# Student Counsellors' Perspectives on Comprehensive Prevention and Intervention Strategies for Adolescent Internet Addiction

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**Abstract**

**Objective:** This study aimed to explore the perspectives of student counsellors regarding comprehensive prevention and intervention strategies for addressing internet addiction among adolescents.

**Method:** This study employed an exploratory-descriptive qualitative design. Data collection involved focus group discussions (FGDs) with 12 purposively selected student counsellors from high schools in four West Java regions. Counsellors were chosen based on their experience in managing students with internet addiction within the past year. FGDs were conducted virtually due to Covid-19 restrictions, with sessions aimed at exploring perceptions and strategies related to internet addiction prevention and intervention. Data were analyzed using thematic analysis following Clarke and Braun's approach to identify key themes.

**Results:** The results of the study obtained 5 themes which are: a comprehensive assessment is needed to determine appropriate interventions for students experiencing internet addiction; family is the main supporting factor in managing and preventing internet addiction; various parties must cooperate in overcoming internet addiction; health education about internet addiction during school orientation is important as a prevention program; and digitalization and communication control programs affect the phenomenon of internet addiction.

**Conclusion:** Based on the results of this study, we can conclude the importance of comprehensive assessments to determine appropriate interventions and the need for support from other parties in overcoming internet addiction among students.

**Key words:** *Adolescent; Internet Addiction; Intervention; Prevention; Student Counsellor*

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Adolescence is a critical developmental stage, and in recent years, the increasing use of the internet has brought about new challenges for young people of this age, including internet addiction. This addiction is defined as the compulsive use of the internet, leading to negative consequences in daily life (1). Internet addiction among adolescents is particularly concerning as it can lead to a range of problems such as poor academic performance, social isolation, and disrupted sleep patterns (2).

Globally, adolescents make up a significant portion of the population, with recent data indicating that they represent approximately 16% of the world's population (3). Indonesian adolescents aged 10-19 years include 17% of the total population, with the highest numbers in the West Java Province, Indonesia. Furthermore, Kim (2008) classifies these individuals as a risk group for illegal drug use, premarital sex, and internet addiction (4). Internet addiction involves difficulty controlling oneself in using the internet, impacting daily life (5). Excessive internet use or addiction negatively impacts users, especially adolescents. These impacts include spending long hours on the internet, skipping school, sleeping in class, low school performance, incomplete school assignments, and loss of social relationships or groups (6).

Various continents have experienced increases in annual internet usage, including Asia by 54.2%, Europe by 13.9%, and Africa by 11.2% (Internet World Stats, 2023). American adolescents using the social media increased from 34% to 70% in 2012-2018. Furthermore, Indonesia had 35.6% of internet users in 2014, ranked 6th after the United States, China, India, Brazil, and Japan. Data from a survey using 2206 respondents from 31 provinces in Indonesia shows that as many as 25% of respondents experienced internet addiction (7). This figure is almost the same as the results of the research in Taiwan, which used 1060 respondents and found that 24.4% of respondents experienced internet addiction (8). According to a survey conducted by the Indonesian Internet Service Providers Association (APJII) (2020), the number of Internet users in Indonesia increased by 14.6% to 196 million in 2019 from 171 million in 2018 (9).

Internet addiction is a behavioral disorder that has a negative impact on the lives of adolescents. Teenagers who experience internet addiction spend a lot of time accessing the internet (6). They tend to skip school and sleep in class, so that their school performance decreases because they do not complete school assignments. They also lose social connections or drop out of social groups (10).

Despite increasing awareness of the prevalence and dangers of internet addiction among adolescents, efforts to prevent and manage this issue remain insufficient. Many families lack adequate information on recognizing the risks and warning signs of internet addiction, which limits their ability to make early interventions and effectively support affected youth. This lack of awareness often stems from insufficient outreach, education, and resources targeting parents and caregivers (11). Additionally, government-led initiatives have been limited to sporadic educational videos shared through online platforms, such as YouTube, with little emphasis on sustained, multifaceted prevention campaigns or community-based programs (12). Such a narrow approach fails to address the complex, multifactorial nature of internet addiction, which often involves underlying issues such as academic stress, peer dynamics, and familial influences (13). The absence of comprehensive, evidence-based strategies underscores the urgent need for collaborative efforts among schools, healthcare professionals, government agencies, and families to design and implement tailored interventions that can effectively curb this growing problem among adolescents.

Various parties, including schools, governments, and families, should be involved and held responsible about increased internet addiction among adolescents to prevent serious present and future impacts (14). Until now, many families are not yet aware of internet addiction because of lack of information. The government has no specific program about internet addiction. Information is made available to the public only through some educational videos created and shared by internet users on YouTube or the social media (14). Furthermore, a previous study in Bandung, west Java, reported that more than a half of adolescents used the internet for more than 6 hours per day, which is interpreted as internet addiction. This addiction is related to academic stress and family and peer attachment (15), which the student's counsellor should address. A student counsellor is a professional counsellor tasked with and responsible for providing guidance and counselling services to students at school (16). The task of student counsellors is to help and support the development of all students' abilities according to their potential through guidance and counselling services. Therefore, this study aims to explore the experiences and perspectives of high school student counsellors working with students experiencing internet addiction.

## Materials and Methods

### Design
This research is an exploratory-descriptive qualitative study aimed at gaining insights from specific participants to inform the development of programs or interventions (17). The study's purpose is to explore the experiences and perspectives of high school student counsellors working with students experiencing internet addiction.

### Participants and Setting
Purposive sampling was used to select 12 high school student counsellors from four regions in West Java who

had experience handling students with internet addiction in the past year. Participants were excluded from the study if they did not complete the research process. An official letter was sent to the target institutions, and initial contact with participants was made through WhatsApp (WA) groups. Due to COVID-19 restrictions, individual contact with participants was facilitated through direct WhatsApp messages. Initially, 16 participants were approached, of whom 12 confirmed their willingness to participate in the study.

### Ethical Considerations

Ethical approval for this study was granted by the Research Ethics Committee of Universitas Padjadjaran (No. 062/UN6.KEP/EC/2021). All participants were informed about the study, and written informed consent was obtained via the Google Forms. The identities of the participants were protected by coding their names (e.g., P6 for participant 6), with only the researchers knowing the corresponding codes. Participation was voluntary, and no physical or mental harm occurred.

### Data Collection

### Consent Process

Participants initially received detailed study information via WhatsApp, including the purpose of the research and what their participation would involve. They were then asked to provide written informed consent by completing the consent form via a Google Form.

### Focus Group Discussions

Two Focus Group Discussions (FGDs) were conducted via Zoom meetings:

- **First FGD**: The first session took place on August 13, 2021, and lasted for 2 hours. This FGD aimed to explore the participants' experiences and perceptions of managing students with internet addiction. The main question posed was, "What is your experience in dealing with students who experience internet addiction?" Probing questions included, "What is the role of parents in dealing with these students?" "What role do schools play in preventing internet addiction?" and "What is the government's role in preventing this problem?" All participants actively participated in the discussion.
- **Second FGD**: The second session was held on September 3, 2021, for 1.5 hours. This FGD
- aimed to validate and clarify the findings from the first discussion, ensuring no new information was introduced. Additional details and clarifications were provided by participants during this session.

### Recording and Confidentiality

Both FGDs were recorded using the Zoom Meeting platform, and all recordings were securely stored for analysis. To maintain confidentiality, the identities of participants were anonymized, and they were assigned codes (e.g., P1, P2, etc.). The data collected were stored on password-protected devices and will not be disseminated without prior consent.

### Data Analysis

Data were analyzed using the thematic analysis approach which involves identifying, analyzing, and reporting patterns (themes) within qualitative data (18). The process was as follows:

1. Familiarization: Researchers first transcribed the FGDs and familiarized themselves with the data by reading and re-reading the transcripts.
2. Initial Coding: Key statements were identified and underlined to capture the core elements of the participants' experiences.
3. Theme Identification: Initial codes were generated, and common themes were derived across the data. These themes were refined and grouped into subthemes.
4. Final Analysis: After refining the codes and subthemes, the final themes were defined and named, ensuring they accurately represented the experiences of the participants. A total of 108 significant statements were identified, which were reduced to 45 codes and then refined into 15 subthemes.

This method of analysis was chosen for its flexibility and effectiveness in uncovering patterns in qualitative data, helping to highlight key insights relevant to the study's objectives.

## Results

Demographic data are presented in Table 1. The age of participants ranged from 27 to 53 years. Most participants accessed the internet via their mobile phones.

Both FGDs with 12 participants (student counsellors) obtained the following themes: A comprehensive assessment is needed to determine the right intervention for students who experience internet addiction, family is the main supporting factor in managing and preventing internet addiction in adolescents, various parties should cooperate in overcoming internet addiction among adolescents, health education about internet addiction during school orientation is important as a preventing program, and government policies are needed to overcome internet problems among adolescents (Table 2).

**Table 1. Demographic Data of Participants Interviewed about Comprehensive Prevention and Intervention Strategies for Adolescent Internet Addiction**

| Assigned Codes | Age | Length of Time Working as Student Counsellors | Educational Background of Student Counsellors |
|---|---|---|---|
| P1 | 38 | 12 years | Master of Educational Psychology |
| P2 | 53 | 20 years | Bachelor of Educational Psychology |
| P3 | 46 | 14 years | Bachelor of Psychology |
| P4 | 52 | 18 years | Bachelor of Psychology |
| P5 | 42 | 12 years | Bachelor of Educational Psychology |
| P6 | 29 | 4 years | Bachelor of Educational Psychology |
| P7 | 40 | 10 Years | Bachelor of Educational Psychology |
| P8 | 40 | 10 years | Bachelor of Educational Psychology |
| P9 | 34 | 6 years | Bachelor of Psychology |
| P10 | 31 | 5 years | Bachelor of Educational Psychology |
| P11 | 27 | 3 years | Bachelor of Educational Psychology |
| P12 | 37 | 8 years | Bachelor of Psychology |

**Table 2. Results of Qualitative Study on the Prevention and Intervention Strategies for Adolescent Internet Addiction**

| Participants | Quotes | Theme |
|---|---|---|
| P10 | In dealing with a student who experiences internet addiction, first, we do an assessment to find out the problems being experienced by her/him. We will examine the severity of his/her internet addiction. We ask for information not only from the student but also from his/her parents. Besides that, we also asked the homeroom teacher to observe his/her learning performance in class to see whether he/she has problems related to internet addiction. We also asked for information from his/her classmates about the student's behavior at school. So…. The assessment must be complete. | A comprehensive assessment is needed to determine the right intervention for students who experience internet addiction |
| P5 | I sometimes do home visits to find out what the conditions at his house are like. | |
| P3 | In addition, communication with parents must be intensive in order to obtain deeper information about the condition of the students, as expressed by participants…. called his parents several times to know more about the condition of the students. | |
| P10 | I asked his close friends for information about the student. I obtained some information about him; that the student was often late for class and didn't socialize well with classmates, but had a hobby of sports. | |
| P1 | Recognize that each parent has a role and may contribute. Also, fathers should not be the sole educators, and older siblings may guide younger siblings. | Family is the main supporting factor in managing and preventing internet addiction in adolescents |
| P1 | Parents' responsibility must be enhanced to manage addiction. | |
| P4 | Parents must set an example on responsible smartphone usage, if required. | |
| P5 | Parents without knowledge of cellphones and gadgets usage cannot tell when their children are playing games instead of doing assignments from morning to evening, indicated [by parents when direct interactions were required. | |
| P7 | busy parents cannot control their children's internet access. Consequently, working parents do not optimize their roles. Working prevents optimization of parent's role in controlling their children. | |
| P9 | Family time is a valuable chance for parents to chat with their children. | |

| | | |
|---|---|---|
| P6 | Managing students with internet addiction can fail when one parent is busy, especially the mother.<br>I could not manage one student because the father played the main role, hence had more communication than the busy mother. | |
| P2 | Family resilience is very important in preventing and treating internet addiction problems. Furthermore, education is not beneficial in fragile families or in families with many problems. Family resilience must be promoted and popularized. | |
| P3 | Parents have the most control at home, hence should have similar rules to avoid confusion and loopholes in breaking the rules. | |
| P12 | The participants expressed the importance of parental firmness in internet usage at home and said that parents must be firm about internet usage at home, particularly about the use of internet by their children. | |
| P4 | … And take their children's cellphones or gadgets when still playing in the middle of the night. Furthermore, children will violate the rules when one parent is not firm in regulating cellphone usage. | |
| P2 | All parties must participate in controlling the addiction problem. | |
| P9 | Some parties should be jointly responsible, mainly the parents, because they are in charge of minors. This is followed by the school controlling the distribution of schedules for accessing the internet. The third responsibility is on the government. | Various parties should cooperate in overcoming internet addiction among adolescents |
| P7 | Furthermore, the internet is global, not only in Indonesia, hence everyone is responsible, including schools, teachers, parents, students, and the government. | |
| P7 | Collaboration with parents to monitor the use of mobile phones at home is needed. Support from parents is important. | |
| P3 | Consideration must be given to parents, school, friends, and peers. | |
| P1 | Influencers are also very influential in preventing and overcoming internet addiction in adolescents. They are expected to play an active role in setting an example of good internet usage. | |
| P2 | New students are not debriefed on internet addiction because schools focus on prevention of drug addiction. | Health education about internet addiction during school orientation is important as a preventive program |
| P4 | New students should learn about internet addiction, especially in elementary school. | |
| P12 | Frequent socialization on internet addiction is needed, similar to drugs in the past, by the extension team. | |
| P8 | Usually children with internet addiction have lack of education on gadgets usage, including its effects on their daily lives. | |
| P3 | The Government (Ministry of Education, Culture, Research, and Technology, and the Ministry of Communication and Information) should cooperate in overcoming harmful contents for adolescents, especially students, such as violent games and pornography. | Digitalization and communication control programs affect the phenomenon of internet addiction among adolescents |
| P9 | Addiction to online games is a dilemma. It is caused by several influencers who make money from these games, inspiring the children. The government should solve this dilemma. This can be by applying limited access to the online game, and also by educating people about the positive and negative impacts of online games. | |
| P12 | Health education about internet addiction helps students understand its positive and negative impacts. | |

**Theme 1:** A comprehensive assessment is needed to determine the right intervention for students who experience internet addiction

Based on the analysis of the FGD transcripts, it has been revealed that a comprehensive assessment is needed before being able to determine the problem and make an appropriate intervention plan for students who experience internet addiction. This was explained by one of the FGD participants (P10) as follows:

> *In dealing with a student who experiences internet addiction, first, we do an assessment to find out the problems being experienced by her/him. We examine the severity of his/her internet addiction. We ask for information not only from the student but also from his/her parents. Besides that, we also ask the homeroom teacher to observe his/her learning performance in class; whether he/she has problems related to internet addiction. We also ask for information from his/her classmates about the student's behavior at school and so on. The assessment must be complete.*

Another FGD participant (P5) added about the need to conduct home visits to find out the conditions and situation at home and the environment around the house. He revealed, *"I sometimes do home visits to find out what the conditions at his house are like."* In addition, communication with parents must be intensive in order to obtain deeper information about the conditions of the students, as expressed by participants. One participant (P3), for instance, said, *"I called parents several times to know more about the conditions of the students."*

The role of close friends is also very important in obtaining data or information about the student as expressed by one participant (P10) who said, *"I asked his close friends for information about the student. I obtained some information about him; that the student was often late for class and did not socialize well with classmates, but had a hobby of sports."*

**Theme 2:** Family is the main supporting factor in managing and preventing internet addiction in adolescents.

The participants consensually believed that family is the main supporting factor in managing and preventing internet addiction, hence its potential should be maximized. Furthermore, parents should provide time for their children to talk about everything and teach them the use of handphones. This was supported by 2 sub-themes as follows.

1) Families' role in managing children with internet addiction.

This sub-theme was presented by several participants and agreed upon by all. *"It should be recognized that each parent has a role and may contribute. Also, fathers should not be the sole educators, and older siblings may guide younger siblings. Parents' responsibility must be enhanced to manage addiction"* said P1. *"Parents must set an example on responsible smartphone usage, if required, and not continually use the phone themselves,"* said another participant (P4). Another participant (P5) backed this viewpoint, saying, *"Parents without knowledge of cellphones and gadgets usage cannot tell when their children are playing games instead of doing assignments from morning to evening, which they indicated when they were required to interact directly."* Another participant (P7) said, *"busy parents cannot control their children's internet access. Consequently, working parents do not maximize their roles. Working prevents optimization of parents' role in controlling their children."* Still another participant (P9) asserted that *"Family time is a valuable chance for parents to chat with their children."* Managing students with internet addiction can fail when one parent is busy, especially the mother. One participant (P6) stated, *"I could not manage one student because the father played the main role, hence had more communication than the busy mother."*

2) Family resilience and parental firmness in controlling the internet use of the children

Several participants revealed that families with resilience could prevent these problems among members. According to one participant (P2), *"Family resilience is very important in preventing and treating internet addiction problems. Furthermore, education is not beneficial in fragile families or in families with many problems."* Another participant (P2) added that *"family resilience must be promoted and popularized."* Additionally, the participants expressed that parental control and firmness are necessary for internet usage at home, as stated by one participant (P3): *"Parents have the most control at home, hence should have similar rules to avoid confusion and loopholes in breaking the rules."*

The participants expressed the importance of parental firmness in internet usage at home. They stated that parents must be firm (P12) and take their children's cellphones or gadgets when still playing in the middle of the night (P4). Furthermore, they believed that children will violate the rules when one parent is not firm in regulating cellphone usage (P4).

**Theme 3:** Various parties should cooperate in overcoming internet addiction among adolescents

The analysis identified this theme as cooperation from various parties to overcome internet addiction among adolescents. All participants supported this theme, expressing that they can manage the problem in school, but this requires cooperation from various parties such as parents, teachers, peers and the goverment. One participant (P2) supported this theme, saying that *"all parties must participate in controlling the addiction problem."* Additionally, another participant (P9) highlighted that all parties (parents, school, and the government) should be responsible: *"Some parties should be jointly responsible, mainly the parents, because they are in charge of minors. This is followed by the school controlling the distribution of schedules for*

*accessing the internet. The third responsibility is on the goverment."*

This statement was supported by the others, who added that most adolescents face this problem, requiring all relevant parties to take responsibility; as participant P7 stated*, "Furthermore, the internet is global, not only in Indonesia, hence everyone is responsible, including schools, teachers, parents, students, and the government."*

Another participant (P3) stressed the necessity of collaboration with parents and classmates, stating*, " Collaboration with parents to monitor the use of mobile phones at home is needed. Support from parents is important."* This participant emphasized that *"consideration must be given to parents, school, friends, and peers."* Still another participant (P1) expressed the role of influencers in internet addiction among adolescents, stating that *"Influencers are also very influential in preventing and overcoming internet addiction in adolescents. They are expected to play an active role in setting an example of good internet usage."*

**Theme 4:** Health education about internet addiction during school orientation is important as a preventing program

The FGD revealed that most schools in West Java have not educated their students on internet addiction and have recently realized its importance. Almost all participants asserted that no health education about internet addiction is provided in their schools. The only education provided is about drug addiction. A participant (P2) said, *"new students are not debriefed on internet addiction because schools focus on prevention of drug addiction."* Another participant (P1) expressed that the large use of the internet for school work during the pandemic caused schools not to educate students about the dangers of the internet for teenangers. Below is her statement:

> *The school's orientation program committee identifies that students use the internet for learning. So, they are hesitating to introduce its dangers. They are hesitant to provide health education about internet addiction because, in fact, students need the internet to support their study program.*

Therefore, it is important to provide health education about internet addiction for all new students at schools. This was asserted by several participants, as follows: *"New students should learn about internet addiction, especially in elementary school,"* said P4. Another participant (P12) added, *"Frequent socialization on internet addiction is needed, similar to that done on drug addiction in the past by the extension team."* Furthermore, another participant (P8) declared, *"Usually children with internet addiction have lack of education on gadgets usage, including its effects on their daily lives."*

**Theme 5:** Digitalization and communication control programs affect the phenomenon of internet addiction among adolescents

This theme was conveyed by several participants and made a lively discussion. One participant stated that, in internet usage, the government should ensure safety of the public, including adolescents. A participant (P5) stated that *"there should be further meetings among the government, broadcasters, and Information Technology activists to create secure internet usage."*

Still another participant (P3) stated that the government should control the internet content. This participant added, *"The Government (Ministry of Education, Culture, Research, and Technology, and the Ministry of Communication and Information) should cooperate in overcoming harmful contents for adolescents, especially students, such as violent games and pornography."*

Participant P2 supported P5 and P3, who revealed that the government should firmly manage the internet addiction problem. They believed that the government should implement a filter system, like other countries such as North Korea and Iran that have banned some internet games. Therefore, the government should determine its capabilities in managing this case.

Participant P9 had a similar opinion and said,

> *Addiction to online games is a dilemma. It is caused by several influencers who make money from these games, thus inspire the children. The government should solve this dilemma. This can be by applying limited access to those online games, and also by educating people about the positive and negative impacts of online games.*

Another participant (P12) added her opinion about the importance of public education, provided by relevant agencies, by saying, *"Health education about internet addiction helps students understand its positive and negative impacts."*

## Discussion

**Theme 1:** A comprehensive assessment is needed to determine the right intervention for students who experience internet addiction

Internet addiction in adolescents is a complex problem. According to previous studies, teenagers with internet addiction experience various emotional problems that impact on their relationship with the real world such as parents, friends, school and other people (19). Therefore, in dealing with students who experience internet addiction, a comprehensive assessment is needed. A study conducted by Grady & Gough (2014) in the US supported the theme found in this study (20). Another study suggested the importance of a comprehensive approach in determining factors related to the cause of internet addiction (21).

No previous study focused specificaly on the importance of conducting a comprehensive assessment in the treatment of internet addiction. However, some studies have focused on treatment of or intervention in internet

addiction (14, 22–24). Therefore, the finding of this theme provides a new insight and adds to the knowledge about prevention and treatment of internet addiction.

**Theme 2:** Family is the main supporting factor in managing and preventing internet addiction in adolescents

Family is a system that directly or indirectly affects each member, where parents play a bigger role in shaping the children's behavior. Lack of attachment between children and parents is the major cause of internet addiction. Beside parent and child attachment, peer attachment and academic stress also contribute to internet addiction (25, 26). However, this article aims to further explore the specific role of parental involvement, particularly parental firmness, in regulating internet use, as a critical factor in managing and preventing internet addiction in adolescents (4). This aspect has not been fully addressed in previous research, which typically focused on general family support without emphasizing the need for structured parental involvement in controlling internet use (27).

Children experiencing internet addiction depend on the family as the main support. The family should be the first to accept and help the members experiencing problems (28). The lack of family support, for example because of having busy parents, prevents overcoming the problem of internet addiction in adolescents (25).

There is a lack of research on family support in managing adolescents with internet addiction. However, there were results about practitioners' perceptions of family involvement in treating adolescents with internet addiction (29). The closest theme to this research was that involvement of the family in treating internet addiction increased positive outcomes.

A strong family can prevent internet addiction in adolescents due to the potential to build capacity and strength in protecting members from potential damage or significant risk (30). Additionally, it provides optimal support when a member experiences problems. The findings of this study showed the importance of parental firmness towards children in internet usage to prevent addiction. This assertiveness is a form of mental support to limit internet usage.

The strength of this study, compared to previous studies, lies in its focus on the role of parental firmness and discipline in regulating internet use as an essential aspect of preventing and managing internet addiction. Previous research has primarily concentrated on family support in a general sense, but this study identifies the need for parents to actively set rules and limits around internet access to prevent addiction (31). This practical approach contributes new insights by addressing the actionable steps parents can take in combating internet addiction, which adds depth to the existing literature (32).

**Theme 3:** Various parties should cooperate to overcome internet addiction among adolescents

Several factors cause internet addiction in adolescents, including internal and external factors (25, 33). This research found that various parties including teachers, families, peers or friends, policy makers and influencers should cooperate in overcoming internet addiction among adolescents, while no previous research has revealed the importance of various parties' cooperation in overcoming internet addiction. Previous studies have focused on preventing internet addiction with a school-based intervention approach (34, 35), school and family-based techniques (31, 36) and theoretical frameworks (37–39).

Schools cannot manage internet addiction without parents' help and cooperation. In addition, relevant parties such as the Ministry of Communication and Informatics must restrict internet usage for adolescents to prevent access to negative contents like pornography. According to a survey on 1600 adolescent, almost all (97%) Indonesian adolescents have been exposed to pornography (40, 41). The role of peers is also very important. Peers should assist their colleagues struggling with internet addiction. So, the problem of internet addiction at school can be overcome through good cooperation from student counsellors, parents and peers, which should also be supported by restrictions on internet use for teenagers by the government.

**Theme 4:** Health education about internet addiction during school orientation is important as a preventing program

The findings showed that most schools in West Java do not hold a debriefing session about internet addiction for the new students. In addition, relevant parties do not provide schools with health educations about how to use internet wisely. Therefore, the first step schools should take is to provide education about internet addiction during the orientation program.

One important consideration when delivering information to students is the method of presenting the information, so that they would be attractive to them. The traditional mode of health education through lectures and discussions will bore the students, resulting in the loss of participation and interest. Using various methods to consider the sophistication of technology and interests of the youth will make the debriefings interesting and, thus, gain acceptance of the youth. As a result, they may follow the instructions, which will mean that the purpose may be achieved. The results of the research conducted by Neverkovich *et al.* (2018) show that it is necessary to design a program to prevent Internet addiction in young students and systematically plan its implementation within the framework of the educational space (42, 43). This is strongly supported by the research by Gaysina & Zakirova (2017), stating that the work of school teachers, student counsellors, and psychologists in the prevention of internet addiction should be complemented by cooperation from both the adolescents and their parents on particular programs (44).

One participant pointed out to the need to provide health education about internet addiction on a regular basis to

refresh the students. It is recommended to provide health education on the dangers of internet addiction every 3 months in all Indonesian schools.

**Theme 5:** Digitalization and communication control programs affect the phenomenon of internet addiction among adolescents

There are an increasing number of internet users in Indonesia, with the largest numbers being among the youth (45). Various social media sites such as Instagram, Tiktok, Youtube, and Line freely display their contents. Therefore, it is difficult to control contents like pornography. Adolescents have a high curiosity; trying to determin their identity, while lacking self-control. A lack of control over the internet sites negatively impacts their mental health (46). Thus, the fifth theme of this research found that this is a major concern requiring a solution. The government should know the problems surrounding internet addiction among adolescents to implement appropriate action. Rules, laws or regulations on internet usage are required, for example, age restrictions and banns on non-educational sites (3).

Furthermore, internet functionality should be restored to support and facilitate human life instead of causing problems. It should, for example, be determined whether social media has more positive or negative impacts on users. Previous research found that the internet caused several negative impacts, especially through the social media, including on adolescents' physical, mental, social, and spiritual health (19, 47).

Some countries like China and Korea have implemented national policies in managing the problem of internet addiction. Therefore, the Indonesian government should take immediate action to address this critical problem among adolescents as the future generation.

Based on the findings of this study, there is a clear need for further research to explore internet addiction interventions across different adolescent populations, including those from rural or varying socio-economic backgrounds. While this study focused on adolescents in West Java, expanding the research to other settings would help develop more tailored interventions. Future studies could also investigate gender differences in internet addiction and its mental health impacts, as well as the effectiveness of cultur specific prevention strategies. Additionally, strengthening preventive measures is crucial (11). This includes enhancing health education, fostering family involvement, and promoting collaborative efforts between teachers, counsellors, parents, peers, and policymakers. Schools and families must take a more active role in educating adolescents about the risks of internet addiction and in establishing clear guidelines for healthy internet usage. Incorporating regular sessions about digital health and safe internet practices into school curricula could be an effective way to instill good habits at a young age. Furthermore, as digitalization continues to rise, it is imperative to consider the implications of digitalization and communication control programs for policy

development. Government regulations, such as age-based restrictions on internet use, monitoring of non-educational content, and the promotion of digital literacy, are essential to safeguard the well-being of adolescents. Policymakers, in collaboration with schools and parents, should work together to address the growing issue of internet addiction (48). Looking to countries with existing digital control measures, such as China and South Korea, could provide useful insights into how such policies might be adapted to Indonesia's context.

## Limitation

The limitations of this study include challenges related to participant engagement during FGD. Specifically, some participants tended to dominate the conversations, while others remained relatively inactive. To mitigate this issue, efforts were made to provide equal opportunities for all participants, with researchers actively encouraging those who were more passive to share their thoughts and contribute to the discussion. However, this inherent variability in participant engagement may have affected the depth and breadth of the data gathered. Additionally, while this study offers valuable insights into the treatment and prevention of internet addiction among adolescents and presents findings potentially transferable to populations with similar cultural backgrounds, its generalizability to broader populations remains limited. Therefore, further research with diverse participant groups is recommended to strengthen the evidence base and explore potential variations across different settings and demographic profiles.

## Conclusion

In sum, five themes arise from this study, which are the need for a comprehensive assessment to determine appropriate interventions, family as the main supporting factor in managing and preventing internet addiction, various parties' cooperation in overcoming internet addiction, health education about internet addiction during school orientation, and the importance of digitalization and communication control programs. Based on the results of this research, several themes emerged that reveal student counsellors' experiences when treating students with internet addiction. These counsellors agreed that a comprehensive assessment was necessary to provide appropriate intervention. Apart from that, there is also a need for parental involvement and government policies and related institutions regarding internet addiction in teenagers to prevent this. The themes are essential in developing programs to manage internet addiction problems and government policies should support the prevention program for internet addiction among adolescents. Strengthening family participation, cooperation of various parties, government roles, and promoting health education on wise internet use among adolescents are important steps

to take. Futhermore, this study can be a source of information for families, health care workers, and the government to treat and prevent Iternet addiction among adolescents. The effective intervention to manage and control internet use should be formulated in the future.

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## Conflict of Interest

None.

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