to get a power of 0.8 and a moderate effect size, at least 85 participants are needed in this study. Before taking part in this study as respondents, participants had provided informed consent.

Measurements
There were two measurements used in this study. The first measurements were the socio-demographic scale which contains participants personal information such as name (can be initials), age, sex, and internet usage duration per day. The second measurements were the

Generalized Problematic Internet Use-2 scale (GPIUS-2) which was developed by Caplan (Caplan, 2010). This scale consisted of 15 items which comprised in five dimensions namely preference for online social interaction with sample of item "I prefer online social interaction over face-to-face communication.", mood regulation with sample of item "I have used the Internet to talk with others when I was feeling isolated.", cognitive preoccupation with sample of item "When I haven't been online for some time, I become preoccupied with the thought of going online", compulsive internet use with sample of item "I have difficulty controlling the amount of time I spend online.", and negative outcomes with sample of item "My internet use has made it difficult for me to manage my life.". Items in this scale were rated using a Likert-type scale with five alternative responses from strongly disagree to strongly agree. A higher score on this scale indicates a higher tendency of problematic internet usage. The GPIUS-2 showed a satisfactory overall reliability index ($\alpha = 0.91$). The findings also show that the GPIUS2 not only has good face validity but also demonstrates sufficient construct validity (Caplan, 2010).

Data Analysis
Data were analyzed using the descriptive statistics technique with the help of the Jamovi program for macOS version 2.3 (Navarro & Foxcroft, 2018).

RESULT

Demographic Characteristics
Participants' characteristics in this study were provided in Table 1. There were 104 participants who met the inclusion criteria (N = 104) which were mostly women (N = 79) and the rest were men (N = 25) with the average age of 18-29 years old (M = 19.9; SD =1.88). For duration of internet usage, none of the participants were using the internet for less than 3 hours a day, with most of them claiming to use the internet for more than 5 hours a day (77.81%) and the rest were using the internet for 3-5 hours (22.12%). Moreover, men showed a higher average score (M = 47.8; SD = 8.18) in problematic internet use compared to women (M = 44.7; SD = 9.52).

Table 1
Demographic Characteristics

Demographics	N	Percentage
Age: 18-29 years old, overall mean: 19.9	104	100
Sex		
Male	25	24.04
Female	79	75.96

Preference for Online Social Interaction
Results on each dimension of PIU can be seen on Table 2. Overall, participants had a medium average preference for online social interaction. More specifically, it was found that men significantly had a higher preference (M = 8.68; SD = 2.82) compared to women (M = 7.18; SD = 2.98) for online social interaction (t(102) = 2.22, $p < 0.05$). Preference for online social interaction refers to a person's tendency to communicate or interact with others online compared to face-to-face. This subscale also showed a satisfactory reliability ($\alpha = 0.908$).

Table 2
Problematic Internet Use Results

Aspects	Male		Female	
	M	SD	M	SD
POSI	8.68	2.82	7.18	2.98
MR	11.64	2.25	11.65	1.89
CP	9.16	2.30	8.63	3.21
CIU	9.84	2.48	9.53	2.81
NO	8.44	2.43	7.76	2.91

Notes: POSI = Preference for Online Social Interaction; MR = Mood Regulation; CP = Cognitive Preoccupation; CIU = Compulsive Internet Use; NO = Negative Outcomes

Mood Regulation

In the mood regulation dimension, it is known that women have a higher tendency of mood regulation (M = 11.65; SD = 1.89) compared to men (M = 11.64; 2.25), although the difference is insignificant ($t(102) = -0.01$; $p = 0.99$). This result means that in using the internet, women and men have almost the same emotion regulation. This subscale also showed a moderate reliability index ($\alpha = 0.559$).

Cognitive Preoccupation

In this dimension, it is known that men have a higher tendency of cognitive preoccupation (M = 9.16; SD = 2.30) compared to women (M = 8.63; SD = 3.21), although the differences are negligible ($t(102) = 0.76$, $p = 0.45$). Cognitive preoccupation here refers to an obsessive mindset about internet use (Caplan, 2010). This subscale showed a satisfactory reliability index ($\alpha = 0.807$).

Compulsive Internet Use

Men were found to have a higher tendency of compulsive internet use (M = 9.84; SD = 2.48) compared to women (M = 9.53; SD = 2.81), albeit no significant differences were found ($t(102) = 0.49$, $p = 0.62$). Compulsive internet use can be defined as excessive internet use that is difficult to control so that it interferes with an individual's daily routine (Caplan, 2010). This subscale showed an adequate reliability index ($\alpha = 0.756$).

Negative Outcomes

In this aspect, it was found that men had a higher average negative outcomes score (M = 8.44; SD = 2.43) compared to women (M = 7.76; SD = 2.91), although the differences are negligible ($t(102) = 1.06$, $p = 0.29$). Nevertheless, this subscale showed a good reliability index ($\alpha = 0.757$).

DISCUSSION

This study aims to explore the tendency of problematic internet use in emerging adults. In general, it was found that men have a higher tendency of problematic internet use compared to women. This is in line with the results of a study by Ha and Hwang (2014) which found that men have a higher tendency of internet addiction compared to women.

Specifically, men were found to have a higher preference for online social interaction (POSI) tendency than women. Caplan (2010) explains that individuals who are lonely, socially anxious, or have low social skills tend to be prone to adopting POSI. This is because through the internet,

they do not feel threatened in socializing, and they can form the identity they want online (Ardi & Maison, 2014). In addition, men are also often associated with problematic internet use and tendency to anxiety, social problems, and somatic complaints (Winds et al., 2024).

Interesting results were also found that women have a higher tendency of mood regulation compared to men in internet use. This is an interesting result because women are often associated with low mood regulation compared to men (McRae et al., 2008). However, this result is also in line with other findings that higher PIU tendencies in men are also accompanied by lower mood regulation (Frangos et al., 2010; Schimmenti et al., 2021). As described by Caplan (2010), individuals who experience PIU will usually have deficient self-regulation and also difficulty regulating mood.

Men were also found to have higher cognitive preoccupation compared to women, which means that men tend to have an obsessive mindset on internet use (Caplan, 2010). Similar to the aspect of compulsive internet use, men have a higher average score compared to women. This contradicts the results found by Germani et al. (2023) that women have a higher tendency of compulsive internet use than women.

From a gender perspective, problematic internet use must be interpreted carefully because the variety of internet use used varies between genders. Men tend to use the internet mostly for online gaming and browsing web pages, while women use the internet mostly for chatting and accessing social networking sites (Fernández et al., 2015). Broadly speaking, the results of this study support prior studies that found men have a higher tendency to develop problematic internet use compared to women (Fernández et al., 2015; Schimmenti et al., 2021). Moreover, especially for the age group of emerging adults, who at this stage emphasize exploring their lives to find interests and build interpersonal relationships with others, so that emotional attachment to the internet is common for this age group (Ardelia & Jaro'ah, 2023). However, individuals who experience difficulties in completing their developmental tasks will potentially develop maladaptive behaviors that lead to problematic internet use. For example, individuals who have low self-esteem will have a higher tendency to experience problematic internet use. This is because individuals feel more comfortable communicating online rather than face-to-face, because it does not have the potential to harm their low self-esteem.

This study had strengths and weaknesses. The strengths of this study were the large number of participants and representation between male and female gender. Meanwhile, the weakness of this study was that data were collected using an online questionnaire which was solely based on self-reported data. Future research is expected to explore the concept of PIU using qualitative methods to get deeper information about the dynamics of PIU based on gender among emerging adults. In addition, this study also did not link the concept of problematic internet use with other concepts so that future research can examine the concept of PIU with possible risk or protective factors that could affect the occurrence of PIU.

CONCLUSION

This study found that most participants used the internet for a quite long duration per day. Furthermore, males have a higher tendency for problematic internet use compared to females. This descriptive study provides an initial picture of how the tendency of internet use, especially

in emerging adults, might lead to maladaptive behavior such as problematic internet use. The results of this study can also be a reference for making policies or interventions related to adaptive internet use, especially for emerging adults based on gender.

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