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Description of Problematic Internet Use (PIU) Behavior among Teenagers

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Abstract

Background: This research aims to provide insights into the phenomenon of Problematic Internet Use (PIU) among adolescents. Utilizing a descriptive quantitative approach, it seeks to characterize the prevalence and patterns of PIU in this demographic.

Objective: The primary objective of this study is to describe Problematic Internet Use (PIU) among adolescents aged 13-18 years.

Method: The study employed a purposive sampling technique, involving 399 teenagers within the specified age range. The Generalized Problematic Internet Use Scale 2 was utilized as the measuring instrument. Data analysis was

conducted through frequency distribution percentages.

Result: The research findings revealed that 69% of adolescents exhibited moderate tendencies towards Problematic Internet Use (PIU), with 21% classified as high and 10% as low. Additionally, the majority of subjects spent 6-9 hours per day on the internet.

Conclusion: This research underscores the prevalence of Problematic Internet Use (PIU) among adolescents and emphasizes the need for understanding and awareness among parents, teenagers, and educators to mitigate its adverse effects.

Keywords: Problematic Internet Use (PIU), Internet, Teenagers

Introduction

Technological developments are currently progressing very rapidly, especially the internet. The Internet (Inter-Network) is a communication network that connects one electronic device with others such as computers, laptops, cell phones, or tablets (Mascheroni & Olafsson, 2013) ^[12]. The Internet can be accessed by anyone, anytime, and anywhere, including seniors, adults, teenagers, and even children. According to a survey by the Indonesian Internet Service Providers Association (APJII, 2023), internet penetration among teenagers aged 13-18 years is 98.20%, for ages 19-34 years it is 97.17%, for ages 35-54 years it is 84.04%, and for those aged 55 years and over it is 47.62%. Based on this data, it can be seen that teenagers have the highest internet penetration rate.

The presence of great curiosity and the process of searching for identity make teenagers want to explore all the things they don't know, one of which is by using the internet (Santrock, 2017) ^[14]. Salgado, Boubeta, Tobio, Mallou, and Couto (2014) ^[13] grouped teenage internet users into two categories: The normal group and the group at risk of experiencing problematic internet use (Risk Group). Groups at risk of experiencing problematic internet use, or Problematic Internet Use (PIU), usually spend more than 5 hours per day online outside of use for learning. However, Saphira, Lessig, Goldsmith, Szabo, Lazoritz, Gold, and Stein (2003) ^[15] characterize individuals who experience Problematic Internet Use (PIU) as spending more than 2 hours per day, while Young (2011) ^[19] states that individuals experience excessive internet use if they spend more than an average of 40 hours per week or around 6 hours per day. Other findings by Dufour, Brunelle, and Tremblay (2016) ^[5] stated that individuals who spend 19.65 hours per week of screen time are associated with increased internet addiction.

Problematic Internet Use (PIU), as developed by Caplan (2010) ^[3], shows symptoms of maladaptive behavior and cognition in internet use, which negatively impacts academic, professional, and social life. Furthermore, Johepio, Wesonga, and Candia (2017) in their research stated that excessive internet use can cause addiction, waste of time, information overload, and isolation from the environment. Further findings show that half of the children and teenagers in South Africa are exposed to online sexual content, and survey data on children and teenagers in Italy and Uruguay found that 22% engaged in self-harm (suicide), and 35% experienced hate speech (cyberbullying) (Unicef.org, 2019) ^[17]. Based on the explanation above, it is hoped that the results of this research can serve as a guide for future researchers interested in Problematic Internet Use (PIU).

Methodology

Instrument

Problematic Internet Use (PIU) was measured using a questionnaire consisting of 13 items. This instrument is arranged based on a scale Generalized Problematic Internet Use Scale2 (GPIUS2). All items are measured 5 points on a Likert scale ranging from 1 (very inappropriate), 2 (not suitable), 3 (somewhat suitable), 4 (suitable), to 5 (very suitable). Then, the demographic questions included in the questionnaire are gender, age, and internet usage time.

Subject

The sample for this research was determined using the Isaac and Michael table from a certain population with an error rate of 1%, resulting in a sample size of 399 teenagers. The sample characteristics are teenagers aged between 13-18 years who use the internet. The sampling technique used is purposive sampling, where the sample is selected based on specific criteria predetermined by the researcher, in accordance with the objectives of the research

Analysis Method

This research utilizes a descriptive research strategy, which, according to Gravetter and Foranzo (2012) [6], involves a general approach used in research to measure a variable or series of variables to produce a description of individuals in a particular group. However, this research does not explain or describe the relationship between variables.

Result

Subject Characteristics

Table 1 illustrates the characteristics of the 399 individuals in this study. The number of female subjects was 228 (57.14%), while the number of male subjects was 171 (42.86%). Regarding age, the majority of subjects were aged 16-18 years, comprising 315 individuals (78.95%), whereas 84 individuals (21.05%) were aged 13-15 years. Concerning the duration of internet use, the majority of subjects spent between 6-9 hours per day, totaling 186 individuals (46.62%). Additionally, 101 individuals (25.31%) used the internet for 4-6 hours per day, while 94 individuals (23.56%) spent over 9 hours per day. Finally, 18 individuals (4.51%) reported using the internet for 1-3 hours per day.

Table 1: Description of Research Subjects

Demographics	Category	Number of subjects	Percentage
Gender	Male	171	42.86%
	Female	228	57.14%
Age	13-15 years old	84	21.05%
	16-18 years old	315	78.95%
Duration of Internet Use	1-3 Hours	18	4.51 %
	4-6 Hours	101	25.31 %
	6-9 Hours	186	46.62 %
	> 9 Hours	94	23.56 %
Total		399	

Problematic Internet Use (PIU) categories

13 items are used to measure Problematic Internet Use (PIU) with 5 points on a Likert scale, so the maximum total score is 65, and the minimum score is 13. Based on descriptive analysis, the average Problematic Internet Use (PIU) is 26, and the standard deviation is 8.6. The details can be seen in table 2 below:

Table 2: Hypothetical and Empirical Data

Statistical Description	Hypothetical Data	Empirical Data
Max	65	65
Min	13	16
Mean	26	38.87
SD	8.6	7,275

Subsequently, the total score is categorized into low, medium, and high groups to signify the degree of inclination towards Problematic Internet Use (PIU) behavior. This classification is depicted in table 5. Further examination reveals that the majority of subjects exhibited tendencies towards Problematic Internet Use (PIU) behavior in the low category, totaling 42 individuals (10%), while 274 individuals (69%) fell into the medium category, and 83 individuals (21%) were classified in the high category.

Table 3: Frequency Distribution of Problematic Internet Use (PIU) Behavior

Categorization	Number (N)	Percentage
Low	42	10%
Moderate	274	69%
high	83	21%
Total	399	100%

Discussion

Based on the results of descriptive analysis, it was observed that out of the 399 teenagers involved in the research, 274 individuals (69%) exhibited moderate tendencies in Problematic Internet Use (PIU) behavior. Additionally, 84 individuals (21%) were classified in the high category, while 42 individuals (10%) were categorized in the low category. This indicates that the phenomenon of problematic Internet Use (PIU) behavior is prevalent among the majority of teenagers. Similar findings were reported in a research conducted in Indonesia, as indicated by a survey from the Ministry of Communication and Information (2014), which revealed that 80% of the sampled children and teenagers in Indonesia displayed tendencies toward developing problematic internet usage behavior, such as engaging in continuous gaming without time limits, communicating with unknown individuals, cyberbullying, etc.

Judging from internet usage time, the majority of subjects spent internet time between 6-9 hours/day, accounting for 46.62% (186 people). Furthermore, 23.56% (94 people) of the subjects surfed the internet between 4-6 hours/day, while 25.31% (101 people) spent >9 hours/day on the internet. This indicates that the majority of subjects in this study are likely to experience the risk of Problematic Internet Use (PIU) behavioral tendencies. These results align with several pieces of research. For instance, Saphira (2003) [15] characterizes individuals experiencing Problematic Internet Use (PIU) with internet usage exceeding 2 hours/day. According to Salgado *et al.* (2014) [13], their research indicates that internet use surpassing 5 hours a day suggests a classification of Problematic Internet Use (PIU). Meanwhile, Young (2011) [19] suggests that individuals are considered to use the internet excessively if they spend an average of >40 hours/week or around >6 hours/day. Other findings by Dufour *et al.* (2016) [5] also suggest that a screen time of 19.65 hours/week is associated with increased

internet addiction. Based on the explanations above, it is predicted that the sample in this research is at risk of experiencing tendencies towards Problematic Internet Use (PIU) behavior.

Conclusion

Most of the teenagers, 69% (274 subjects), experienced a tendency for Problematic Internet Use (PIU) behavior in the moderate category. Meanwhile, 21% (83 people) were classified in the high category, and 10% (42 people) were in the low category. The majority of teenagers in this study spent between 6-9 hours/day, accounting for 46.62%. The amount of time teenagers spend on the internet predicts that teenagers in this study experienced a tendency towards Problematic Internet Use (PIU) behavior, which could have a negative impact on various areas including academic, professional, and social life. However, the researchers were limited, so they did not delve deeper into the subject. Suggestions are available for parents, teenagers, the community, and all related parties, including:

1. It is recommended that parents exercise supportive control and foster open communication with their children to minimize the tendency for Problematic Internet Use (PIU) behavior in children.
2. Offering positive activities for children, such as enrolling them in courses in specific fields, participating in extracurricular activities, pursuing hobbies, or engaging in social activities within the community. This is done to ensure that children continue to interact with others while engaging in constructive activities, thereby reducing the negative impact of the tendency for Problematic Internet Use (PIU) behavior.
3. It is advisable for all stakeholders, including government bodies, schools, and community institutions, to offer education to parents and teenagers on the effective use of the internet and its potential negative impacts.

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