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Internet Addiction Among Male Adolescents in Indonesia: A Qualitative Study

Windy Rakhmawati[1], Cecep Eli Kosasih[2], Restuning Widiasih[3], Suryani Suryani[4], and Hidayat Arifin[5]

Abstract

Internet has become an important part of the daily life of adolescents. Easy access to internet and its social appeal among adolescent males render them at an increased risk of internet addiction and the associated adverse physical and psychosocial effects. We conducted a qualitative study using a phenomenological approach. A purposive sample of nine male adolescents was recruited in West Java, Indonesia. Semistructured interviews were conducted until data saturation was achieved. Data were subjected to thematic analysis. We identified four main themes from the experiences of adolescents with internet addition: reasons for internet addiction, unmet social need without the internet, effects of internet addiction, and self-control over internet usage. Internet addiction among male adolescents is a major public health problem that should be addressed. The findings of this study may be useful for health professionals and families to help male adolescents manage their internet addiction.

Keywords

adolescents, internet addiction, male, qualitative, phenomenology, Indonesian

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Introduction

Recent years have witnessed a dramatic increase in the use of internet across the world. In particular, internet has become an important part of the daily life of adolescents (Ballarotto et al., 2018). Globally, Indonesia ranks fourth in terms of the number of internet users (approximately 64.8%). Adolescents account for the highest proportion of internet users in Indonesia (Indonesia, 2018; Stats, 2020). Studies have documented a growing phenomenon of excessive internet use and internet addiction (IA) among adolescents, including online gaming (Shek & Yu, 2016). A previous study in Aligarh showed that male adolescents are more liable to IA compared to female adolescents (Arthanari et al., 2017). A study conducted in China found high prevalence of IA among adolescents, which adversely affected their well-being (decreased self-esteem, life satisfaction, and increased depression; Wang et al., 2013). IA has been shown to affect physical and psychosocial well-being by inducing mental distress, impairing academic performance, and affecting family relationships (Al-Gamal et al., 2016; Clark et al., 2004; Kusnanto et al., 2020; Tsitsika et al., 2011)

Adolescence is a period of development marked by significant biological, cognitive, psychosocial, emotional, and personal relationship changes (National Academies of Sciences, 2019). Male adolescents are

[1]Department of Pediatric Nursing, Faculty of Nursing, Universitas Padjadjaran, Bandung, West Java, Indonesia
[2]Department of Critical Nursing, Faculty of Nursing, Universitas Padjadjaran, Bandung, West Java, Indonesia
[3]Department of Maternity Nursing, Faculty of Nursing, Universitas Padjadjaran, Bandung, West Java, Indonesia
[4]Department of Mental Health Nursing, Faculty of Nursing, Universitas Padjadjaran, Bandung, West Java, Indonesia
[5]Department of Medical Surgical Nursing, Faculty of Nursing, Universitas Padjadjaran, Bandung, West Java, Indonesia

Corresponding Author:
Windy Rakhmawati, Faculty of Nursing, Universitas Padjadjaran, Jl. Raya Bandung-Sumedang Km.21 Jatinangor, Bandung, West Java 45363, Indonesia.
Email: windy.rakhmawati@unpad.ac.id

strongly attracted to the internet, which is easily accessible and offers unlimited access to information and connection with others worldwide (Kurniasanti et al., 2019). Adolescence is the stage of development wherein individuals try to express their identity, which can cause emotional crisis as well as trigger interpersonal and social conflict. However, male adolescents tend to distract themselves from negative thoughts by overusing the internet as a coping mechanism (Karacic & Oreskovic, 2017; Rębisz & Sikora, 2018; Santrock, 2011).

Many parents are unaware of the effects of IA among adolescents (Wu et al., 2016). Owing to the lack of knowledge, parents may inadvertently promote excessive online activities (such as online gaming) by the children; in addition, lack of parental attention and interaction may also act as aggravating factors in promoting IA (Drayton et al., 2014; Schneider et al., 2017). Moreover, family conflict also causes adolescents to seek diversion to the internet, which can lead to addiction (Schneider et al., 2017). However, there is still much that needs to be known and explored about IA among male adolescents. In addition, better characterization of IA among adolescents can help inform interventions aimed at prevention and management of IA and promotion of healthy child development in the internet era.

Given the negative physical and psychosocial effects of IA on male adolescents, exploring the effects of IA and development of strategies to reduce IA is imperative. There is a paucity of studies about IA that focus on behavioral aspects, effect of IA, and self-control among male adolescents. The gap in knowledge about internet use among adolescents and the role of parents needs to be addressed. The aim of this study was to identify the socioemotional phenomena among male adolescents with IA in Indonesia, which can help inform policy-level interventions against IA.

Methods

A qualitative study with a phenomenological approach was undertaken between February and October 2020. A phenomenological approach is effective in describing the meaning of the phenomena related to IA among adolescents (Creswell, 2014). We explored the life experiences from the perspectives of adolescents (Neubauer et al., 2019).

Participants

A purposive sample of nine adolescents with senior high school education level who exhibited IA behavior were enrolled. Participants belonged to several cities in the West Java province of Indonesia. IA test was used by researchers to determine the IA behavior among adolescents (Young Nabuco de Abreu, 2011). The inclusion criteria were male adolescents with IA behaviors. Purposive sampling was carried out by selecting participants who had knowledge and experience of IA in several high schools (Cresswell & Plano Clark, 2011). The availability and willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner are important determinants of purposive sampling (Bernard, 2017). After identification, the potential participants were contacted and provided information about the study. Verbal and written informed consent was obtained from all participants prior to their enrolment.

Data Collection

All participants underwent individual semistructured interviews, which helped the researchers to systematically focus on the aims of the study and to obtain participants' experiences (Jamshed, 2014). Using an interview guide, the lead author conducted in-depth interviews, which explored the participants' experiences with IA, effects of IA, and strategies to reduce IA. Data collection and analysis took place concurrently. Data saturation was reached, when no new information was discovered with repeated confirmation, and recurrence of themes and codes during data analysis. These are redundancy signals indicating that data collection may cease (Faulkner & Trotter, 2017; Morse et al., 2002).

Participants were interviewed by telephone to prevent transmission of COVID-19. Strategies to ensure the success of the telephone interviews included the use of speakerphones and recording of interviews with the permission of participants. The interviewer also provided a private space in order to minimize background noise and distraction. The duration of each telephone interview was limited to 30–40 min to avoid fatigue and inattention. The identity of the participant was also confirmed by the researcher prior to the initiation of the interview (Bolderston, 2012). The strategy of investigator triangulation was used for data analysis, which refers to the use of several researchers in a study (Noble & Heale, 2019). Lincoln and Guba's evaluative criteria for qualitative research was applied for establishing the trustworthiness of this study, including credibility, dependability, confirmability, and transferability (Polit & Beck, 2012).

Data Analysis

We use NVIVO version 1.4.1 for Mac to manage and organize the categories. Then, WR transcribed and analyzed the data using thematic analysis. This type of analysis is used to uncover complex meanings and group these into themes. Thematic analysis consists of (1) familiarizing oneself with the collected data by reading through it several times; (2) searching for meanings and themes by

Table 1. Demographic Data of Participants ($n = 9$).

Participant	Age (years)	High school level	Duration internet usage (hr/day)	Internet use
P1	17	Year 3	12	Instagram[a], TikTok[a], Line[b], WhatsApp[b], Google[c]
P2	17	Year 3	10	Korean drama[f], YouTube[f], Instagram[a], Line[b], Facebook[a], Google[c]
P3	17	Year 3	8	Online gaming[d], Facebook[a], Instagram[a], Twitter[a], Google[c], WhatsApp[b]
P4	15	Year 2	12	Online gaming[d], Instagram[a], Google[c]
P5	16	Year 1	8	YouTube[f], online gaming[d], Tokopedia[e], Google[c]
P6	17	Year 3	12	WhatsApp[b], YouTube[f], online gaming[d], Google[c]
P7	15	Year 2	8	Online gaming[d], Google[c]
P8	16	Year 2	8	TikTok[a], online gaming[d], Google[c]
P9	16	Year 2	12	Facebook[a], Google[c], WhatsApp[b]

Note. [a]Social media: Facebook, Twitter, Instagram, TikTok.
[b]Peer-to-peer messaging: WhatsApp, Line.
[c]Information searching: Google.
[d]Gaming: Online gaming.
[e]Online shopping media: Tokopedia.
[f]Movie: YouTube, Korean dramas.

exploring their similarities and differences to identify patterns; and (3) organizing themes into a meaningful whole (Sundler et al., 2019). Peer debriefing was implemented by having all researchers discuss the data during analysis. Subsequently, the analyzed data were returned to the participants to re-check and validate the findings.

Ethical Considerations

Ethical approval for this study was obtained from the Research Ethics Committee of Universitas Padjadjaran (No. 465/UN6.KEP/EC/2020). All participants were provided information about the study, following which written informed consent was obtained using a Google Form. Parental consent was not required because risks were deemed minimal, and the confidentiality of responses was assured. This is consistent with best practices in research (Holder, 2008). Confidentiality in this study was assured by protecting the identities of participants in the collected data. The names of all participants were coded (e.g., P1 for participant number 1) in all documentation and only the researchers knew about the codes. Nevertheless, participants were encouraged to seek parental or school support prior to participating. Participation in this study was entirely voluntary with no potential for physical or mental harm to the participants.

Findings

Demographic data are presented in Table 1. The age of participants ranged from 15 to 17 years. Most participants accessed the internet via their mobile phones. Participants mainly used the internet for (1) entertainment, such as online gaming, watching Korean dramas, and YouTube, or accessing social media applications such as Instagram, Facebook, Twitter, and TikTok; (2) peer-to-peer messaging through WhatsApp and Line; and (3) seeking information, particularly related to school assignments and activities (using Google) and other purposes including business and online shopping (using Tokopedia). Most participants used internet for more than 8 hr per day.

Four main themes emerged from the data analysis: reasons for IA, unmet social need without the internet, effects of IA, and self-control over internet usage (Table 2).

Reasons for IA

All participants reported that their IA had developed over time due to habitual frequent use of internet. We identified distinct external, internal, and COVID-19-related factors that contributed to IA.

External Factors. External factors included the influence of peers (friends) who accessed the internet, which placed pressure on participants to use mobile phone and internet.

> Almost all my friends always use a mobile phone; thus, if I do not use it too, I feel awkward, and I do not know what I have to do (P1).

Another external factor was the family environment. Owing to the lack of intensity of relationship and interaction with the family members, the participants used internet and mobile phone as a means of distraction. In addition, at home, all family members are busy with work and mobile phones.

Table 2. Themes, Categories, and Subcategories.

Theme	Categories	Subcategories
Reasons for internet addiction	External factors	Friends
		Family environment
	Internal factors	Loneliness
		Boredom
		Avoidance of danger from gangs
	COVID-19	Quarantine
Unmet social need without the internet	Internet behaviors	Never separated from mobile phone
		Spending most waking hours online
	Feelings about the internet	Social connectedness
		Curiosity
		Need for being up to date
		Feeling excited
		Feelings of achievement
	Feelings when unable to connect to the internet	Feeling incomplete or something missing in life
		Anxiety
Effects of internet addiction	Daily activities	School work, prayers, eating, bathing, sleeping
	Physical effects	Fatigue, weakness, vomiting, fever, drowsiness, dizziness, headache, sore eyes, stomach pain, loss of consciousness
	Interpersonal relationships	Friends
		Family members
	Psychological effects	Anger
		Insecurity
Self-control over internet use	Forming relationships with others	Interacting
	Seeking other activities	Activities
	Controlling internet use	Turning off mobile data
		Deleting game applications
		Managing time
		Putting away the mobile phone

> Everybody in my family is busy with their own business. Everybody stays in their own room. We rarely interact with each other. Everybody is busy with their own mobile phone (P1).

Internal Factors. Internal factors included loneliness, boredom, and distraction from problems. One participant expressed that he overused the internet to reduce his feelings of loneliness:

> My family often move house. Therefore, I have had no friends since junior high school. After I finish school, I go directly back home. . . Even in my neighborhood, I do not have any friends. . . I could not adapt to this situation. Thus, I always spend my time in my bedroom and play games online. . . Moreover, I have many online friends from online gaming. (P7)

Five participants reported that they overused the internet to reduce their feelings of boredom. For instance, one participant spent most of his time in online entertainment avenues.

> My parent rarely stays at home, so accessing the internet is good to reduce my boredom. . . I often play games and watch YouTube (P4).

Avoidance of danger from gangs was also reported as a reason for overuse of the internet:

> I saw terrible fighting between adolescent gangs. It is a terrifying thing if I have friends like them. It is better if I stay at home and have no friends. . . I worry that I will be influenced by the bad things. (P7)

COVID-19 Factors. Four participants expressed that their addiction had worsened during the COVID-19 pandemic because of the need to stay at home and quarantine for long time, including for schooling.

> I often play games online, but I have spent more time during this pandemic (P6).

Unmet Social Need Without the Internet

This theme relates to the behaviors and feelings of adolescents related to IA. This theme consisted of three categories, namely internet behavior, feeling about the internet, and feelings when unable to connect to the internet.

Internet Behaviors. Typical adolescent behavior in using the internet is exemplified by their tendency for being virtually inseparable from their mobile phone, since mobile phones are largely used to access the internet, social media, and other entertainment avenues. Thus, the adolescents frequently fiddle with and use their mobile phones during their daily activities.

> I cannot be far from my mobile phone. . . every time I wake up, I always hold my mobile phone and access the internet to open Instagram, YouTube, and Line" (P2).

Participants spent most of their waking hours online. The time spent accessing the internet depended on individual situations; however, the average daily internet usage was more than 8 hr/day. Adolescents frequently used social media or watched dramas, while only a few used internet to obtain new information. As one participant reported:

> It depends on my busy day. But commonly I access the internet up to 8 hours a day to use social media like Instagram and TikTok. Sometimes, I used internet to search information related my task in school (P5).

Feeling About the Internet. Participants tended to seek connection with other gamers while playing online games. Participants usually experienced a feeling of social connectedness, curiosity about information related to popular artists or friends on social media, the need to post up-to-date information about themselves on social media, feeling excited, and sense of achievement on winning a game. All participants reported a need to feel connected to their peers through social media platforms such as Facebook, Twitter, Line, Instagram, TikTok, and WhatsApp. One participant who frequently accessed social media platforms stated:

> I often use Instagram and Line; it makes me feel I still have connection with my friends. . . I think everybody actively using social media. So, I can socialize with others (P2).

Participants also reported feeling curious to obtain information about popular artists or friends on social media, the need to post up to date information or photo of themselves on social media. One participant who was addicted to social media reported:

> I often open social media; I am just curious about any new information. . . Even if I have to do my school or other tasks, I often want to open [social media] and scroll up and down. I think that it is okay to scroll my timeline of social media. . . everything should be uploaded in my social media. It is like I do not want to be left behind [from] others. (P1)

Participants who engaged in online gaming played with virtual friends in distant locations. They also sought social connectedness and expressed feelings of excitement:

> I often want to play games online. It is exciting because I can play with other people. I have friends from games online and I can communicate with them. . . There are many people from outside of Java island, so we can know each other. (P8)

Gamers also experienced a feeling of achievement when they won a game. Adolescents feel that winning a game is an achievement because it implies their ability to compete in a challenge and beat the opponents in the game. In addition, by playing games, users can collect points that can be used to upgrade the characters in the game. In addition, online games can also be addictive. One participant reported:

> I am addicted to gaming online. I play in teams, and the cohesiveness of the team and the excitement of gaming online make me comfortable. Particularly, when I win the game, it makes me more addicted (P7).

Feelings When Unable to Connect to the Internet. When participants were unable to connect to the internet, they felt that something was incomplete or missing in their life. This was because the participants were already addicted to mobile phones and the internet. Therefore, they felt the need to carry a mobile phone at all times. One participant described this feeling.

> I feel that my mobile phone is my friend. . . everywhere I go, I have to bring my mobile phone. If not, I feel like something incomplete. . . This is like eating rice without its side dishes (P6).

The participants also experienced anxiety when they were unable to access the internet. This was attributable to the IA among the respondents and their dependence on mobile phones.

> If I do not take my mobile phone, it's like. . . I feel anxious and panic. I am afraid of missing information or my mobile phone may be broken (P3).

Effects of IA

The four main effects of IA were related to daily activities, interpersonal relationships, physical effects, and psychological effects.

Daily Activities. The effects of IA on daily activities reported by participants included those on schoolwork,

prayers, eating, bathing, and sleeping. For example, a participant who was addicted to social media stated:

> I became addicted [to social media], so it makes me often postpone my school tasks. . . Then, it drives me to continue scrolling this and that on my mobile phone (P1).

A similar effect was reported by a participant who was addicted to online gaming:

> Because I really enjoyed the game, I forgot to pray and eat. . . Commonly, I play the game until midnight, and sometimes I do it until early morning. Thus, it disrupts my sleeping time (P4).

Physical Effects. Six participants also experienced the physical effects of IA, which included fatigue, weakness, vomiting, fever, drowsiness, dizziness, headache, sore eyes, stomach pain, and even loss of consciousness. These physical problems were caused by disruption of nutrition and lack of rest. For instance, one participant experienced several physical problems caused by excessive online gaming:

> My sleep and mealtime patterns were irregular because of overuse of online gaming, and I never did not sleep in the entire day. . . This made me feel dizzy, weak, and my vision became blurry. . . the worst condition, I became unconscious, and had to be admitted to hospital. (P7)

Interpersonal Relationships. Four participants reported interpersonal problems as a result of IA. These participants preferred the internet over interacting with others, including their friends or family members. For example, one participant stated:

> I enjoy accessing social media and the consequence is less interaction with my friends. . . But my friends also often use social media to make connection with others. We rarely directly chat face to face. By social media, we can interact with others (P5).

A similar experience was reported by another participant who had a problem with family relationships:

> I often stay in my bedroom, and I'm busy with my mobile phone. I rarely interact with others [family members]. . . Sometimes I come out of my bedroom and talk with my family for a while, then back to my room. (P1)

Psychological Effects. Psychological effects of IA were reported by four participants. These participants reported feelings of emotional lability (easily angered) or insecurity. Some participants felt angry if they felt inconvenienced, did not win an online game, or had a poor internet signal.

> If I lost when online gaming, I became grumpy. . . I hit everything near me, such as a cupboard, wall, etcetera. . . I would, like, hit the wall, but I lost control and caused my fan to fall down and break. (P7)

Another participant felt insecure as a result of social media addiction:

> I often access social media. I often see other people who have many advantages and more than me. I feel insecure. Why I am like this? When will I be like them? It is about a physical problem. I always feel inferior and ugly. (P1)

Self-Control

At times, participants would become aware of their excessive internet use, particularly when they experienced its effects on their life or were reprimanded by their parents. Participants resorted to several self-control strategies to reduce their internet habit, including forming relationships with people, engaging in other activities, and controlling their internet usage.

Forming Relationships With Others. Four participants described their attempts to reduce their internet use by increasing their interactions with others. One participant, who engaged in online gaming for long periods through his mobile phone, stated:

> I try to go out and play with my friends. If I play with them, I rarely hold my mobile phone (P6).

Seeking Other Activities. Engaging in other activities such as playing football, taking care of pets, joining a martial arts class, or helping with household tasks was another strategy used to reduce internet use. One participant who frequently accessed the internet for entertainment attempted to reduce his internet use because of its physical effects.

> Sometimes I had sore eyes when using my mobile phone. . . then I stopped it and tried to find other activities to do. . . helping my mother, playing football, or other activities (P8).

Controlling Internet Usage. The final strategy reported by participants was to control their internet use by turning off their mobile data, deleting game applications, managing their time, and putting away their mobile phone. For example, one participant who had been admitted to hospital from overuse of the internet stated:

> If I remember the impact of long time use of the internet on my health, I try to reduce my habit to overuse the internet. . . usually I delete some game applications on my mobile phone, and I do not buy mobile data. (P3)

Another participant, who was addicted to watching Korean dramas, reported a similar experience with managing time:

> Watching Korean drama makes me want to finish watching all episodes quickly, from the first to the last episode. It is difficult to get out from my comfort zone. . . But I know it is not good. Therefore, I try to select an ongoing episode of drama that is released every weekend. . . or limit myself to watching only one episode of drama a day. (P2)

Three participants described the strategy of putting the mobile phone away. One participant put his mobile phone away when he felt tired.

> If I feel tired [from using the mobile phone], I put away my mobile phone for a while. I do not hold it. I go out and sit on the terrace (P3).

Discussion

In this study, we elicited the reasons for IA, unmet social need without the internet, effects of IA, and strategies to reduce IA adopted by adolescents with IA. However, management of IA among adolescents is a serious concern for parents, society, and health workers.

In this study, we found that several factors related to the COVID-19 pandemic aggravated IA among adolescents. The internal factors (loneliness, boredom, and avoidance of danger from gangs) and external factors (friends and family environment) contributed to excessive internet use and addiction among male adolescents. Participants were typically first introduced to the internet by their peers. This finding is similar with that of a study conducted in the United States in which peer attachment had an influence on internet use among adolescents (Reiner et al., 2017). On the other hand, poor relationships with friends or family, leading to feelings of loneliness and boredom were reported as a trigger for excessive internet usage. Participants used the internet excessively as a coping mechanism for loneliness and boredom. Previous studies have found a significant relationship of IA with loneliness (Cheung et al., 2018; Yayan et al., 2019) or boredom (Tenzin et al., 2019). Poor family relationships may also lead to reduced parental control over adolescent internet use (Cacioppo et al., 2019). The IA is worsened during the COVID-19 pandemic because of school closures and the need to stay at home. This situation is similar to that reported in China, where addictive internet use among children and adolescents increased during the COVID-19 pandemic (Dong et al., 2020; Duan et al., 2020). Moreover, this information may underlie the occurrence of IA behavior among adolescents in Indonesia.

As an effect of IA, adolescents experience an unmet social need in the absence of internet. This is certainly a worrisome connotation of IA, wherein the internet affects the condition and social needs of adolescents. Participants in our study spent a lot of time on the internet, more than 8 hours per day. They mostly accessed the internet using their mobile phones, which made it an inseparable part of their daily life. Keeping the mobile phones turned on possibly made it easier for them to access the internet anytime and from anywhere (AlBarashdi et al., 2016; Tenzin et al., 2019).

This study revealed a new model wherein the IA provided a sense of social connection through social media or online games. This finding aligns with that of a previous study, which found that social media use and online gaming were predictors of social connectedness, defined as the feeling of being a significant part of one's social and emotional relationships (Savci & Aysan, 2017). Engaging in social media through checking, posting, and interacting can lead to addiction (AlBarashdi et al., 2016). Participants played online games in teams and developed connections with friends in many places (Lee & Kim, 2017; Young Nabuco de Abreu, 2011). Peer groups and friendships are an important aspect of adolescent life (Savci & Aysan, 2017). However, this cannot be justified in its entirety, since IA can have negative effects in the future (Cash et al., 2012). Social connections can be established via other means without developing IA.

The effect of IA expressed by adolescents included physical and psychological health problems and the adverse effect on interpersonal relationships and daily activities. This finding is consistent with those of studies conducted in Malaysia and Bhutan, which have reported the adverse effects of IA on the psychological health of younger generations (Shah Alam et al., 2014; Tenzin et al., 2019). Adolescents with severe IA must immediately seek treatment to prevent mental health problems, which can adversely affect their development and growth.

However, adolescents were aware of the need to exercise self-control for mitigating IA. The participants attempted to control their internet use, even though they were not consistent in their efforts. Self-control can induce behavioral change among adolescents, which is important to reduce IA if consistently applied (Akın et al., 2015). A previous study identified several strategies used to reduce IA, including controlling the time spent online, increasing the frequency of interpersonal interactions, increasing involvement in other activities, being aware of the effects of IA, and using the internet to solve real-world problems (Rębisz & Sikora, 2018).

Insights gained from this study can help assist health professionals and families in understanding the experiences of IA among male adolescents. Our findings can help inform interventions to manage, prevent, and reduce

IA among male adolescents. Educational and psychosocial counseling are required to increase awareness about the effects of IA. In addition, introvert adolescents were found to be at a greater risk of IA. Thus, promotion of physical activity, group activities, and interaction between parents and adolescents can help prevent IA.

Some limitations of this study should be acknowledged. This study adopted a phenomenological approach using a small sample of Indonesian adolescents. Therefore, the findings may not be entirely applicable to other sociocultural contexts and countries. Participants may have chosen to avoid discussing topics such as pornography, which may have resulted in missing data. Nonetheless, this study enriches the contemporary knowledge about IA among male adolescents, which may be transferable to populations with a similar culture. Further research in other populations is recommended.

Conclusion

Internet use has benefits as well as negative effects when excessive. This study explored the experiences of IA among male adolescents, who described having an unmet social need without the internet, the reasons for their IA, the effects of IA, and their self-control over internet usage. These findings may assist health professionals and families to support male adolescents in managing and reducing their internet use.

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ORCID iD

Windy Rakhmawati https://orcid.org/0000-0001-7173-4886

References

Akın, A., Arslan, S., Arslan, N., Uysal, R., & Sahranç, Ü. (2015). Self-control/management and internet addiction. *International Online Journal of Educational Sciences*, *7*(3), 95–100. https://doi.org/10.15345/iojes.2015.03.016

AlBarashdi, H., Bouazza, A., Jabur, N. H., & Al-Zubaidi, A. S. (2016). Smartphone addiction reasons and solutions from the perspective of Sultan Qaboos University undergraduates: A qualitative study. *International Journal of Psychology & Behavior Analysis*, *2*(113), 1–10. https://doi.org/10.15344/2455-3867/2016/113

Al-Gamal, E., Alzayyat, A., & Ahmad, M. M. (2016). Prevalence of internet addiction and its association with psychological distress and coping strategies among University students in Jordan. *Perspectives in Psychiatric Care*, *52*(1), 49–61. https://doi.org/10.1111/ppc.12102

Arthanari, S., Khalique, N., Ansari, M. A., & Faizi, N. (2017). Prevalence & determinants of internet addiction among Indian adolescents. *Indian Journal of Community Health*, *29*(1), 89–95.

Ballarotto, G., Volpi, B., Marzilli, E., & Tambelli, R. (2018). Adolescent internet abuse: A study on the role of attachment to parents and peers in a large community sample. *BioMed Research International*, *2018*, 1–10. https://doi.org/10.1155/2018/5769250

Bernard, H. R. (2017). *Research methods in anthropology: Qualitative and quantitative approaches*. Rowman & Littlefield.

Bolderston, A. (2012). Conducting a research interview. *Journal of Medical Imaging and Radiation Sciences*, *43*(1), 66–76. https://doi.org/10.1016/j.jmir.2011.12.002

Cacioppo, M., Barni, D., Correale, C., Mangialavori, S., Danioni, F., & Gori, A. (2019). Do attachment styles and family functioning predict adolescents' problematic internet use? A relative weight analysis. *Journal of Child and Family Studies*, *28*(5), 1263–1271. https://doi.org/10.1007/s10826-019-01357-0

Cash, H., Rae, C. D., Steel, A. H., & Winkler, A. (2012). Internet addiction: A brief summary of research and practice. *Current Psychiatry Reviews*, *8*(4), 292–298. https://doi.org/10.2174/157340012803520513

Cheung, J. C. S., Chan, K. H. W., Lui, Y. W., Tsui, M. S., & Chan, C. (2018). Psychological well-being and adolescents' internet addiction: A school-based cross-sectional study in Hong Kong. *Child and Adolescent Social Work Journal*, *35*(5), 477–487. https://doi.org/10.1007/s10560-018-0543-7

Clark, D. J., Frith, K. H., & Demi, A. S. (2004). The physical, behavioral, and psychosocial consequences of internet use in college students. *CIN: Computers, Informatics, Nursing*, *22*(3), 153–161. https://doi.org/10.1097/00024665-200405000-00010

Cresswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed method research* (2nd ed.). Sage.

Creswell, J. W. (2014). *Qualitative inquiry & research design. pdf* (4th ed.). Sage.

Dong, H., Yang, F., Lu, X., & Hao, W. (2020). Internet addiction and related psychological factors among children and adolescents in China during the Coronavirus disease 2019 (COVID-19) epidemic. *Frontiers in Psychiatry*, *11*(September), 1–9. https://doi.org/10.3389/fpsyt.2020.00751

Drayton, A. K., Andersen, M. N., Knight, R. M., Felt, B. T., Fredericks, E. M., & Dore-Stites, D. J. (2014). Internet guidance on time out: Inaccuracies, omissions, and what to tell parents instead. *Journal of Developmental and*

Behavioral Pediatrics: JDBP, *35*(4), 239–246. https://doi.org/10.1097/DBP.0000000000000059

Duan, L., Shao, X., Wang, Y., Huang, Y., Miao, J., Yang, X., & Zhu, G. (2020). An investigation of mental health status of children and adolescents in china during the outbreak of COVID-19. *Journal of Affective Disorders*, *275*(April), 112–118. https://doi.org/10.1016/j.jad.2020.06.029

Faulkner, S. L., & Trotter, S. P. (2017). Data saturation. In *The international encyclopedia of communication research methods* (pp. 1–2). Wiley. https://doi.org/10.1002/9781118901731.iecrm0060

Holder, A. R. (2008). Research with adolescents: Parental involvement required? *Journal of Adolescent Health*, *42*(1), 1–2. https://doi.org/10.1016/j.jadohealth.2007.10.014

Indonesia, A. P. J. I. (2018). *Penetrasi & profil perilaku pengguna internet Indonesia*. APJII.

Jamshed, S. (2014). Qualitative research method-interviewing and observation. *Journal of Basic and Clinical Pharmacy*, *5*(4), 87. https://doi.org/10.4103/0976-0105.141942

Karacic, S., & Oreskovic, S. (2017). Internet addiction through the phase of adolescence: A questionnaire study. *JMIR Ment Health*, *4*(2), 1–14. https://doi.org/10.2196/mental.5537

Kurniasanti, K. S., Assandi, P., Ismail, R. I., Nasrun, M. W. S., & Wiguna, T. (2019). Internet addiction: A new addiction? *Medical Journal of Indonesia*, *28*(1), 82–91. https://doi.org/10.13181/mji.v28i1.2752

Kusnanto, K., Rohmah, F. A., Wahyudi, A. S., & Arifin, H. (2020). Mental workload and stress with blood glucose level : A correlational study among lecturers who are structural officers at the University. *Systematic Reviews in Pharmacy*, *11*(7), 253–257. https://doi.org/10.31838/srp.2020.7.40

Lee, C., & Kim, O. (2017). Predictors of online game addiction among Korean adolescents. *Addiction Research and Theory*, *25*(1), 58–66. https://doi.org/10.1080/16066359.2016.1198474

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods*, *1*(2), 13–22. https://doi.org/10.1177/160940690200100202

National Academies of Sciences, E and M. (2019). The promise of adolescence: Realizing opportunity for all youth. In *The Promise of Adolescence*. The National Academic Press. https://doi.org/10.17226/25388

Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education*, *8*(2), 90–97. https://doi.org/10.1007/s40037-019-0509-2

Noble, H., & Heale, R. (2019). Triangulation in research, with examples. *Evidence Based Nursing*, *22*(3), 67–68. https://doi.org/10.1136/ebnurs-2019-103145

Polit, D. F., & Beck, C. T. (2012). *Nursing research, generating and assessing evidence for nursing practice*. Wolters Kluwer Health.

Rębisz, S., & Sikora, I. (2018). Internet addiction in adolescents. *Practice and Theory in Systems of Education*, *11*(3), 194–204. https://doi.org/10.1515/ptse-2016-0019

Reiner, I., Tibubos, A. N., Hardt, J., Müller, K., Wölfling, K., & Beutel, M. E. (2017). Peer attachment, specific patterns of internet use and problematic internet use in male and female adolescents. *European Child and Adolescent Psychiatry*, *26*(10), 1257–1268. https://doi.org/10.1007/s00787-017-0984-0

Santrock, J. W. (2011). *LIfe-span development* (13th ed.). McGraw-Hill.

Savci, M., & Aysan, F. (2017). Technological addictions and social connectedness: Predictor effect of internet addiction, social media addiction, digital game addiction and smartphone addiction on social connectedness. *Dusunen Adam*, *30*(3), 202–216. https://doi.org/10.5350/DAJPN2017300304

Schneider, L. A., King, D. L., & Delfabbro, P. H. (2017). Family factors in adolescent problematic Internet gaming: A systematic review. *Journal of Behavioral Addictions*, *6*(3), 321–333. https://doi.org/10.1556/2006.6.2017.035

Shah Alam, S., Hazrul Nik Hashim, N. M., Ahmad, M., Che Wel, C. A., Mohd Nor, S., & Asiah Omar, N. (2014). Negative and positive impact of internet addiction on young adults: Empirical study in Malaysia Syed. *Intangible Capital*, *10*(3), 619–638. https://doi.org/10.3926/ic.452

Shek, D. T. L., & Yu, L. (2016). Adolescent internet addiction in Hong Kong: Prevalence, change, and correlates. *Journal of Pediatric and Adolescent Gynecology*, *29*(1), S22–S30. https://doi.org/10.1016/j.jpag.2015.10.005

Stats, I. W. (2020). *World internet usage and population statistics 2020*. Internet World Stats.

Sundler, A. J., Lindberg, E., Nilsson, C., & Palmér, L. (2019). Qualitative thematic analysis based on descriptive phenomenology. *Nursing Open*, *6*(3), 733–739. https://doi.org/10.1002/nop2.275

Tenzin, K., Dorji, T., Choeda, T., Wangdi, P., Oo, M. M., Tripathy, J. P., Tenzin, T., & Tobgay, T. (2019). Internet addiction among secondary school adolescents: A mixed methods study. *Journal of the Nepal Medical Association*, *57*(219), 344–351. https://doi.org/10.31729/jnma.4292

Tsitsika, A., Critselis, E., Louizou, A., Janikian, M., Freskou, A., Marangou, E., Kormas, G., & Kafetzis, D. A. (2011). Determinants of internet addiction among adolescents: A case-control study. *The Scientific World Journal*, *11*, 866–874. https://doi.org/10.1100/tsw.2011.85

Wang, L., Luo, J., Bai, Y., Kong, J., Gao, W., & Sun, X. (2013). Internet addiction of adolescents in China: Prevalence, predictors, and association with well-being. *Addiction Research and Theory*, *21*(1), 62–69. https://doi.org/10.3109/16066359.2012.690053

Wu, C. S. T., Wong, H. T., Yu, K. F., Fok, K. W., Yeung, S. M., Lam, C. H., & Liu, K. M. (2016). Parenting approaches, family functionality, and internet addiction among Hong Kong adolescents. *BMC Pediatrics*, *16*(1), 130. https://doi.org/10.1186/s12887-016-0666-y

Yayan, E. H., Suna Dağ, Y., & Düken, M. E. (2019). The effects of technology use on working young loneliness and social relationships. *Perspectives in Psychiatric Care*, *55*(2), 194–200. https://doi.org/10.1111/ppc.12318

Young Nabuco de Abreu, K. S. (2011). *Internet addiction: A handbook and guide to evaluation and treatment*. John Wiley & Sons, Inc.